



Value-focused negotiation versus integrative mindset: Reducing fixed-pie perceptions in integrative negotiations

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**Value-Focused Negotiation versus Integrative Mindset:
Reducing Fixed-Pie Perceptions in Integrative Negotiations**

Kai Fabian Henke

A thesis submitted in partial fulfilment of the requirements of
Sheffield Hallam University
and
Munich Business School
for the degree of Doctor of Business Administration

February 2023

Candidate Declaration

I hereby declare that:

1. I have not been enrolled for another award of the University, or other academic or professional organisation, whilst undertaking my research degree.
2. None of the material contained in the thesis has been used in any other submission for an academic award.
3. I am aware of and understand the University's policy on plagiarism and certify that this thesis is my own work. The use of all published or other sources of material consulted have been properly and fully acknowledged.
4. The work undertaken towards the thesis has been conducted in accordance with the SHU Principles of Integrity in Research and the SHU Research Ethics Policy.
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Abstract

Companies and individuals alike are eager for guidance on how to negotiate more effectively and often look to academics to translate the current state of knowledge for their own purposes. There is limited knowledge about why some negotiators suffer from the fixed-pie assumption while others can avoid this bias. The fixed-pie assumption is a misconception in which one party assumes, without verifying, that the objectives of both parties conflict. Given the frequency and importance of business negotiations, combined with various theories that claim to contribute to improving negotiation performance, a comparison of existing theories – at best, the falsification of one or more theories – is relevant to businesses.

This thesis aims to test and compare two theories, the scale for integrative mindset by Ade et al. (2020) and the value-focused thinking technique of identifying objectives by Keeney (1992), both of which claim to affect integrative negotiation performance. These theories have not yet been experimentally tested and compared to determine whether and in what combination their application generates superior outcomes in integrative business negotiations in the context of labour negotiations. To compare these theories, this research applies a deductive method of empirical testing in a laboratory experiment. To test and compare the two theories, a definition of business negotiation outcomes is first derived consisting of the Pareto efficiency of the individual economic outcome, the Pareto efficiency of the joint economic outcome, and the subjective value inventory of the counterpart. These business negotiation outcome indicators are supplemented by the integrative negotiation behaviours recommended by Weingart (1996) to form the framework of business negotiation performance.

Linear regression analyses reveal no significant effect of the score of the scale for integrative mindset on negotiation performance indicators. Analyses between the independent variable of the value-focused thinking technique of identifying objectives and the dependent variables of integrative negotiation performance indicators suggest that applying the value-focused thinking technique of identifying objectives has a significant effect on the subjective value inventory of the counterpart. Considering the findings of Curhan et al. (2010) that subjective values impact objective values in subsequent negotiations, the findings of this study can be utilised to create both subjective and economic value in recurring negotiations. Additionally, this study mainly supports and extends the results of Weingart (1996).

This thesis provides original insights into the scale for integrative mindset by Ade et al. (2020) and Keeney's (1992) value-focused thinking technique of identifying objectives. As this study mainly supports Weingart's (1996) integrative behaviours as predictors of the Pareto efficiency of the individual economic outcome and joint economic outcome and indicates that the application of the value-focused thinking technique is a predictor of the counterpart's subjective value inventory, this study effectively identifies a combination of methodologies to address all defined negotiation objectives. Furthermore, this thesis provides a basis for future research opportunities for redefining the scale for integrative mindset and offers suggestions for further research on the combinations of methodologies and indicators for improving negotiation performance.

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1. Introduction

1.1 Background of the Study

There is no shortage of disputes in business life, and negotiations are a common procedure to settle such disputes (Raiffa, 1982, p. 7). Bazerman and Neale (1992) even stated that 'Nothing is more central to business than negotiation' (p. 68). Labour negotiations are a frequent and often recurring dispute in business and were, therefore, chosen to provide the context for this research. In labour negotiations, disputants are faced with significant challenges, regardless of whether the negotiations are based on individual contracts or whether representatives of the parties (e.g. labour and management representatives) are negotiating collective labour agreements. In labour negotiations, there are usually several negotiating issues on the agenda (Balke, 1973), one fundamental issue typically being monetary labour compensation. With the narrow focus on this very issue and the economic fact that 'money is money' (Walton and McKersie, 1991, p. 129) and can only be distributed between the two parties, the impression could arise that labour negotiations only consist of one issue and are, therefore, distributive in nature. However, other agenda items are intertwined beyond monetary compensation and may be valued differently by the two parties (e.g., individual job security and management flexibility [Walton and McKersie, 1991, p. 129-130]). Moreover, the agenda is not limited to a universally defined set of negotiation items. For example, the timing of salary payments and raises, health and retirement benefits, mobility, working hours and holiday periods can be integrated into labour negotiations, as these individual items may be valued differently by management and/or labour representatives. Therefore, integrative negotiation in labour negotiations is 'applied to situations in which the total payoff

is varying sum in a significant way, even though both parties may not share equally in the joint gain, and indeed one may even suffer minor inconveniences in order to provide substantial gains for the other' (Walton and McKersie, 1991, pp. 127-128). The central principle of integrative negotiation is that to avoid a tug of war, the parties expand the overall picture to include other issues of value (Stoshikj, 2014, p. 38; Sharma, Bottom and Elfenbein, 2013, p. 298; Bazerman and Neale, 1992, p. 70; Walton and McKersie, 1991, p. 126; Raiffa, 1982, pp. 14-15). Lax and Sebenius (2002) suggested:

Rather than seeking directly to increase individual shares via a value-claiming orientation, [...] a joint focus on maximally expanding the total net economic pie, then allocating shares, can offer superior individual [...] results. (p. 26)

The question has arisen as to why many negotiators fail to recognize the integrative potential of negotiation and settle for a reduced outcome instead (Lax and Sebenius, 1986; Fisher and Ury, 1981; Pruitt, 1981). Although there is an interdisciplinary consensus that integrative negotiations lead to (1) faster closings, (2) a higher probability of reaching consensus, (3) a lower probability of one party rejecting a proposal, and (4) a stronger bond between the parties (Lax and Sebenius, 1986), little is known about why some negotiators tend to be better at integrative negotiations than other negotiators (Ade et al., 2020, p. 740). Many authors note that the reason for negotiators being more or less successful integrative negotiators could be one of the following (partly interdependent) two factors: (1) individual character traits (Ade et al., 2018; Sharma, Bottom, and Elfenbein, 2013; De Dreu, Weingart, and Kwon, 2000; Pinkley et al., 1995; Lax and Sebenius, 1986); and (2) the quantity and quality of information available (Schuster, 2020; Gettinger, Koeszegi, and Schoop, 2012; Weingart, 1996;

Pinkley et al., 1995; Bazerman and Neale, 1992; Roth, 1985; Roth and Malouf, 1979). Based on the assumption that these two factors explain why some negotiators tend to be better at integrative negotiations than others, negotiation research has defined a term for this obstacle: the fixed-pie assumption, which 'grows from the assumption that disputants' interests are perfectly opposed' (Bazerman and Neale, 1999, p. 1277). This "win-lose" perspective is due to a fundamental bias (Bazerman and Neale, 1992, p. 69). This thesis aims to test and compare two theories in the labour negotiation context, both of which claim to affect business negotiation performance: the scale for integrative mindset (SIM) by Ade et al. (2020) and the value-focused thinking (VFT) technique of identifying objectives by Keeney (1996). The business problem is presented in the subsequent section.

1.2 Business Problem Statement

Given that voluntary agreements are the cornerstone of a free market (Friedman, 1962, pp. 8–9), negotiation strategy is a crucial factor in the corporate context (Chapman et al., 2017, p. 953) and has been the subject of extensive academic debates in the field of organizational behaviour and management science (Brett and Thompson, 2016, p. 68; Peleckis, 2015, p. 106). In this context, labour negotiations have also long been the subject of research (Sengenberger, 2015; Walton and McKersie, 1991, p. 1). The relationship between employers and employees approximates a bilateral monopoly (Hieser, 1970, p. 55). Although it may be possible in particular situations for one party to have absolute bargaining

power over the other in a bilateral monopoly, the general principle is that 'neither party completely dominates the other in bargaining power' (Truett and Truett, 1993, p. 260). Accordingly, the relationship between employers and employees can be compared to a single provider of one issue and a single buyer of one issue, with the issue being "labour". Walton and McKersie (1991) mentioned that the 'determination of wages, hours, and working conditions [...] involves the allocation of scarce resources [...] and is assumed to be some conflict of interest between management and unions' (p. 11). The multitude of negotiation issues indicates the integrative potential, as there are several parties and multiple issues to be negotiated (Raiffa, 1982, p. 131). The "negotiator's dilemma", which describes the conflict between creating and claiming value, still applies to integrative negotiations (Lax and Sebenius, 1986, p. 154), and Bazerman et al. (1999) noted:

In multi-issue negotiations that characterize many real-world conflicts [e.g., labour negotiations], it is not difficult to understand how the parties could fail to identify each other's preferences correctly. (p. 1283)

On the one hand, the fixed-pie assumption is attributed to the cognitively complex situations in which the negotiating parties generalize competitive negotiations. On the other hand, this tendency is shaped by social norms, which are influenced by 'a society in which athletic competitions are far too frequently used as a metaphor' (Bazerman et al., 1999, p. 1285). This thesis uses negotiation research's economic, psychological, and sociological perspectives to derive performance indicators for avoiding the fixed-pie assumption in integrative negotiations. To achieve this, the Pareto efficiency of individual economic outcomes (PIEO), the Pareto efficiency of joint economic outcomes (PJEO), and the subjective value inventory (SVI) of the counterpart serve as integrative

negotiation outcome indicators for avoiding the fixed-pie assumption in integrative negotiation (see also Sharma, Bottom, and Elfenbein, 2013, p. 293). Moreover, by adding Weingart's (1996) described integrative negotiation behaviours of gathering high-quality and quantitatively complete data by (a) making multi-issue offers, (b) providing information about priorities across issues, (c) asking questions about priorities, (d) suggesting packaging, and (e) suggesting delayed reciprocity (Weingart et al., 1996, p. 1214), a framework for integrative negotiation performance can be derived for this thesis.

According to Ade et al. (2020, p. 740), little is known about why some negotiators are better at integrative negotiations than others. The factors that might obstruct integrative potential in labour negotiations are inappropriate personality traits of the negotiators and an inappropriate methodological approach to negotiations (cf. Pinkley, 1995, p. 110). Both factors that can be considered in the pre-negotiation phase (Peterson and Lucas, 2001) are presented in the problem statements in the following paragraphs. Deutsch (2014, p. 15) claimed that a win-win orientation is essential during conflict resolution. In contrast, the win-lose orientation hinders conflict resolution. However, there is limited knowledge about why some negotiators suffer from the fixed-pie assumption and why some negotiators can avoid this bias. Businesses need clarity on whether the scale for an integrative mindset proposed by Ade et al. (2020) should be applied in practice to reduce fixed assumptions and improve negotiation performance. If this knowledge is created, the following problem could be solved:

Business Problem 1: Organizations and their representatives may use the scale for integrative mindset proposed by Ade et al. (2020) to test the personality traits of negotiators.

However, the effectiveness of the scale for integrative mindset for achieving integrative negotiation objectives has not yet been confirmed in a laboratory experiment.

The second factor that might obstruct integrative potential in labour negotiations is an inappropriate methodological approach. According to Keeney (1992), when faced with decision problems, people tend first to identify alternatives and then consider the objectives or criteria for evaluating the alternatives: 'You first figure out what alternatives [are] available and then choose the best of a lot' (p. 4). Based on Keeney's theory that VFT supports negotiators in integrative negotiations (Keeney, 1992; Keeney, 1994; Keeney, 1996), it is argued that negotiators have an advantage and achieve superior negotiation results through preparation using the VFT technique of identifying objectives. Therefore, applying VFT in the negotiation context could help parties identify and structure goals to avoid the "fixed pie" fallacy. Businesses need clarity on whether the VFT technique of identifying objectives proposed by Keeney (1994) should be applied to reduce fixed assumptions and improve negotiation performance. If this knowledge is created, the following problem could be solved:

Business Problem 2: Organizations and their representatives may use the VFT technique of identifying objectives by Keeney (1994) in the pre-negotiation phase. However, the effectiveness of the VFT technique of identifying objectives for achieving integrative negotiation objectives has not yet been confirmed in a laboratory experiment.

Sharma (2015) concluded that 'given the importance and prevalence of negotiations in business settings, it merits further investigation to explore why some negotiators underperform while others succeed in achieving their desired outcomes' (p. 96). The following section further details the research aims, objectives, and questions.

1.3 Research Aim, Objective, and Questions

The goal of this study is to test and compare two theories that claim to affect negotiation performance: the scale for integrative mindset (SIM) by Ade et al. (2020) and the value-focused thinking (VFT) technique of identifying objectives by Keeney (1992). Ade et al. (2018) contended that the negotiator's mindset is one potential explanation for why some negotiators tend to achieve better results in integrative negotiations. Ade et al. (2020, p. 740) consequently sought to map and measure the integrative mindset with a structured questionnaire, the 15-item SIM. In contrast, Keeney (1992) believed that values should be the driving factor in negotiations and proposed a methodological approach that enables negotiators to identify integrative components of negotiation and thereby influence the outcome of the negotiation in utility-driven conflicts. Keeney (1996) introduced the question-based VFT technique of identifying objectives for the systematic qualitative structuring of values.

Both above theories were published and peer-reviewed. However, the two theories have not yet been experimentally tested and compared. The present study addresses this research gap.

Therefore, the objective of this research is to test both theories in a laboratory experiment to answer the following questions:

1. To which extent is the scale for integrative mindset score a predictor of integrative negotiation performance in the context of labour negotiations?
2. To which extent is the application of the value-focused thinking technique of identifying objectives a predictor of integrative negotiation performance in the context of labour negotiations?
3. In which combination does the application of one of the two theories lead to better results in integrative business negotiations in the context of labour negotiations?

The following section presents the significance of this study.

1.4 Significance of this Study

Companies and individuals are eager for guidance on how to negotiate more effectively and often look to academics to translate the current state of knowledge for their purposes (Chapman et al., 2017; Sharma, 2015; Sharma, Bottom, and Elfenbein, 2013; Thompson, 2008; Malhotra and Bazerman, 2007; Brett, 2001). A challenging aspect of managers' work has long been the ability to negotiate agreements under conditions of uncertainty (Gebelein et al., 2004; Lax and

Sebenius, 1986; Mintzberg, 1973; Sayles, 1964). Sharma et al. (2019) noted that an 'organization that can train and/or select better negotiators [...] functions more effectively' (p. 145). Furthermore, Chapman et al. (2017) argued:

Negotiation skills are obviously valuable and pervasive across many organizations, so recognizing the development process of obtaining such skills has implications for both academics and practitioners. (p. 953)

This research poses two practical implications for organizations: (1) exploration of the relevance of identifying appropriate negotiator characteristics using the scale for the integrative mindset to exploit the integrative potential; and (2) provision of insights for sharpening training programmes to equip negotiators with appropriate tools using the VFT technique of identifying objectives to exploit the integrative potential. These two implications are detailed in the subsequent paragraphs.

Ade et al. (2018) argued that negotiators' mindsets would likely significantly impact negotiation outcomes. Accordingly, it is hypothesized that a negotiator with the appropriate mindset for exploiting integrative potential should be selected in negotiations with integrative potential. In short, the person with the best "person-job fit" should execute the negotiation. Although some researchers consider it unethical to make practical use of such knowledge because the individuals affected cannot do anything about their mindset (Bazerman and Carroll, 1987), this knowledge can still be of value. Affected individuals themselves could utilize insights regarding their strengths and weaknesses, for example, to shape situations according to their strengths or to ask a colleague or representative to fulfil a negotiation task to exploit better the integrative potential (Sharma, Bottom, and Elfenbein, 2013, p. 321). In terms of the theoretical

contribution, this research is expected to disprove the effectiveness of the scale for integrative mindset. Thus, the expected practical contribution would be that companies and individuals gain knowledge that the individual score on the scale for integrative mindset does not affect the exploitation of the integrative potential of a negotiation. Thus, companies and individuals would not use the scale for integrative mindset in vain to identify the best "person-job fit", thereby saving time and/or finding other ways to identify negotiators with the best "person-job fit".

A second implication is enhancing training programmes to equip negotiators with appropriate tools. O'Connor and Adams (1999) found that training improves negotiation effectiveness. However, critics argue there is still room to improve effectiveness (Chapman et al., 2017; Lewicki, 2014; Movius, 2008). Keeney (1996) proposed a methodological approach that enables negotiators to structure their values to identify the integrative components of negotiation. For the systematic qualitative structuring of values, Keeney (1992, p. 57; 1994, p. 34) introduced a question-based VFT technique for identifying objectives, including a set of 22 questions in 10 dimensions. In terms of theoretical contribution, this research is expected to disprove the effectiveness of the VFT technique for identifying objectives. Thus, the expected practical contribution would be that companies and individuals would recognize that negotiation preparation with the VFT technique of identifying objectives has no impact on utilising the integrative potential of a negotiation. Thus, companies and individuals would not use the VFT technique of identifying objectives in vain to prepare for a negotiation, thereby saving time and/or finding other ways to prepare for negotiations.

In conclusion, institutions require negotiators to allocate scarce resources and resolve conflicts of interest through mutually agreeable solutions for both parties.

If a negotiation contains integrative elements, which is the case in labour negotiations, effectively selected and/or effectively trained negotiators can help to recognize and exploit integrative elements. However, the methods to be applied should be scientifically derived and tested for effectiveness. The following section presents a summary of the selected methodology.

1.5 Summary of Methodology

This study looks at two theories about how much personal preferences (SIM) and/or a methodological approach using the VFT technique of identifying goals in the pre-negotiation phase affect how well business negotiations go. This thesis employs a derived framework for negotiation outcomes consisting of the Pareto efficiency of individual economic outcomes, the Pareto efficiency of joint economic outcomes, and the subjective value inventory of the counterpart (see Sharma, Bottom, and Elfenbein, 2013, p. 293). In addition, this research extends these negotiation outcome indicators by adding the following integrative negotiation behaviours prescribed by Weingart (1996) for gathering high-quality and quantitatively complete data: (a) making multi-issue offers; (b) providing information about priorities across issues; (c) asking questions about priorities; (d) suggesting packaging; and (e) suggesting delayed reciprocity. The two theories—the SIM by Ade et al. (2020) and the VFT technique of identifying objectives by Keeney (1994)—have not been evaluated in comparative research to date. Popper argued ‘that one cannot verify a theory; one can only disprove it’

(Popper in Derksen, 2019, p. 450). Therefore, Popper (1972, p. 9) suggested the following four ways of testing a theory:

- (1) Examination of the internal consistency of a theory and logical comparison of conclusions.
- (2) Examination of a theory regarding its empirical or scientific character.
- (3) Proper testing of a theory by the comparison of two theories.
- (4) Testing a theory by empirically applying the conclusions derived from it.

As both theories—the SIM by Ade et al. (2020) and the VFT technique of identifying objectives by Keeney (1994)—were published and peer-reviewed, the internal consistency of the theories, their conclusions, and their scientific character will be assumed. However, the theories have not yet been experimentally tested and compared. Based on this research gap, Popper's recommendations (3) and (4) are applied to determine if and in what combination the application of the two theories generates superior outcomes in integrative business negotiations in the context of labour negotiations. A deductive method of empirical testing is applied to compare the two theories. This approach provides an original contribution to scientific knowledge. The central element of this study is a two-party, multi-issue, quantifiable negotiation case. In this case, dyads are negotiating a labour contract. This type of task has been used by various negotiation researchers (Giacomantonio et al., 2010, pp. 826–827; De Dreu and Carnevale, 2006, p. 215; Pruitt and Lewis, 1975; Balke, 1973). Participants are assigned either the role of a labour representative or a management representative. Labour representatives and management

representatives negotiate five issues: salary, vacation, annual raise of salary, insurance, and union strike. A pilot study was conducted in November and December 2021. A group of 20 participants participated in two pilot study sessions. Following the pilot study, the results were analysed. In alignment with Professor Jack Nasher-Awakemian and, subsequently, Professor Emma Martin, four lessons were learned from the pilot study: (1) adjustment of the sample size; (2) adjustment of the participants' characteristics; (3) adjustment of the SVI questionnaire; and (4) no adjustment to the procedure, task, or research design. The laboratory experiments were conducted between March 2022 and May 2022. As a result of the COVID-19 pandemic and the limited opportunities for classroom events, the study was conducted online. All participants were recruited via email. The experiments were conducted using an internet-based video conferencing application (Microsoft Teams) and documented using an online survey application (SurveyMonkey). In total, 104 participants participated in the experiment and formed 52 dyads.

The following section outlines the structure of this thesis.

1.6 Thesis Structure

This thesis is structured into five chapters. The following diagram illustrates the structure of this work and is explained in the remainder of this section.

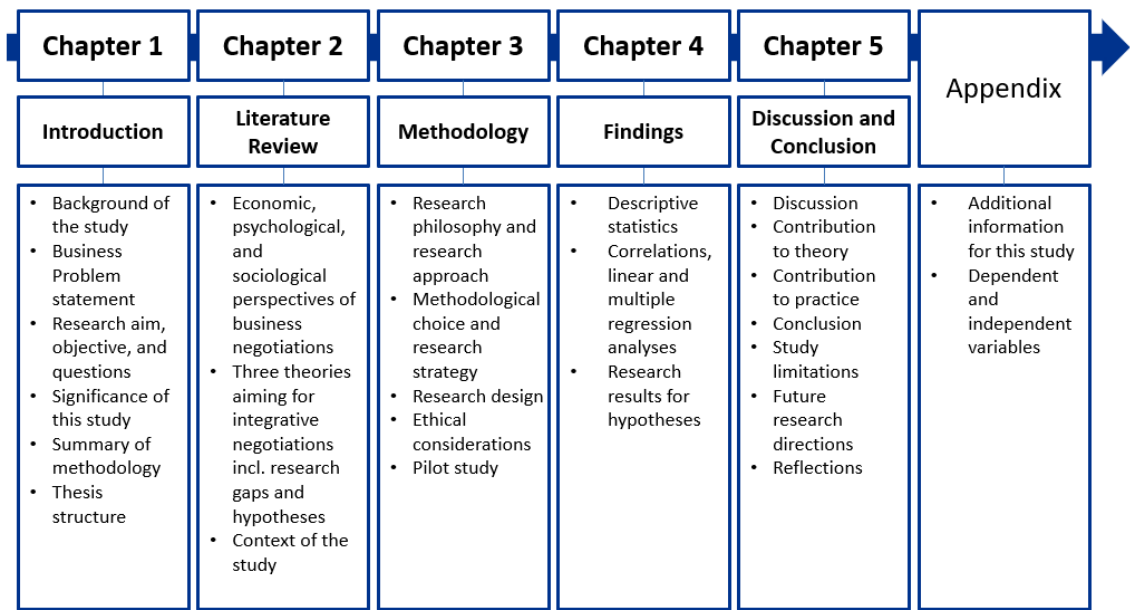


Figure 1: Structure of this thesis (devised by the author)

The first chapter introduced the research topic of integrative business negotiations and the fixed-pie assumption (see Bazerman and Neale, 1992, p. 69). This chapter subsequently outlined the business problem of limited possibilities for organizations and their representatives to test the relevant personality traits of negotiators and the use of inappropriate methodological approaches in the pre-negotiation phase (see Sharma, 2015, p. 96), which impact the benefits of exploiting the integrative potential in business negotiations (see Lax and Sebenius, 1986). The research objectives were then introduced: to test and compare two theories, the SIM by Ade et al. (2020) and the VFT technique of identifying objectives by Keeney (1992), which both claim to affect negotiation

performance. Finally, this chapter described the applied methodology of testing and comparing the theories and applying the conclusions derived from them in a two-party, multi-issue quantifiable negotiation case (see Giacomantonio et al., 2010, pp. 826–827; De Dreu and Carnevale, 2006, p. 215; Pruitt and Lewis, 1975; Balke, 1973). Chapter 2 is a literature review structured into three sections to provide the foundation for testing and comparing the two theories. First, three perspectives of business negotiation research are presented and discussed to derive a comprehensive definition of business negotiation performance for this thesis. The second section of this literature review presents the theories under consideration in business negotiation, outlines the research gaps, and formulates the hypotheses. Third, the context of labour negotiations as a specific category of business negotiation is presented and considers the parties involved, the unique elements of labour negotiations, the problem, and the implications of this thesis for labour negotiations. Chapter 3 details the methodology of this study and follows the suggestions of Saunders et al. (2019) for developing the research design for this thesis. First, this chapter introduces the researcher's philosophical positioning and highlights Popper's (1972) suggestions for testing a theory, including comparison with other theories and empirical application of the conclusions. Second, the main methods used in negotiation research are discussed and assessed to justify the methodological choice and research strategy that allow for maximum validity, reliability, and generalisability of this study's conclusions. Third, to generate reproducible research results, the research design, sampling procedure, data collection process, and data analysis process are presented. Fourth, the ethical principles of the researcher and Sheffield Hallam University are presented. Chapter 3 presents the experimental

design and procedure, the sample, and the data collection methods. Finally, the process and findings of the pilot study are presented to derive final adjustments for the preliminary study. Chapter 4 outlines the findings of this study. This chapter first presents the descriptive statistics for the independent variables, including control variables (age, gender, and professional experience), groups and roles (experimental vs. control group), and SIM scores. This chapter then presents the data summary for the dependent variables of PIEO, PJEO, SVI of the counterpart, and integrative negotiation behaviours. The correlation analyses, linear regression analyses, and multiple regression analyses of the independent and dependent variables are then introduced. Finally, Chapter 4 details additional analyses concerning one's own SVI as a predictor of the SVI of the counterpart. Finally, Chapter 5 delivers the discussion and conclusion of this study. First, this chapter discusses the theoretical contribution of this research. This section presents and discusses the results of the research on the scale for integrative mindset, the value-focused thinking technique of identifying objectives, the empirical comparison of the two theories, the integrative negotiation behaviours, and the control variables. The second section discusses two practical contributions of this research: identifying suitable negotiators and sharpening negotiation training programmes. The third section provides the conclusions derived from this study. After presenting the limitations of this study in the fourth section, recommendations for future research projects are outlined in Section 5. The concluding section of this chapter addresses the author's reflections regarding the present study.

2. Literature Review

‘Nothing is more central to business than negotiation’

(Bazerman and Neale, 1992, p. 68)

This thesis aims to test and compare two theories in the labour negotiation context that claim to influence business negotiation performance. The literature review is structured into three sub-chapters to provide the foundation for testing and comparing the theories that have yet to be tested empirically. First, three different perspectives of business negotiation research are presented and discussed to derive a comprehensive definition of business negotiation performance for this thesis. The second part of this literature review presents the theories under consideration – the SIM by Ade et al. (2020), the VFT technique of identifying objectives by Keeney (1994), and the integrative negotiation behaviours by Weingart et al. (1996) – in the business negotiation context, outlines the research gaps, and presents the hypotheses. The third part of this literature review presents labour negotiations as the context of this thesis.

2.1 Perspectives of Business Negotiation Research

To conduct business negotiation-related research, three underlying perspectives must be considered: economics, psychology, and sociology (Walton and McKersie, 1991, p. 1). This literature review dedicates a section to each perspective. Within each of these sections (economics, psychology, and sociology), a brief overview of the history of business negotiation research provides information on the developments and the respective definitions of negotiation within the field of business negotiation science, as business negotiation science, like any field of science, is in a constant process of development. All sections on the perspectives conclude with distinct indicators of business negotiation performance, which are finally cumulated into a comprehensive set of integrative business negotiation performance indicators for this thesis.

2.1.1 Economic Perspectives of Business Negotiation Research

The literature review for this section was conducted using the Sheffield Hallam University Online Library as well as the Bayerische Staatsbibliothek in Munich. It included the following search terms: 'negotiation', 'negotiation' refined with 'business', 'negotiation' refined with 'integrative', 'negotiation' refined with 'measurement', and 'game theory'. All keywords were paired with the term 'bargaining'. The literature references of the usable articles were examined in a further step for additional articles. The analysis criteria defined were the coverage range, the applications to integrative business negotiations, and the application to the history of negotiation research. Subsequently, the appropriate publications

were selected to compile this literature review. The publications presented in Appendix 1 are considered the most relevant publications.

In the middle of the twentieth century, game theory dominated academic research in the field of negotiation (Thompson, Wang and Gunia, 2010; Bazerman et al., 2000, p. 279; Kuhn, 1962, p. 1). Kuhn (1962) described the game theory as follows:

A branch of mathematics that aims to analyse conflict problems by abstracting standard strategic features for study in theoretical 'models' – termed games because they are patterned on actual games [...]. (Kuhn, 1962, p. 1)

Games are a simple and effective way to illustrate people's behaviours, and 'game theory aims at explaining what it means to behave rationally in situations, in general, involving two or more people, called agents or players' (Lucchetti, 2017, p. 151). A basic assumption for game theory is that all possible outcomes of a given situation are well specified, and everyone has a certain preference pattern (Luce and Raiffa, 1957, p. 4). Intending to develop the science of economics by following the example of the natural sciences, it was mainly von Neumann and Morgenstern (1944) who introduced mathematics into negotiation science. Von Neumann and Morgenstern (1944) specifically argued for the use of mathematics in economics:

It is, without doubt, reasonable to discover what has led to the progress in other sciences [physics, biology and chemistry are meant] and to investigate whether the application of the same principles may also lead to progress in economics. (Neumann and Morgenstern, 1944, p. 4)

It is by no means the case that von Neumann and Morgenstern ignored the arguments of psychological and sociological factors. It was much more the belief

that mathematics provided breakthroughs in other disciplines and thus had its justification in business negotiation research. Even though von Neumann and Morgenstern (1944) defined rationality as striving for maximum utilisation or satisfaction (pp. 8–9), they admitted that, at that time, there was ‘no satisfactory measurability treatment of the human element, psychological factors, or rational behaviour’ (p. 3). Using rational and mathematical understanding, two elements of negotiation are differentiated in the economic perspective of negotiation: distributive negotiation elements and integrative negotiation elements. Walton and McKersie (1991) noted:

The test of time has confirmed the usefulness of conceptualizing the two polar yet interdependent decision processes – which we call distributive and integrative bargaining. (Walton and McKersie, 1991, p. xxv)

Raiffa (1982) also differentiated between the two types of negotiations: "distributive" (p. 33) and "integrative" (p. 131) negotiations, which are classified by the number of issues to be negotiated. An issue is formally defined as ‘an area of common concern in which the objectives of the two parties are assumed to be in conflict’ (Walton and McKersie, 1991, p. 5). Even if the terminology of the individual poles differs among authors (Pruitt, 1981: "contending vs cooperating"; Lax and Sebenius, 1986; 2002: "claiming value vs creating value"; Fisher and Ury, 2012: "positions vs interests"), what is essentially meant are more comparable types of negotiations in decision-making processes (Walton and McKersie, 1991, p. xxv). This thesis will employ "distributive bargaining" and "integrative negotiation". These two poles, their interdependencies, and the indicators for negotiators’ outcomes within these types of negotiations are presented and discussed in the subsequent sections.

2.1.1.1 Distributive Elements of Negotiation

Distributive bargaining is a method for resolving conflicts of interest. It is described in game-theoretical terminology as 'fixed-sum games'—'the activity of dividing limited resources' (Walton and McKersie, 1991, p. 11). Sharma et al. (2013) mentioned that distributive bargaining is primarily competitive (p. 297) and 'interests are completely opposed' (p. 298). Distributive bargaining is comparable to a tug of war. It is a zero-sum game, as one party's gain is the other party's loss. According to Sebenius (2015),

Distributive bargaining has often come to be associated with an antithetical approach to negotiation, a behavioural style that is positional, individualistic, competitive, contending, and "win-lose". This approach entails efforts to "divide the pie" advantageously. (Sebenius, 2015, p. 340)

Raiffa (1982) defined distributive bargaining as follows:

In the distributive case, one single issue, such as money, is under contention, and the parties have almost opposing interests on that issue: the more you get, the less the other party gets, and – with some exceptions and provisos – you want as much as you can get. (Raiffa, 1982, p. 33)

This thesis aims to test and compare two theories in labour negotiation that claim to affect negotiation performance. Based on the economic perspective, the resulting question is as follows: What is the outcome measure in distributive bargaining?

Agnadal (2017) noted that 'there are different types of negotiation outcomes present in business negotiation research' (p. 494), and distributive bargaining, with a small number of negotiation issues, focus on economic or mathematical

concepts. Raiffa (1982) presented distributive bargaining with the following assumptions: First, every negotiator, be it a buyer or a seller, for example, holds a threshold value that they do not want to fall below or exceed in the bargaining. Raiffa used Fisher and Ury's (1981) notion of the 'Best Alternative to a Negotiated Agreement' (BATNA). The buyer has a reservation price of b , the maximum price the buyer is willing to pay. In addition, there is a final contract value of x^* . If x^* is greater than the reservation price b , that creates a worse situation for the buyer than no agreement. However, if x^* is less than b , the discrepancy ($b - x^*$) can be called the buyer's surplus. The seller has a reservation price s , the minimum price the seller is willing to accept. The final contract value of x^* must not be smaller than s , creating a situation for the seller worse than no agreement. If x^* is larger than s , then the $x^* - s$ represents the seller's surplus. Second, if the maximum price with which the buyer is satisfied is lower than the minimum price with which the seller is satisfied ($b < s$), there is no possible zone of agreement. Suppose the final contract x^* is between s and b , the seller's surplus is $x^* - s$, and the buyer's surplus is $b - x^*$. Third, the sum of the surplus values ($b - s$) is independent of x^* . Therefore, distributive bargaining appears to be constant in sum (Raiffa, 1982), and 'from an efficiency perspective, trade should take place', and settlement is expected at the middle of the bargaining zone (Nash, 1950 in Blount et al., 1996, p. 2). The only exception is when no contract is reached because the bargaining parties do not reach a mutually acceptable x^* . Accordingly, Raiffa (1982) spoke of a quasi-constant sum. This geometry of distributive bargaining is illustrated in the following figure:

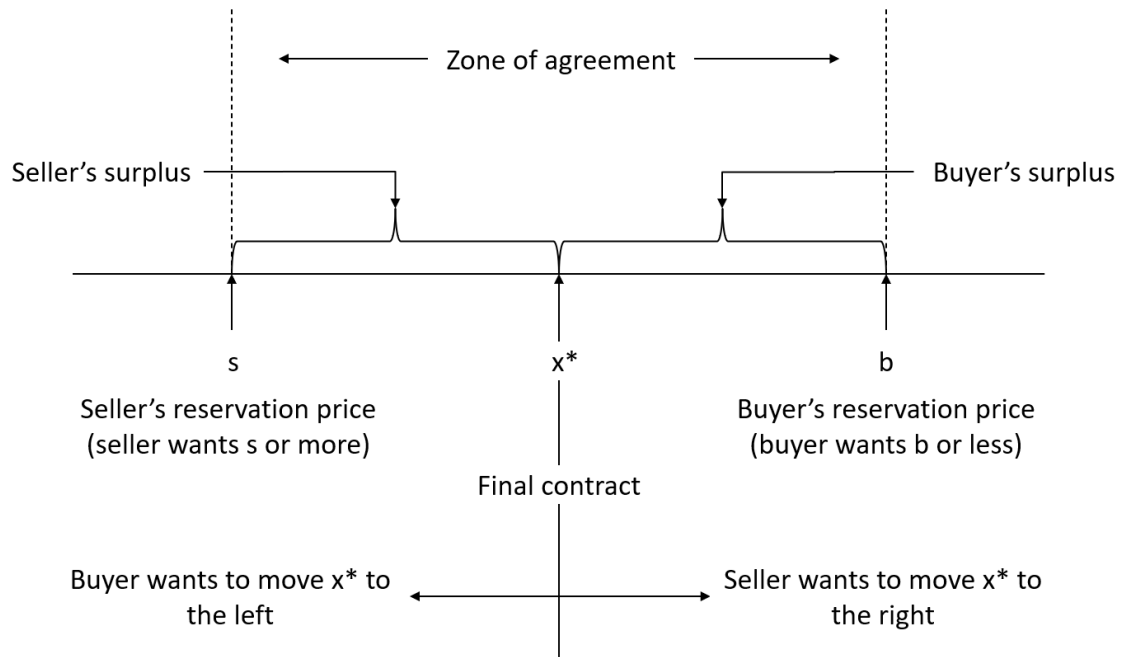


Figure 2: The geometry of distributive bargaining (adapted from Raiffa, 1982, p. 46)

Blount et al. (1996) mentioned that ‘the bargaining zone model forms the bedrock of modern negotiation theory’ (p. 1). Therefore, the results of distributive bargaining must be considered when assessing negotiation outcomes (Sharma, Bottom and Elfenbein, 2013, p. 293). For this thesis, the economic perspective for bargaining outcome indication in distributive bargaining is both parties' respective individual economic outcomes (reservation price +/- final contract value).

2.1.1.2 Integrative Elements of Negotiation

The second pole within the economic perspective of negotiations is integrative negotiation. The central principle of integrative negotiation is that to avoid a tug of war, the parties expand the overall picture, including other issues of value (Stoshikj, 2014, p. 38; Sharma, Bottom, and Elfenbein, 2013, p. 298; Bazerman and Neale, 1992, p. 70; Walton and McKersie, 1991, p. 126; Raiffa, 1982, pp. 14–15). Lax and Sebenius (2002) suggested that ‘rather than seeking directly to

increase individual shares [individual economic outcomes] via a value-claiming orientation [distributive bargaining], [...] a joint focus on maximally expanding the total net economic pie, then allocating shares, can offer superior individual [...] results' (p. 26). Lax and Sebenius (2002) further mentioned that 'by joint action, the parties to a successful negotiation each seek to advance the full set of their interests relative to their no-agreement alternatives; thus the "pie" can be expanded or value created through agreement' (p. 6). According to De Dreu, Weingart, and Kwon (2000), many negotiation scenarios offer integrative potential: 'Parties' interests are neither completely opposed nor completely compatible, allowing agreements that satisfy both parties' aspirations' (p. 889). This was also observed by Bazerman et al. (1999), who stated that 'most disputes involve some integrative element' (p. 1278). Raiffa (1982) defined integrative negotiation as 'converting a single-factor problem into a multiple-factor problem'. Such bargaining—in which there are two parties and several issues to be negotiated—is called integrative bargaining (p. 131), or in other words, '[both parties] can cooperate in order to enlarge the pie that they eventually will have to divide' (p. 131).

Furthermore, Fisher and Ury (2012¹) described the integrative method of negotiation in the following paragraph:

Behind opposing positions lie shared and compatible interests and conflicting ones. We tend to assume that because the other side's positions oppose ours, their interests must also be opposed. If we are interested in defending ourselves, they want to attack us. If we have an

¹ Fisher and Ury (2012) suggest in their original work in 1981 a fundamental rethinking of the general understanding of how negotiations are conceptualized. Although the book is considered unscientific, insufficiently rigorous, and lacking in analysis (White, 1984), it helps to question and, if necessary, reframe the understanding of negotiation.

interest in minimizing the rent, then their interest must be to maximize it. In many negotiations, however, a close examination of the underlying interests will reveal the existence of many more interests that are shared to our compatible than ones that are opposed. (Fisher and Ury, 2012, p. 44)

Recognizing the integrative potential and using an integrative negotiation approach have several advantages. According to Lax and Sebenius (1986), integrative negotiation leads to faster closings, a higher probability of reaching a consensus, a lower probability of one party rejecting a proposal, and a stronger bond. One aspect of recognising integrative negotiation scenarios is the identification of personal preferences (Raiffa, 1982, p. 46). Luce and Raiffa (1957, p. 4) claimed that everybody has a particular preference pattern within multiple issues, and therefore, at least in theory, all outcomes of a given situation could be specified. During a negotiation, parties are constantly asked whether they would prefer a certain package compared to another. Negotiators must decide what they ultimately want and what they are willing to give up. Thus, the approach to integrative negotiation consists of trade-offs. It is a matter of giving up something of lower value to obtain something of higher value in return. Schuster et al. (2020) summarised:

Negotiating integrative (or win-win) agreements that maximize the extent to which both parties interests are satisfied typically requires both parties to make systematic concessions. Instead of making moderate concessions on all issues (compromising), better joint outcomes are reached by making substantial concessions on some issues that are more important for the other party than oneself and trading these off against strong reciprocal concessions of the other party on issues that are more important for oneself than the other (making integrative tradeoffs). (Schuster et al, 2020, p. 1)

It is a common game to minimise the importance of what one gets and exaggerate the importance of what one gives up (Raiffa, 1982). As in the AMPO vs. City experiment conducted by Raiffa (1982, pp. 133–147), which focused on the negotiation process of a wage contract consisting of 10 negotiation issues between the administration of a fictitious municipality and a police union, it is necessary to make qualitative issues evaluable by numerical ratings. In a modified AMPO vs City experiment by Raiffa (1982), the quantitative assessment information was deleted, and qualitative comparisons of trade-offs between issues were made instead. To remain faithful to the quantitative version, an attempt was made to incorporate words that reflect the information in the deleted numbers. As a result, the qualitative version did not receive numerical summaries of the rating system. For this modified experiment, Raiffa (1982) formed four groups: (1) quantitative vs qualitative, (2) qualitative vs quantitative, (3) quantitative vs. qualitative, and (4) qualitative vs. qualitative. Raiffa (1982) found that most joint gains came from the quantitative evaluation information (1). The respective side with the quantitative information (2, 3) was more successful than the qualitative information, and the participants using the qualitative information (4) produced joint gains that were highly variable, inefficient, and far from the efficient frontier. Schuster et al. (2020) replicated this finding in a recent study. The authors ‘hypothesized that activating values [qualitative information] rather than utilities [quantitative information] as motives in a negotiation would [...] impair negotiation behaviour and outcomes’ (p. 1). This study by Schuster et al. (2020) supported the idea that ‘value-driven [quantitative information] leads to an increased aversion to trade-offs and to more compromise offers [...] and to lower individual and joint outcomes’ (p. 1). Therefore, if quantifying trade-offs is a

worthy methodology, one wonders how to quantify interest in one issue compared to another. One possibility is reducing all negotiation aspects to financial value. However, this can be very uncomfortable in several negotiations, as not all aspects are easily transferable into financial value. Raiffa (1982, pp. 149–150) suggested that an abstract scoring system, named the additive scoring model, is easier to handle. In the additive scoring model, a specific score should be assigned to each outcome level of each issue. These scores are added for each issue to generate a total score for a contract, including all issues. Raiffa (1982) argued that ‘if there are more than two issues and if the trade-offs between the levels on any two issues are preferentially independent of the remaining issues, then an additive scoring system is appropriate’ (p. 150). This thesis aims to test and compare two theories in the context of business negotiation that claim to affect negotiation performance. Based on the economic perspective, the resulting question is: What is the outcome measure in integrative negotiations?

In negotiation science, the concept of the Pareto-optimum is of fundamental significance. The basic concept is that the utility function of a trade-off should consider any change that leads to an improvement of one and simultaneously not

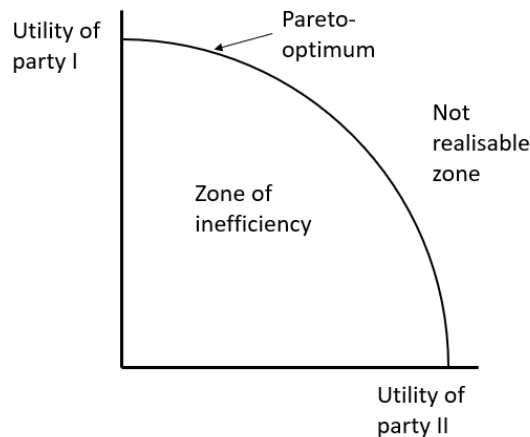


Figure 3: Illustration of the Pareto-optimum based on Neves and Nakhai (2011, pp. 87-88)

to the disadvantage of the other (Neves and Nakhai, 2011, p. 85). Therefore, when no solution improves utility without harming someone else, the solution is called 'Pareto-optimal'. Figure 2 shows the Pareto-optimum based on the utilisation rates of the respective parties. Inside (left of) the Pareto-optimal curve, the results are

inefficient, while the zone outside is not achievable at the given utilisation rates of the parties (assuming rational actors).

Although this concept is one of the foundations of conflict resolution, collective negotiation, and strategic decision science, there are some limitations regarding its application in practice and business administration. As discussed earlier, either the negotiation is built on restricted assumptions regarding the parties' preference structures (utilisation rates) or too much information disclosure is required (Neves and Nakhai, 2011, p. 87). Still, the Pareto-optimum is the basis of game-theoretic research on negotiations. Because of this, this thesis adds up the individual utilities (individual economic outcomes) to find the joint economic outcome for Party 1 (P1) and Party 2 (P2). Joint profits as an outcome variable have been included in negotiation research since the 1980s (Peterson and Lucas, 2001, p. 41). The joint economic outcome is calculated as an absolute score:

(reservation price p1 +/- final contract value p1) + (reservation price p2 +/- final contract value p2). Furthermore, research results should be calculated comparably across studies. Pareto efficiency suits this purpose (cf. Barry and Friedman, 1998, p. 357). Therefore, when no solution improves utility without harming someone else, the solution is called Pareto-optimal. Based on the Pareto efficiency score for negotiation tasks defined by Tripp and Sondak (1992, p. 291) and as used in Weingart et al. (1996), the Pareto efficiency for the joint economic outcome (PJEO) is calculated as follows:

$$PJEO = 100 * \frac{(Nw - Ns)}{(Nb - Ns) + (Nw - Ns)}$$

The variables in this formula are defined as follows: 'Nb is the number of solutions that were better than the agreed-upon solution (i.e., worth more points) for at least one party but not worse (i.e., worth fewer points) for the other party; Nw is the number of solutions that were worse than the agreed-upon solution for at least one party; and Ns is the number of solutions with the same individual outcome levels as the agreed-upon solution' (p. 1209). However, the Pareto efficiency of the joint economic outcome must not be the single measure when determining negotiation outcomes in integrative negotiations. Although the integrative negotiation approach presents itself as a win-win negotiation where each party benefits, it is always only one aspect of negotiation. After all, even if the parties bring further interests (issues) into the negotiation and recognise individual preference patterns, the overall package must eventually be divided between the parties (Lax and Sebenius, 2002, p. 6). Raiffa (1982, p. 144) also noted that integrative negotiation eventually leads to distributive bargaining; although the pie has been enlarged, it is then distributed by and to the parties. White (1984)

argued that ‘eventually [...] one comes to bargaining by which added benefits to one impose corresponding significant costs on the other’ (p. 116). The advantage of integrative negotiation is that everyone may receive a more significant piece of the pie than if the original part had been divided. Brett et al. (1998) also argued that ‘joint gains mean more value for parties to distribute; they may also make an agreement possible where simple compromise would be unacceptable to either party’ (p. 82). Therefore, the results of integrative negotiations are assessed in terms of the Pareto efficiency of the joint economic outcome and the respective Pareto efficiency of the individual economic outcome of both parties (see Sharma, Bottom, and Elfenbein, 2013, p. 293; Lax and Sebenius, 2002; Lax and Sebenius, 1986). For the Pareto efficiency of the individual economic outcome (PIEO), a similar calculation is used as for PJEO. Based on Tripp and Sondak (1992, p. 291) and adapted from Weingart et al. (1996), the PIEO is calculated as follows:

$$PIEO = 100 * \frac{(Nw - Ns)}{(Nb - Ns) + (Nw - Ns)}$$

The variables used in this formula are defined as follows: Nb is the number of solutions that were worth more points for the party under consideration than the agreed-upon solution; Nw is the number of solutions that were worth fewer points for the party under consideration; and Ns is the number of solutions with the same individual outcome levels as the agreed-upon solution. For example, a perfectly distributive solution receives a Pareto efficiency score of 100%, while an impasse solution receives a value of 0%. In summary, this section has shown that in integrative negotiation, both the Pareto efficiency of the individual economic outcomes and the Pareto efficiency of the joint economic outcomes are essential as negotiation outcome indicators. These outcomes are made mathematically

computable and comparable across issues in an additive scoring model, where the number of possibilities is calculated in game-theoretic terms to calculate the Pareto efficiencies of the negotiation outcomes. The subsequent section introduces the second underlying discipline regarding the psychological perspective of negotiation research.

2.1.2 Psychological Perspectives of Business Negotiation Research

The literature review for this section was conducted using the Sheffield Hallam University Online Library as well as the Bayerische Staatsbibliothek in Munich and included the following search terms: "psychology," "behaviour," "traits," "character," "mindset," "information," "dilemma," and "preferences". All keywords were paired with "negotiation" and "bargaining". The literature references of the usable articles were examined in a further step for additional articles. The analysis criteria defined were the coverage range, the applications to integrative business negotiations, and the application to the history of negotiation research. Subsequently, the appropriate publications were selected to compile this literature review. The publications presented in Appendix 2 are considered the most relevant. Peleckis (2016) mentioned that 'negotiation is based not only on rationality but also on other factors, such as emotions, moral understanding, avoidance of uncertainty, time orientation awareness (long or short), and others'. (p. 110). Bazerman et al. (2000) further argued:

The main reason the behavioural decision perspective dominated negotiation research in the 1980s and 1990s is that this perspective made it explicitly clear what was needed to improve negotiation behaviours – the debiasing of the negotiator's mind. (Bazerman et al., 2000, p. 303)

Meanwhile, Schelling (1960) suggested that the 'mathematical structure should not be permitted to dominate the methodological study of bargaining games' (p. 236). This suggestion extends the concept of Von Neumann and Morgenstern (1944, p. 4), who proposed mathematics and natural science approaches as the dominant methodologies for analysing negotiations. Schelling's (1960) suggestion has been taken up in academia (Agnadal, 2017, p. 494). For instance, Neves and Nakhai (2011) noted that while game theory has laid the foundations for purely rational negotiation, 'a rich and varied research tradition led by psychologists and economists has provided many behavioural findings about the actual negotiation process' (p. 87). Much of the psychological research on negotiation follows the assumption that negotiation behaviour is driven by psychological states with a motivational, cognitive, or affective basis (Barry and Oliver, 1996; Weingart et al., 1993; Carnevale and Pruitt, 1992; Thompson, 1990). Moreover, negotiation behaviour is a direct product of the behavioural context; one negotiator's behaviour directly reacts to another (Smith, Pruitt, and Carnevale, 1982; Kelley and Stahelski, 1970). Therefore, this section includes both psychological and behavioural elements of business negotiations, as both elements are closely intertwined. One widely considered question in the psychological perspective of negotiation research is, 'Why do many negotiators fail to recognise the integrative potential of negotiation and settle for a reduced outcome instead?' (Lax and Sebenius, 1986; Fisher and Ury, 1981; Pruitt, 1981). Although there is an interdisciplinary consensus that integrative negotiations lead to (1) faster closings, (2) a higher probability of reaching a consensus, (3) a lower probability of one party rejecting a proposal, and (4) a stronger bond between the

parties (Lax and Sebenius, 1986), little is known about why some negotiators tend to be better at integrative negotiations than others.

Negotiators (Ade et al., 2020, p. 740). Barthelmess et al. (2018) rephrased the findings of Lewicki et al. (2015) and Pinkley et al. (1995):

Whether or not both parties achieve their stated goals depends on the free flow of information and an empathic willingness to understand each other's real needs and objectives. (Pinkley et al., 1995, p. 22)

Like Barthelmess et al. (2018), Lewicki et al. (2015), and Pinkley et al. (1995), most authors note that the reason for negotiators being more successful integrative negotiators could primarily be one of the following (partly interdependent) two factors: (1) individual character traits (Ade et al., 2018; Sharma, Bottom, and Elfenbein, 2013; De Dreu, Weingart, and Kwon, 2000; Pinkley et al., 1995; Lax and Sebenius, 1986) and (2) the quantity and quality of information available (Schuster et al., 2020; Gettinger, Koeszegi, and Schoop, 2012; Pinkley et al., 1995; Bazerman and Neale, 1992; Roth, 1985; Roth and Malouf, 1979).

The first obstacle to be discussed is individual character traits. Lax and Sebenius (1986) described the conflict between creating and claiming value as 'the negotiator's dilemma':

Creating value [integrative negotiation] requires openness, communication, learning, ingenuity, joint problem-solving, and preventing conflict escalation. Claiming value [distributive bargaining] involves advantageously shaping opponents' perceptions of the bargaining range, often by manipulating alternatives and aspirations, making commitments, holding prime values hostage, misleading, and exploiting cultural expectations. (Lax and Sebenius, 1986, p. 154)

Research conducted by De Dreu, Weingart, and Kwon (2000, p. 889) found that individual character traits influence or prevent an integrative negotiation approach. The results from the meta-analysis of 28 studies indicate that resistance to yielding (low vs high) and preconditions in social motives (egoistic vs prosocial) influence or prevent an integrative negotiation approach (De Dreu, Weingart and Kwon, 2000, p. 889). Other research conducted by Barry and Friedman (1998) concerning the five-factor model of personality and its relevance in negotiation found that 'extraversion and agreeableness are liabilities in distributive bargaining encounters' and 'cognitive ability played no role in distributive bargaining but was markedly related to the attainment of joint outcomes in a situation with integrative potential' (p. 345). Sharma et al. (2013) also supported the arguments of Lax and Sebenius (1986) and Barry and Friedman (1998) and the findings of De Dreu, Weingart, and Kwon (2000) by claiming that negotiators' individual differences are directly related to negotiation outcomes. A meta-analysis by Sharma et al. (2013) found that 'cognitive ability, emotional intelligence, and numerous personality traits demonstrate validity over multiple outcome measures' (p. 293). For example, higher levels of cooperation lead negotiators to share more information on integrative issues and achieve better results than individualistically oriented negotiators (O'Connor, 1997). A similar hypothesis was noted by Ade et al. (2018), who noted that the negotiator's mindset might be one potential answer to why some negotiators tend to achieve better results in integrative negotiations. According to Ade et al. (2018), mindsets are 'psychological orientations by which people approach negotiations' (p. 1). In their paper, Ade et al. (2018) echoed the findings of Sharma et al. (2013) that the

mindset dimension will likely significantly impact the negotiation outcome. More concretely, the development of the mindset could improve the effectiveness of knowledge and skills, increase the transfer of learning, lead to long-term changes in behaviour, and enable negotiators to make more sustainable, integrative settlements (Ade et al., 2018).

The second obstacle to be discussed is the amount and quality of information available. Information is of particular importance in negotiations, both theoretically and practically (Agnadal, 2017, p. 494; Gettinger et al., 2012, p. 161; Bazerman and Neale, 1992, p. 69). Bazerman and Neale (1992) claimed that 'adequate and accurate information is vital to negotiating well' (p. 70)—this is relevant for all parties to a negotiation. Guo (2022) described that 'for instance, buyers may not know their value perfectly, and sellers may not be fully aware of their cost structure' (p. 1). Thus, Guo pointed to the condition that not only the counterpart's information can be unknown, but also information the counterpart assumes should be known to oneself. Given that the outcome of a negotiation is based on the strategic interaction of the parties, it has always posed challenges for economists. This perception results in the idea that 'the type of negotiation process can be seen as a negotiation outcome' (Agnadal et al., 2017, p. 494). Peterson and Lucas (2001) also noted that 'process behaviours are generally viewed as the central determinant of the negotiated outcomes' (p. 41). Meanwhile, Roth (1985) mentioned that theories of negotiation could not 'do more than specify a range in which an agreement may be found; to attempt to accomplish more would be to introduce arbitrary specificity' (p. 1). The only way to limit or perhaps eliminate the area of indeterminacy is to ensure that sufficient

information is available about the characteristics of the negotiating partners and the detailed structure of the negotiation problem (Roth, 1985, p. 1).

Roth and Malouf (1979, p. 576) argued that Nash's (1950) game-theoretic negotiation model is a good predictor of behaviour, assuming that all the necessary information is available to the negotiators. Nash's (1950) model has been investigated in several experimental studies with the provision of complete information (Rapoport, Frenkel, and Perner, 1977; Rapoport, Guyer, and Gordon, 1976; Nydegger and Owen, 1975; Rapoport and Perner, 1974). One of the relevant conclusions of these experimental studies is that the negotiation outcome is influenced by several salient outcomes involving interpersonal comparisons (Roth and Malouf, 1979, p. 581). Although the Nash (1950) solution is helpful as a predictor of which party receives the larger pay-out, there is a strong tendency for negotiation outcomes to be closer to an equal split than would be forecast by the Nash solution (Roth and Malouf, 1979, p. 581). However, the availability of information appropriate to the parties involved in the case in relatively few negotiation situations (Bazerman and Neale, 1992, pp. 70–21). Curhan et al. (2009) summarised the lack of information using a real-life example:

Evaluating the economic outcome of buying a used car would require complete information about the dealer's interests and alternatives, the deals reached by others making similar purchases, and even the car's true value – including information about quality and reliability that may be unknowable at the time. (Curhan et al. 2009, p. 525)

Moreover, it might be expected that negotiators intuitively understand the relevance of information and actively drive the distribution of information. However, in a meta-analysis by Thompson and Hrebec (1996), it was found that

Remarkably few people provided our sought information about the other party's interest during negotiations (about 20% and 7%, respectively), even though they had ample opportunity and there were no apparent costs of information exchange. (Thompson and Hrebec, 1996, p. 405)

Accordingly, some models consider negotiations incomplete. 'These models are concerned with situations wherein each party has private information (e.g., about preferences) that is unavailable to the other side' (Roth, 1985, p. 11). Roth and Malouf (1979, p. 581) found that the quality of information shared by negotiating partners impacts the outcome of negotiations. First, Roth and Malouf (1979, p. 591) demonstrated that the quantity and quality of information are the key predictors of whether outcomes fall into a Nash equilibrium or an equal distribution between the parties. Second, Roth and Malouf (1979, p. 591) showed that in many negotiation situations where the negotiating parties do not have full knowledge of each other's preferences, the parties could likely form an estimate of each other's preference structures. Finally, Roth and Malouf (1979, p. 591) demonstrated that negotiators who share the most information create the most significant scope for individual negotiation ability. Thus, the question arises as to why all the information is not freely provided by the negotiating parties to create the most significant scope for individual negotiation ability. Schelling (1980) argued:

Bargaining parties do not usually know the preferences of their counterparts, and even when a dominant alternative is revealed through the [negotiation] process, parties often use this information strategically to obtain a concession from the counterpart. (Schelling, 1980, p. 41)

This argument is also echoed by Raiffa (1982), who argued that strategic misrepresentations might lead to inefficient problem-solving. Raiffa (1982)

claimed that 'if both sides strategically misrepresent their value trade-offs, then inefficient contracts will often result' (p. 144). Meanwhile, Bazerman et al. (1999) argued:

In the context of multi-issue negotiations that characterize many real-world conflicts, it is not difficult to understand how the parties could fail to correctly identify each other's preferences. (Bazerman et al, 1999, p. 1283)

Having derived that there are two possible factors behind why some negotiators tend to be better at integrative negotiations than others (individual character traits and the quantity and quality of information available), negotiation research defined a term describing this obstacle: The fixed-pie assumption 'grows from the assumption that disputants' interests are perfectly opposed' (Bazerman and Neale, 1999, p. 1277). Bazerman et al. (1985, pp. 309–310) argued that negotiations often start with this assumption. The fixed-pie assumption is a false belief 'where a negotiator assumes (without testing) that the goals of both parties are mutually exclusive' (Lewicki and Tomlinson, 2014, p. 803). This "win-lose" perspective is due to a fundamental bias (Bazerman and Neale, 1992, p. 69). In asking the question, 'Where does the fixed-pie assumption come from?' Bazerman et al. (1999) suggested that 'it is created by the tendency of people to overgeneralize purely competitive situations to mixed-motive situations' (p. 1284).

Bazerman et al. (1999) further specified the two types of potential gains that are reduced by the fixed-pie assumption: compatibility gains and log-rolling gains. Compatibility gains result when a negotiator perceives that their preferred outcome on a particular issue contrasts with their opponent's preferred outcome

on that issue. Errors in priority judgments occur when the negotiator mistakenly believes that the issues they consider most important are the same as those the other party considers essential. Bazerman et al. (1999) concluded that fixed-pie perception includes inter- and intra-issue errors. Therefore, accurately identifying an opponent's preference structure requires judgments across and within issues (Bazerman et al. 1999, p. 1282). This idea was also supported by Pinkley et al. (1995) since, regardless of the cause of the fixed-pie perception, a 'poor understanding of the opponent's preferences' (p. 102) results, which then leads to suboptimal negotiation outcomes. In an experimental study, Pinkley et al. (1995) found that 'negotiators provided with full information negotiated significantly higher joint outcomes than did negotiators who provided no information' (p. 110). This is what Bazerman et al. (1985) had already anticipated: that it is only with the development of situations wherein negotiators acquire additional information that they can overcome this fundamental bias and transform a distributive negotiation into an integrative negotiation. Therefore, obtaining data of high quality and quantity is of particular importance for negotiators. Schuster et al. (2020) summarised that 'information exchange can, for instance, decrease fixed-pie assumptions, help uncover trade-off opportunities, and thus foster integrative agreements' (p. 3). This relationship between negotiation behaviour of aiming for high-quality and quantitatively complete data and negotiation outcome, especially integrative negotiation behaviour and integrative outcome, has been examined by Weingart et al. (1996). The behaviours of (a) making multi-issue offers, (b) providing information about priorities across issues, (c) asking questions about priorities, (d) suggesting packaging, and (e) suggesting delayed reciprocity are positively correlated with

negotiation outcomes (Weingart et al., 1996, p. 1214). Therefore, empirical results show that integrative behaviour improves integrative negotiation outcomes. This process of gathering high-quality and quantitatively complete data represents a behavioural approach to optimising integrative negotiation outcomes. In this thesis, the five behavioural recommendations by Weingart et al. (1996) are considered behavioural objectives to influence the negotiation's individual and joint economic outcomes.

The subsequent section introduces the third underlying discipline regarding the sociological perspectives of business negotiations grounded in perceptions of the negotiation situation, perceptions of the other party, and the perception of oneself.

2.1.3 Sociological Perspectives of Business Negotiation Research

The literature review for this section was conducted using the Sheffield Hallam University Online Library as well as the Bayerische Staatsbibliothek in Munich. It included the following search terms: "sociology," "theory of cooperation and competition," "dual concern theory," and "subjective value inventory". All keywords were paired with "negotiation" and "bargaining". The literature references of the usable articles were examined in a further step for additional articles. The analysis criteria defined were the coverage range, the applications to integrative business negotiations, and the application to the history of negotiation research. Subsequently, the appropriate publications were selected

to compile this literature review. The publications presented in Appendix 3 are the most relevant.

Traditional economic negotiation theories predict that disputing parties act irrespective of their social motives (De Dreu, Weingart, and Kwon, 2000, p. 890). However, the theory of cooperation and competition (Deutsch, 2014) and the dual concern theory (DCT; Pruitt and Rubin, 1986) see social motives as the key to effective integrative negotiation. This section first introduces the theory of cooperation and the DCT to highlight the relevance of social motives and resulting behaviours within integrative negotiations. Subsequently, a framework to measure subjective value (Subjective Value Inventory [SVI] by Curhan et al., 2006) is introduced to complete the comprehensive definition of business negotiation outcome for this thesis.

Coleman, Deutsch, and Marcus (2014) acknowledged game theory (especially the work of Von Neumann and Morgenstern, 1944) as an important contribution to the work of social scientists, as it formulated the problem of conflict of interest in mathematical terms. Coleman, Deutsch, and Marcus (2014) also praised the fact that, although the development of game theory has been most successful in the context of pure competitive conflicts (zero-sum games), game theory recognises that both cooperative and competitive interests can be intertwined in conflicts (cf. Nash, 1950). However, Coleman, Deutsch, and Marcus (2014) also highlighted the limitations of game theory and argued:

It is neither the mathematics nor the normative prescriptions for minimizing losses when facing an intelligent adversary that has made the game theory of considerable value to social psychologists. Instead, it is the core emphasis of the conflicting parties having interdependent interests; their fates are woven together. (Coleman, Deutsch and Marcus, 2014, p. xxxiii)

Based on Schelling's (1960) work and the concept of the "mixed-motive nature of conflict", Coleman, Deutsch, and Marcus (2014) concluded that conflicts typically consist of cooperative and competitive elements and that these elements influence the course of the conflict. Coleman, Deutsch, and Marcus (2014, p. 4) identified two dichotomous types of goal interdependence: positive and negative. In positive interdependence, the goals are linked so that the probability of one person achieving the goal is positively correlated with the probability of the other person achieving the goal. In a negative dependency of the goals, the probability of goal achievement of one person is negatively correlated with the probability of goal achievement of the other person. Competition leads people to pursue individual goals and be convinced they are incompatible with the other party's goals. This perception leads people to believe that a concession to the other person is simultaneously an inevitable loss for their result. Tjosvold and De Dreu (1979) argued accordingly:

In competition, protagonists believe one person will win, and the other will lose. As they discuss their positions, they suspect each other of misleading and withholding information and may belittle and attack the other's position. (Tjosvold and De Dreu, 1979, p. 2215)

According to Tjosvold and De Dreu (1997), competitive conflicts often lead to failure to reach an agreement. However, Deutsch (2014) stated that competition per se is not counterproductive and even creates advantages in some situations. Competitive behaviour is part of everyday life, and the ability to assert oneself in a competition often shows who is best qualified for which activity. For example, he mentioned the relative performance of students or a democratic system.

Furthermore, Deutsch (2014) argued that playful competition within a cooperative could contribute to a resolution. On the other hand, the idea of cooperation leads people to believe that conflicts are mutual problems that can be solved through the cooperation of both parties. Deutsch (2014, p. 5) argued that goal interdependence has multiple reasons. For example, people may like each other, remuneration may depend on the common outcome, there may be a potential dependence on the division of labour, or parties may have a common enemy. People willing to cooperate tend to discuss opposing ideas, explain their positions, and work together to find a mutually acceptable solution (Tjosvold and McNeely, 1988; Tjosvold and Field, 1984). According to Tjosvold (1989) and Tjosvold and Johnson (1989), the cooperative dynamic produces more efficient and higher-quality problem-solving (cf. also Lax and Sebenius, 1986). Since integrative negotiations consist of several issues to be negotiated, negotiators should know that there may be competing and cooperative issues.

Alongside competition and cooperation, the DCT uses "self-concern" and "other-concern". According to Thomas (1992), Pruitt and Carnevale (1993), and Pruitt and Rubin (1986), concerns for one's outcomes and those of others are not opposite ends of the same dimension; in fact, they are independent dimensions. Sorenson et al. (1999) mentioned that 'most people training employees, writing textbooks, and conducting research have conceptualised these two concerns and the resulting conflict-handling strategies in similar ways' (p. 25). Based on the works of Blake and Mouton (1964), the DCT 'predicts behavioural approaches from an analysis of negotiators' motives' (Rhoades and Carnevale, 1999, p. 1777). This original work by Blake and Mouton underwent several developments (cf. Pruitt and Rubin, 1986; Rahim, 1983; Pruitt, 1983; Thomas and Kilmann,

1974; Hall, 1969). A compilation of these four 2-dimensional models with associated conflict styles is illustrated in Figure 3.

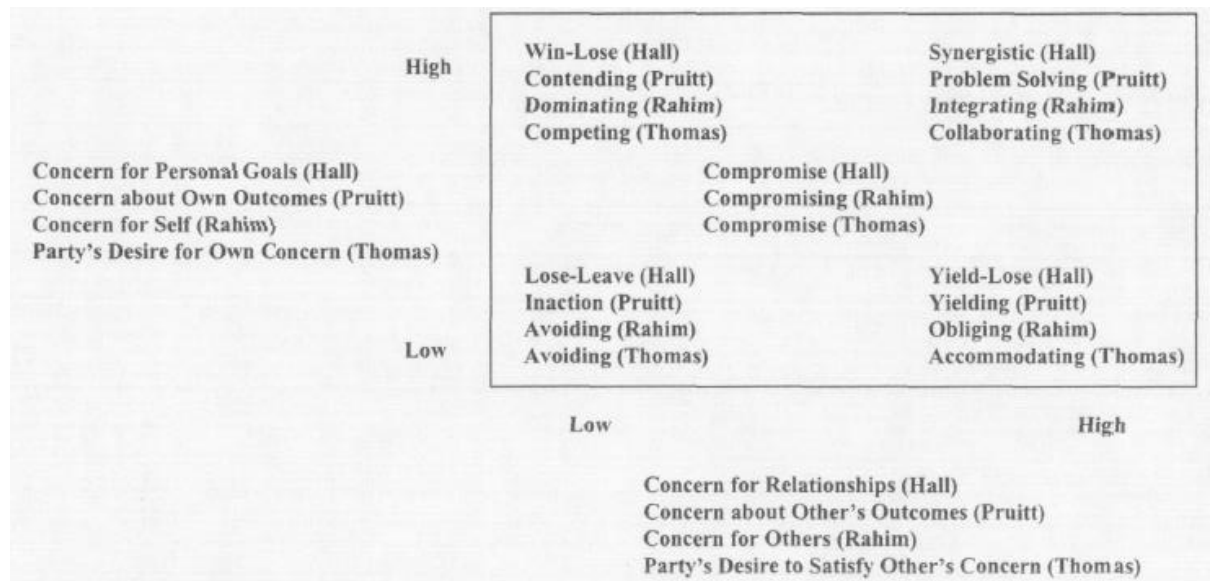


Figure 4: Composite of conflict styles (Sorenson et al., 1999, p. 27)

Several works (cf. Thomas and Kilmann, 1974; Rahim, 1983; Hall, 1969) added a fifth dimension (compromise). Dreu, Weingart, and Kwon (2000, p. 891) summarised that 'a key assumption in Dual Concern Theory is that social motives and resistance to yielding are independent, orthogonal dimensions and that factors that influence resistance to yielding do not necessarily affect social motives and vice versa' (cf. also Van de Vliert, 1997; Thomas, 1992; Pruitt and Rubin, 1986; Blake and Mouton, 1964). At the core of this model is the motivational orientation of negotiators: concern for one's outcomes and the outcomes of the party being negotiated with. Individual and situational factors influence this motivational orientation. The combination of the motivational orientations of the negotiating parties is a predictor of the strategies that the parties will choose. The model consists of four negotiation strategies: contending,

concession-making, problem-solving, and inaction (Rhoades and Carnevale, 1999, p. 1778), which are explained below.

- (1) Contending: If a negotiating party has great concern for its outcomes and little concern for the other's outcomes, then the negotiating party will choose the contending strategy. Contending aims to reach an agreement on one's conditions. Tactics such as positional commitments and threats are used.
- (2) Concession: If a negotiating party has little concern for its outcomes and great concern for the other's outcomes, then the negotiating party will choose the concession strategy. This strategy aims to reach an agreement on the other's conditions. One's benefit is reduced. This strategy is also called 'yielding'.
- (3) Problem-solving: If a negotiating party has great concern for its outcomes and great concern for the other's outcomes, then the negotiating party will choose the problem-solving strategy. In problem-solving, information is exchanged, and interests are integrated by the negotiating parties to reach a mutually acceptable agreement.
- (4) Inaction: If a negotiating party has little concern for its outcomes and little concern for the other's outcomes, the strategy of inaction is predicted. Inaction involves doing as little as possible (or nothing).

The DCT was supported in several experimental studies in which the concern for one's and another's outcomes were manipulated (Ben-Yoav and Pruitt, 1984 a; 1984 b; Pruitt et al., 1983; Pruitt and Lewis, 1975). Compared to Deutsch's (2014) cooperation and competition theory, cooperation is only possible if there is, in addition to great concern for one's outcomes, great concern for the other's outcomes. Depending on the concern for one's own outcomes, there are two possibilities: either one's concerns are considered less important, in which case the strategy of concession results, or if, in addition to great concern for the other's outcomes, a negotiator also has great concern for their own outcome, then 'negotiators are likely to do their most creative thinking about the issues under circumstances that force them to link their interests with the other parties' interests' (cf. Rhoades and Carnevale, 1999, p. 1779). Rhoades and Carnevale (1999) tested the consistency of the DCT based on the correlations between the motivational orientations of both negotiating parties. They questioned what happens, for example, when one party has a contending orientation and the other party has a problem-solving orientation. The DCT predictions were supported when the negotiating parties' motivational orientations matched. However, this study found that when motivational orientations are unequal, the opponent's behaviour or strategy has a "profound effect" on one's own strategy (Rhoades and Carnevale, 1999, p. 1794). However, the most independent strategy is problem-solving. The study found that problem-solving strongly depended on the opponent's motivational orientation. This finding is consistent with other studies (Van de Vliert, 1997; Sorenson et al., 1999). For instance, Rhoades and Carnevale (1999) noted that 'problem-solving behaviour elicited problem-solving responses' (p. 1794). Furthermore, Sharma et al. (2013) summarised, 'Taken

together, effectiveness in integrative negotiation is enhanced by high aspirations and an underlying concern for the interests of both parties' (p. 297).

Having shown that from a sociological perspective, concern for one's own outcomes and others' outcomes are prerequisites for integrative negotiations and that 'problem-solving behaviour elicited problem-solving responses' (Rhoades and Carnevale, 1999, p. 1794), the feelings of the counterpart regarding the outcome, the self, the process, and the relationship are also essential for the negotiation outcomes (Curhan et al., 2006, p. 494). Bierhoff (1988) noted that 'a theory of interpersonal behaviour is incomplete without the inclusion of the feeling states of the actors' (p. 167). Lewis et al. (2018) noted:

Although negotiation researchers typically focus on economic outcomes, they have also increasingly explored the role of such social outcomes as negotiators' reputations. (Lewis et al., 2018, p. 381)

The need to include social outcomes in the sum of negotiation outcomes is highlighted in a nuanced way by Olekalns and Smith (2018), who mentioned that 'social, or reputational outcomes increase in importance as individuals move from single transactions such as buying a car to recurrent negotiations such as employment contracts' (p. 180). However, Lewicki and Tomlinson (2014) noted that negotiating parties would have difficulty determining the quality of negotiations. They argued as follows:

The parties may never know how much [...] value was created and how much value was left on the table as a result of incomplete implementation. (Lewicki and Tomlinson, 2014, p. 812)

Mestdagh and Buelens (2003) found that in negotiation studies, the use of attitudinal and perceptual measures as dependent variables has increased slightly since the 1960s. This finding was supported again in a meta-analysis by

Agnadal et al. (2017, p. 494), as more recent studies attempt to map the area of subjective value in negotiations, which is also part of the negotiation outcome. Subjective social-psychological negotiation outcomes are significant, as negotiators usually receive little feedback from their counterparts. Lax and Sebenius (2002) argued:

The concept of value in negotiation depends on the complete set of the parties' interests, and these interests may be noneconomic as thriving economic, intangible as well as tangible, altruistic as well as selfish, and group as well as individual. (Lax and Sebenius, 2002, p. 6)

Curhan et al. (2006) also addressed the non-economic outcomes of negotiations. They mentioned as follows:

At some level, subjective feelings of success are often the only feedback a negotiator has for his or her performance, given that outside of a classroom exercise, one might know the exact dollar value of a deal but rarely the dollar value of the best possible deal that the other side would have accepted or, indeed, the dollar value of deals that would have been achieved by peers in an identical situation. (Curhan et al., 2006, p. 494)

Thompson (1990) differentiated between three categories as additional (subjective) outcomes to economic values. First, the perceptions of the bargaining situation integrate feelings and judgments about the negotiation process, such as fairness, norms, and communication. The second category deals with the perception of the other party and relationships. For the third category, Thompson (1990) mentioned inwardly directed self-perceptions, such as self-enhancement, self-efficacy, self-esteem, and face maintenance. Curhan et al. (2006, p. 494) extended the framework introduced by Thompson (1990) by splitting the first category, perceptions of the bargaining situation, into feelings

about the instrumental outcome and the self. The other categories, feelings about the process and the relationship, remain the same.

Within a study designed to answer the question 'What do people value when they negotiate?' the following 16-item Subjective Value Inventory (SVI) introduced by Curhan et al. (2006, p. 501) describes a comprehensive framework of social psychological outcomes to measure subjective value in negotiations. The questionnaire presented in Appendix 12 measures the SVI in negotiations within four subscales: feelings about the instrumental outcome, feelings about the self, feelings about the negotiation process, and feelings about the relationship. Curhan et al. (2010) summarised the subscales of the SVI: Feelings about the instrumental outcome reflect 'the subjective perception that the economic outcome is beneficial, balanced, and consistent with principles of legitimacy and precedent' (p. 691). Feelings about the self 'comprise losing face versus feeling competent and satisfied that one has behaved appropriately' (p. 691). Feelings about the process 'include the perception that one has been heard and treated justly, and the process was efficient' (p. 691). Feelings about the relationship 'involve positive impressions, trust, and a solid foundation for working together in the future' (p. 691). The combination of feelings about the process and the relationship 'forms a broader construct of rapport' (p. 691).

The predictive validity results are particularly noteworthy, 'demonstrating that greater subjective value inventory following a negotiation predicts greater subsequent willingness to engage in cooperative interactions with the same negotiation counterpart' (Curhan et al., 2006, p. 506). Additionally, Curhan et al. (2006, p. 506) found that negotiators with higher SVI scores were more willing to

work with their respective negotiating partners in a team. For future research, Curhan et al. (2006) suggested the inclusion of subjective value as an outcome measure, which creates the opportunity to 'observe the consequences of particular experimental manipulations on subjective experience' (p. 508). This opinion that subjective outcomes are justified as negotiation outcomes are supported by a meta-analysis by Agnadal et al. (2017). This analysis descriptively found that business negotiation research increasingly incorporates subjective outcomes. Prescriptively, Agnadal et al. (2017) concluded that 'new methodological approaches can contribute to the issue of how to measure negotiation performance' (p. 495).

The SVI has been used in several studies as a supplement to the economic values of a negotiation. Schuster et al. (2020) investigated the effects of activating different motives on negotiation behaviour, joint outcomes, and subjective evaluations of the negotiation. In both studies, participants with a strong value motive evaluated the outcome and the process subjectively more negatively. Becker and Curhan (2018) found in a multi-round laboratory study and in a longitudinal field study that the 'subjective value from an initial negotiation and the objective outcome from a subsequent negotiation with a different counterpart' (p. 74) are negatively correlated. Becker and Curhan (2018) argued that 'these results are consistent with the explanation that positive subjective value leads to a kind of overconfidence or hubris, which, in turn, hinders performance in a second negotiation with a different counterpart'. Lu et al. (2018) also applied a multi-round study to investigate whether there is a relationship between the SVI in the first round and negotiation behaviours defined in the dual concern theory in the next round. Lu et al. (2018) reported positive correlations between the SVI

subscales of relationship and all five negotiation styles, positive correlations between the SVI sub-process of process and integrating, and negative correlations between the SVI sub-process of instrumental outcome to avoiding and dominating. Olekalns and Smith (2018) found 'informative parallels between the satisfaction ratings [SVI] of participants who were cooperatively oriented or received feedback about an opponent's satisfaction with outcomes and between those who were individualistically oriented or received outcome-only feedback' (p. 179). Lewis et al. (2018) included the SVI in a series of laboratory experiments and found that 'compared to negotiators who did not encounter adversity, those negotiators who did encounter challenges and engaged in benefit finding reported higher levels of process and relationship satisfaction' (p. 379). Curhan et al. (2010) found that negotiators achieve higher economic value in subsequent negotiations and are more likely to negotiate with the same person in the future if they conclude a negotiation with high subjective value. Curhan et al. (2009) used a real-life longitudinal field study to examine how the subjective and economic value of negotiating job offers predicts workers' subsequent attitudes and intentions to change jobs. The authors found that the subjective value predicted greater satisfaction regarding compensation and job satisfaction as well as a lower turnover intention after one year of the first measurement.

Thus, the SVI supplements the economic values of a negotiation. The SVI incorporates socio-psychological and subjective factors into the study of negotiation outcomes. The rationalist assumption, which portrays negotiations as a purely economically motivated interaction that unemotional, rational actors should execute, is challenged by the SVI and supplemented by this dimension. The SVI should be considered in recurrent negotiations and negotiations within

an existing or emerging relationship, such as that of an employee with an employer.

Therefore, the results of the integrative negotiations are also assessed with the negotiating partner's SVI to include the negotiation's sociological perspective. Now that the three different perspectives of negotiation (economic, psychological, and sociological) have been discussed, the following section synthesises these perspectives to form a comprehensive framework for measuring integrative negotiation performance.

2.1.4 Synthesis of the Perspectives of Business Negotiation Research

So far, this chapter has considered three underlying perspectives of negotiations: (1) 'Economic Perspective of Business Negotiations', including game-theoretical approaches of distributive bargaining and integrative negotiation; (2) 'Psychological Perspective of Business Negotiations', including two factors of individual character traits and integrative negotiation behaviours to obtain high-quality and quantitatively complete data; and (3) 'Sociological Perspective of Business Negotiations', including the theory of cooperation and competition, the DCT, and the SVI as a supplement to the economic and behavioural outcomes of a negotiation. For each perspective, individual indicators of business negotiation performance were derived.

This section synthesises and cumulates these individual indicators of negotiation performance into a comprehensive definition for this thesis. Sharma et al. (2018) claimed:

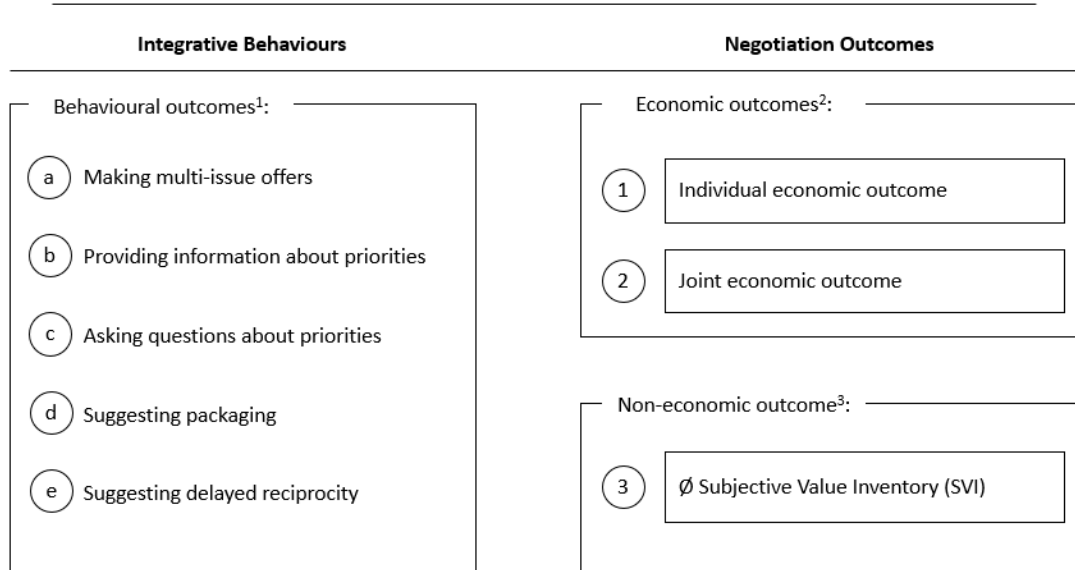
Negotiation effectiveness is an inherently multidimensional construct, and the field needs a multifactor model of negotiation performance that can

examine the effectiveness of an individual across these different negotiation processes. (Sharma et al., 2018, p. 158)

Based on synthesising the economic and sociological perspectives of negotiation research and individual indicators to determine negotiation performance, success in integrative negotiations can be defined by the criteria of individual economic outcome, joint economic outcome, and the SVI (cf. Sharma, Bottom and Elfenbein, 2013, p. 293). This definition of negotiation success in integrative negotiations has been equally used by Schuster et al. (2020) and suggested by McGuire et al. (2022, p. 312). Moreover, by adding the behavioural process of gathering high-quality and quantitatively complete data by (a) making multi-issue offers, (b) providing information about priorities across issues, (c) asking questions about priorities, (d) suggesting packaging, and (e) suggesting delayed reciprocity (Weingart et al., 1996, p. 1214), a framework for integrative negotiation performance can be derived for this thesis.

This framework for integrative negotiation performance is illustrated in Figure 4.

Integrative Negotiation Performance Indicators



- 1 | Behavioural outcomes measures by presence / absence of behaviours
- 2 | Economic outcomes measured by an additive scoring model
- 3 | Non-economic outcome measured by SVI of the counterpart as arithmetic mean on a 7-point Likert scale

Figure 5: Applied framework for negotiation performance (devised by the author)

To test and compare two theories in the negotiation context and investigate which theory best predicts negotiation performance, the framework presented above is used as the definition of business negotiation performance for this thesis. This framework consists of behavioural strategies described by Weingart et al. (1996) to obtain and provide high-quality and quantitatively complete data and the dependent variables of integrative negotiation performance indicators. These indicators consist of individual economic outcome and joint economic outcome, each measured by an additive scoring model, and the SVI of the counterpart, measured by the arithmetic mean of the 16-item questionnaire by Curhan et al. (2006, p. 501) on a seven-point Likert scale.

These derived definitions are consistent with Agnadal et al.'s (2017, p. 494) meta-analysis, which distinguishes five main categories of negotiation outcomes. The

first category includes objective outcomes in economic or mathematical terms, which are typical when a relationship between the behaviour or characteristics of the negotiating parties and the proportion of the negotiating zone gained is to be investigated. The second form of outcome measurement is whether or not the negotiation ends in an agreement. The third outcome measurement consists of the subjective outcome defined in the Subjective Value Inventory (SVI) by Curhan et al. (2006, p. 501). The fourth category consists of negotiation efficiency (i.e., the number of iterations or the duration of negotiations), which serves as an outcome measure. The final category comprises whether negotiation is distributive or integrative. This study includes four available outcome measures to define negotiation performance. Only negotiation efficiency is included as a negotiation outcome.

According to a study by De Dreu (2003), it could be argued that negotiators with high time pressure reach less integrative agreements because they revise their ideas about fixed assumptions less often during the negotiation (De Dreu, 2003, p. 280). In addition, Stuhlmacher et al. (2000) found in an empirical study that participants pressed for time made fewer offers on average. However, in a meta-analysis, Stuhlmacher and Champagne (1998) posited that time pressure increased the probability of cooperative behaviour and concessions, and Saorn-Iborra (2007) found that time pressure is not always related to competitive negotiating behaviour. A concern for the post-negotiation atmosphere (a basis for value creation), experience, and preparation are all moderating factors (Saorn-Iborra, 2007, p. 285). Therefore, the inconsistency of time as a measure of integrative negotiation performance justifies the exclusion of efficiency as a negotiation outcome. On the one hand, time is a scarce, protectable, and non-

recoverable resource for all negotiating parties. Therefore, it would be advisable to make a negotiation effective and efficient. On the other hand, it can be argued that the negotiating parties consciously invest time in building a relationship with each other (e.g., in making small talk or providing the counterpart with the opportunity to brainstorm), which is of high relevance to integrative negotiations (Barthelmess et al. 2018, pp. 25–26). Furthermore, and this is probably the most crucial argument for excluding efficiency as a quality criterion of negotiation performance, economic negotiations often come with deadlines. From an economic perspective, negotiations are rarely conducted with the aim of negotiation but are the basis for other economic activities. Therefore, the conclusion that a short negotiation duration is part of the integrative negotiation outcome cannot be assumed for this thesis.

Subsequently, the second part of the literature review presents the two theories in the business negotiation context, outlines the research gaps, and derives the hypotheses.

2.2 Theories Aiming for Integrative Negotiations

The literature review for this section was conducted using the Sheffield Hallam University Online Library as well as the Bayerische Staatsbibliothek in Munich. It included the following search terms: "mindset," "scale for integrative mindset," "curiosity," "creativity," "collaboration," "value-focused thinking," and "integrative behaviours". All keywords were paired with "negotiation" and "bargaining". The literature references of the usable articles were examined in a further step for additional articles. The analysis criteria defined were the coverage range, the applications to integrative business negotiations, and the application to the history of negotiation research. Subsequently, the appropriate publications were selected to compile this literature review. The publications presented in Appendix 4 are considered the most relevant. This thesis aims to test and compare two theories in the business negotiation context that claim to affect business negotiation performance. So far, this literature review has presented the three underlying perspectives that must be considered to conduct business negotiation-related research (economics, psychology, and sociology; cf. Walton and McKersie, 1991, p. 1). It has also synthesised the individual business negotiation performance indicators (individual economic outcome, joint economic outcome, and the SVI) with the theory of a behavioural process to gather information (Weingart et al., 1996, p. 1214) to derive a framework of integrative negotiation performance indicators for this thesis to test and compare the two theories in the business negotiation context. Within this second part of the literature review, the two theories in the business negotiation context—the scale for integrative mindset (SIM) by Ade et al. (2020), the value-focused thinking

(VFT) technique of identifying objectives by Keeney (1996), and the integrative negotiation behaviours by Weingart et al. (1996)—are presented, the research gaps are outlined, and the hypotheses for this thesis are derived.

2.2.1 Scale for Integrative Mindset

Correlations between personality traits and negotiation behaviour have long been doubted. Rubin and Brown (1975) believed that ‘there is no systematic relationship between individual differences and bargaining behaviour’ (p. 195). Like Rubin and Brown (1975), Bazerman et al. (2000) and Thompson (1990) also claimed that negotiation outcomes could not be predicted by individual differences, noting that ‘simple individual differences offer limited potential for predicting negotiation outcomes’ (Bazerman et al., 2000, p. 281) and ‘personality and individual differences appear to play a minimal role in determining bargaining behaviour’ (Thompson, 1990, p. 515). In contrast, Barry and Friedman (1998) mentioned that ‘despite inconsistent findings, there is reason to assume that individual differences are important in understanding how individuals manage conflicts’ (p. 346). Barry and Friedman (1998) found that extraversion and agreeableness have ‘an impact on distributive bargaining but not on integrative bargaining, and cognitive ability and conscientiousness have an impact on integrative bargaining but not on distributive bargaining’ (p. 356). A meta-analysis by Sharma et al. (2013) supported these findings and found that individual differences ‘revealed a significant role’ (p. 293) in individual economic outcomes

and joint economic outcomes in negotiations. In addition, Sharma (2015) found that 'nearly fifteen per cent of the variance in the objective outcomes of distributive bargaining encounters can be attributed to negotiators' individual differences, such as personality traits' (p. 53).

Accordingly, in several studies, negotiation research has addressed the negotiator's mindset as an independent and dependent variable (Ade et al., 2018, p. 2). Lately, there are different research fields for mindsets in negotiations, such as 'the effects of choice mindsets as a novel intervention to enhance persistence' by Ma, Yang, and Savani (2019) or 'the effects of pausing silently on zero-sum thinking and deliberative mindsets' by Curhan et al. (2021). Friedman et al. (2020) differentiated between a 'fixed agreement mindset' (immediate implementation of the results when an agreement is reached) and a 'fluid agreement mindset' (seeing an agreement as one step in an ongoing process). Friedman et al. (2020) found that a 'fixed agreement mindset appears to predict important behaviours during and after the negotiation process' (p. 127), such as the time spent on negotiation preparation, the level of detailed agreements, and behaviour and satisfaction after a negotiation.

Ade et al. (2018) echoed the findings of Sharma et al. (2013) and Sharma (2015), stressing the importance of the negotiator's mindset for successful integrative negotiations. According to Ade et al. (2018), mindsets are 'psychological orientations by which people approach negotiations' (p. 1). A more general definition of mindsets was proposed by Rucker and Galinsky (2016) as a 'psychological orientation that affects the selection, encoding, and retrieval of information; as a result, mindsets drive evaluations, actions, and responses' (p.

161). Ade et al. (2018) argued that cognitive beliefs are the reason why individuals

- 1) assume that the parties' interests are diametrically opposed and overlook recognisable opportunities for integrative negotiation (cf. fixed-pie bias; Lewicki and Tomlinson, 2014; De Dreu, Koole and Steinel, 2000; Thompson and Hastie, 1990),
- 2) tend to behave competitively (cf. Harinck et al., 2000), and
- 3) do not trust the opposite person (cf. Butler, 1999; Kramer and Carnevale, 2001).

Negotiators with the cognitive beliefs listed above are classified by Ade et al. (2018) as having a distributive mindset, which results in 'competitive behaviour and strategies [...] that lower the possibility of establishing integrative agreements' (p. 3). Therefore, a distributive mindset can be a constraint for negotiators, as it can influence their behaviours and relationships with their counterparts. Moreover, a distributive mindset can prevent negotiators from using their knowledge and skills (Ade et al., 2018, p. 3). Ade et al. (2018, p. 3) further argued that even those negotiators who have learned integrative negotiation strategies (for example, give-and-take based on preferences and interests or adding negotiation issues) are nevertheless hindered by a distributive mindset in finding optimal solutions. According to Ade et al. (2018),

Mindsets influence cognitive, motivational, and emotional processes, affecting how individuals consciously and unconsciously approach and behave in specific social contexts. They make related knowledge, skills, attitudes, schemas, and associations salient. (Ade et al., 2018, p. 2)

Moreover, Ade et al. (2018, pp. 3–4) claimed that four attributes characterise optimal solutions: first, they create value; second, optimal solutions are more likely to be implemented; third, optimal solutions involve low transaction costs; and finally, optimal agreements tend to strengthen the relationship between the conflicting parties.

Ade et al. (2018, p. 3) claimed that some negotiators already have an integrative mindset, which helps to overcome the fixed-pie perception, use their learned abilities in the parties' best interest, and increase the benefits during integrative negotiation. The authors further argued that 'the mindset that people hold influences how they perceive negotiations, feel about their counterpart, and behave in social interactions' (Ade et al., 2018, p. 3) and that 'being more collaborative, curious, and creative can, at times, allow negotiators to identify and exploit the integrative potential that, at first, remains hidden' (p. 4). Moreover, they proposed that 'another benefit of the integrative mindset is not only that it psychologically prepares individuals for realising integrative potential, but also that it may allow them to help counterparts to do the same' (Ade et al., 2018, p. 9). They argued that the three inclinations of collaboration, curiosity, and creativity, which complement each other, form the integrative mindset. Ade et al. (2018, p. 3) claimed that each of these three inclinations could be activated independently. These three inclinations, which form an integrative mindset, are presented in the following paragraphs.

- 1) Collaboration: Edgren and Barnard (2012; 2015) argued that collaborative people tend to recognise others as co-producers of value. For example, collaborative people are more likely to think about the

strengths and weaknesses of their fellow human beings. Ade et al. (2018) suggested 'that a collaborative inclination can help negotiators to quickly identify common ground and aspects in counterparts that are similar to their own, such as salient shared identity in terms of interests, values, age, gender, or education' (p. 4). Moreover, Ade et al. (2018) argued that 'if negotiators have a collaborative inclination, positive emotions such as satisfaction or joy often result not only from individual gains but also from the value created collaboratively and the very fact that a good relationship has been established or fostered' (p. 4). Furthermore, the motivational level supports the willingness to show respect, share information, listen, and 'invest energy in joint work' (Ade et al., 2018, p. 4). Ade et al. (2020) summarised that 'individuals with a collaborative inclination seek to develop consensual agreements that create value for all parties, and they feel better when they reach win-win deals' (p. 741).

- 2) Curiosity: Ade et al. (2018) argued that people with a curious inclination are more interested in accessing and processing relevant information (e.g., interests and priorities). This tendency towards curiosity is also seen as a means of reducing cognitive biases (e.g., fixed-pie assumption; cf. Bazerman et al., 1985; anchoring bias; cf. Kahneman, 2013). Ade et al. (2018) claimed that curious negotiators ask more questions and address solutions' crucial aspects and motivations. Ade et al. (2017) further claimed that those who 'analyse the interests and positions of all parties might conclude that while parties may have

opposing positions, their underlying interests are compatible with one another' and 'create value by dividing some resources into sub-resources that are of different value to the parties and then make the pie bigger' (p. 4). In their most recent paper, Ade et al. (2020) summarised that 'negotiators with a curious inclination are eager to understand their counterparts and the negotiation context'. 'Interested in the goals and motivations of their counterparts, they tend to ask many questions and listen attentively' (p. 741).

- 3) Creativity: 'Creativity involves novel ways to solve problems and new combinations of familiar ideas and concepts' (Sharma, Bottom, and Elfenbein, 2013, p. 301). Sassenberg and Moskowitz (2005) argued that creativity 'implies [...] the attempt to avoid the conventional routes of thinking and, therefore, the avoidance of the activation of typical associations' (p. 507). As demonstrated by Amabile, Hadley, and Kramer (2002), there is 'no doubt that creative thinking is possible under high pressure [like in negotiations, when people are able] to become deeply immersed in an important, urgent problem' (p. 60). Meanwhile, Ade et al. (2018) concluded that 'a creative inclination [...] might be indicated by the high frequency and the long duration of playful searches for multiple integrative solutions' (Ade et al., 2018, p. 6). Moreover, creative negotiators are 'characterized by high intrinsic motivation concerning the problem-solving process' (Ade et al., 2018, p. 6), are more open to change, take pride in developing and proposing ideas, and can adopt new perspectives. Ade et al. (2020) summarised

that ‘negotiators with a creative inclination enjoy developing and exploring new ideas before committing to a possible solution’. ‘They tend to invest time and energy in the creative process, and they feel alive when they propose ideas’ (p. 741).

Ade et al. (2020, p. 740) aimed to answer how much the integrative mindset can be mapped and measured with a structured questionnaire. Subsequently, the 15-item SIM was derived by introducing a measurement for the integrative mindsets of negotiators. Based on an online survey of 1,030 participants, Ade et al. (2020) provided evidence for psychometric quality. To validate the SIM, the results were compared with other psychometric tests (e.g., Big Five Factors of Personality, cf. Donnellan et al., 2006; Need for Cognitive Closure, cf. Roets and Van Hiel, 2011; Need for Cognition, cf. Cacioppo et al., 1984, 1996; and Scale of Inappropriate Negotiation Strategies, cf. Robinson et al., 2000). Ade et al. (2020) conducted a confirmatory factor analysis using multi-regression analysis and bivariate correlations to provide evidence for statistical properties. The 15 items of the SIM were administered using a six-point Likert scale ranging from 1 (disagree completely) to 6 (agree completely). The 15 items of the SIM are shown in the following table:

Collaboration

- | | |
|---|---------------------------------------------------------------------------------------------|
| 1 | I feel better about a deal beneficial to both parties than about one beneficial only to me. |
| 2 | I am a collaborative negotiator. |
| 3 | I strive for a joint decision that makes both parties happy. |
| 4 | I collaborate rather than compete. |
| 5 | I work toward a consensual win-win agreement even if the rewards for doing so are unclear. |

| | |
|------------|---------------------------------------------------------------------------------------------------|
| Curiosity | |
| 6 | I am interested in my counterparts' negotiation goals. |
| 7 | When my counterparts see things differently than I do, I want to understand why this is the case. |
| 8 | I like listening to my counterparts. |
| 9 | I want to understand my counterparts' motivations. |
| 10 | When negotiating, I am curious about what my counterparts think. |
| Creativity | |
| 11 | In negotiations, I enjoy developing new ideas. |
| 12 | When negotiating, I play with ideas and develop several possible solutions before selecting one. |
| 13 | When negotiating, I come up with many ideas of how solutions could look like. |
| 14 | I am motivated to search for creative solutions, even if doing so requires time and energy. |
| 15 | Proposing creative solutions makes me feel alive in negotiations. |

Table 1: Scale for integrative mindset by Ade et al. (2020, p. 743)

According to Ade et al. (2020), 'the scale fulfils high psychometric standards and allows for measuring integrative mindsets and their three facets' (p. 746). However, Ade et al. (2020; 2018) were fully aware of the shortcomings of mere self-evaluation and the lack of data on how people with a high or low SIM score perform in integrative negotiations. Thus, Ade et al. (2020) recommended this as an opportunity for further research:

The SIM lays the groundwork for future research, especially experimental studies based on behavioural criteria data, that is, data showing how people with high or low SIM scores perform in integrative negotiations. Such studies would allow researchers to understand how much the SIM can predict negotiation performance. (Ade et al., 2020, p. 746)

Based on this research gap, experimental studies should generate knowledge on 'how people with high or low SIM scores perform in integrative negotiations' and to 'understand to which extent the SIM can predict negotiation performance' (Ade et al., 2020, p. 746), the following hypotheses are derived:

H 1.1: Participants with high SIM scores achieve higher individual economic outcomes in integrative negotiations.

H 1.2: Participants with high SIM scores achieve higher joint economic outcomes in integrative negotiations.

H 1.3: Participants with high SIM scores achieve higher subjective value inventories (SVI) of the counterpart in integrative negotiations.

In addition to examining the correlation between an integrative mindset and the three types of integrative negotiation outcomes, this thesis examines whether SIM scores are also a predictor for integrative negotiation behaviour is 'ask questions, [...] address underlying motivations, and crucial aspects of viable solutions' (Ade et al., 2018, p. 5). The relationship between negotiation behaviour and negotiation outcome, especially integrative negotiation behaviour and joint economic outcome, has been examined by Weingart et al. (1996). As mentioned previously, there is a positive correlation between the joint economic outcome and the behaviours of (a) making multi-issue offers, (b) providing information about priorities across issues, (c) asking questions about priorities, (d) suggesting packaging, and (e) suggesting delayed reciprocity (Weingart et al., 1996, p. 1212). Based on this research gap that experimental studies should generate knowledge on 'how people with high or low SIM scores perform in integrative

negotiations', the following hypotheses are derived from testing whether integrative mindsets are a predictor for integrative negotiation behaviour:

H 1.4: Participants with high SIM scores will be more likely to make more multi-issue offers.

H 1.5: Participants with high SIM scores will be more likely to provide more information about priorities across issues.

H 1.6: Participants with high SIM scores will be more likely to ask more questions about priorities.

H 1.7: Participants with high SIM scores will be more likely to suggest the discussion of packaging.

H 1.8: Participants with high SIM scores will be more likely to suggest delayed reciprocity.

The following chart displays Hypotheses H 1.1–H 1.8.

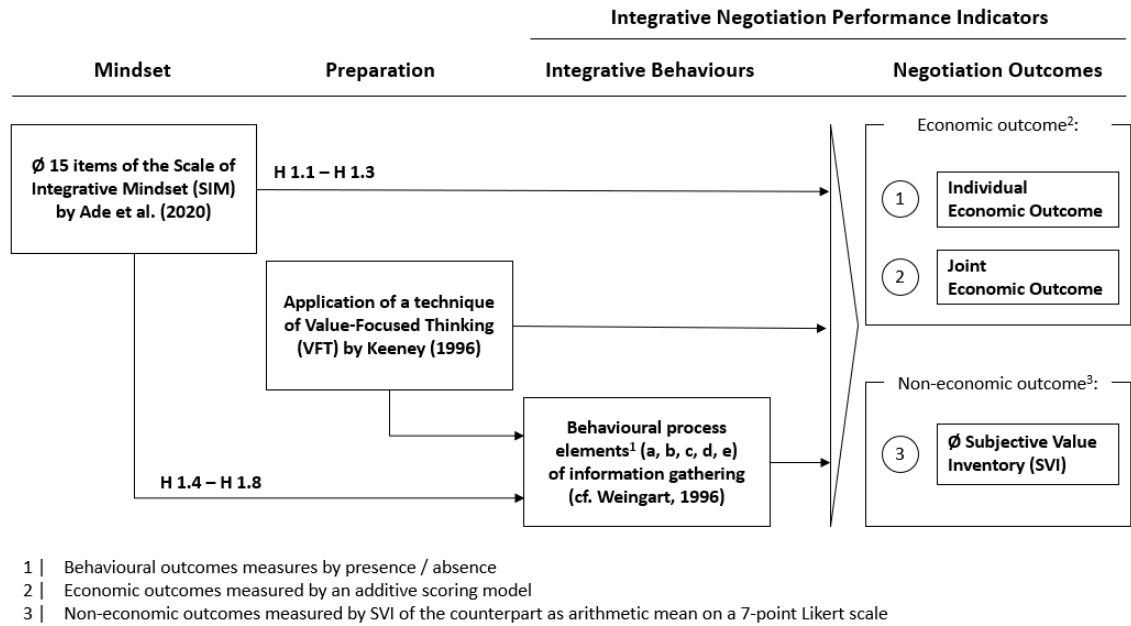


Figure 6: Hypotheses H 1.1–H 1.8 (devised by the author)

As this thesis aims to test and compare two theories in the negotiation context that claim to affect negotiation performance, the illustration above displays the theoretical foundation of testing the SIM as a predictor for integrative negotiation performance (H 1.1 individual economic outcome, H 1.2 joint economic outcome, and H 1.3 SVI) as well as testing the SIM as a predictor for integrative negotiation behaviours (H 1.4 making multi-issue offers, H 1.5 providing information about priorities across issues, H 1.6 asking questions about priorities, H 1.7 suggesting packaging, and H 1.8 suggesting delayed reciprocity).

After presenting the first research gap suggested by Ade et al. (2020), the second theory that claims to affect negotiation performance, the respective research gap, and derived hypotheses are presented in the subsequent section: a negotiation preparation methodology based on a VFT technique of identifying objectives by Keeney (1994).

2.2.2 Value-Focused Thinking Technique of Identifying Objectives

Keeney (1992) differentiated between two antithetical methodologies in decision-making: Alternative-focused thinking (AFT) and VFT. When faced with decision problems, people tend to first identify alternatives and then consider the objectives or criteria for evaluating the alternatives (AFT). Keeney (1992) noted:

[...] decision-making usually focuses on the choice among alternatives. Indeed, it is common to characterize a decision problem by the alternatives available. It seems as if the alternatives present themselves, and the decision problem begins when at least two alternatives have appeared. Descriptively, I think this represents almost all decision situations. Prescriptively, it should be possible to do much better. (Keeney, 1992, p. 3)

In decision-making situations, people respond and focus on already-determined alternatives rather than on the objectives that give meaning to decision-making. Through this methodology, Keeney showed how recognising fundamental values could lead to identifying decision options. VFT involves being proactive, articulating values, and identifying more attractive alternatives to think about before exploring solutions. Therefore, the fundamental concept in decision-making should be valued (VFT), not alternatives (AFT). The VFT framework includes various concepts and procedures for identifying and structuring objectives and, building on this, to systematically develop better alternatives because they align with the objectives. VFT consists of three sequential steps: First, a list of objectives should be developed. Second, the objectives should be structured by examining the fundamental objectives and why these objectives are essential. Third, based on the objectives, potential decision-making options should be developed (Keeney, 1994, pp. 35–37). According to Morais et al.

(2012), value-focused thinking (VFT) provides a systematic approach to structuring complex decisions for subsequent analysis (p. 73). In addition, VFT provides a logical and consistent method for identifying relationships between objectives (Morais et al. 2012).

Indeed, over the last nearly 30 years, VFT has been deployed in various contexts, such as in the military (Jurk et al., 2004; Peharda and Hunjak, 2008; Keeney and Winterfeldt, 2010), wastewater management (Keeney, 1996), technology (Keeney, 1996; Keeney, 2001; Sheng et al., 2005; Sheng et al., 2010), environmental questions (Keeney, 1996; Keeney and McDaniels, 2001; Merrick and Garcia, 2004; Merrick et al., 2005; Morais et al., 2012), tourism management (Kajanus et al., 2004), and idea management (Selart and Johansen, 2011). Pacheco et al. (2019) applied VFT to assess performance indicators for graduate programmes. They listed all VFT publications in the leading scientific databases (IEEE Xplore Scielo, SpringerLink, Emerald Insight, Science Direct, Wiley InterScience, SAGE Journals Online, Gale Cengage Learning) between the initial publication in 1992 and 2018 (see Appendix 6). VFT is also used in recent literature, as Françaço and Belderrain (2022) noted:

VFT has been used in recent literature mainly as a method to identify objectives and evaluate available alternatives in many areas of knowledge. In the view of its practitioners, identifying and classifying objectives is a means of structuring a complex decision problem. VFT focuses on the desired future, the ways to discover and invent new objectives, alternatives, perceptions, and how to approach problems. (p. 7)

In addition to the areas mentioned above of application, Keeney (1992) pointed out that values should be the driving factor in negotiations, as 'negotiations are an obvious class of important decisions in which more than one stakeholder must

agree on an alternative for it to be chosen' (p. 237). Keeney (1992) specifically addressed the applicability of the VFT method in integrative negotiations (pp. 238–239), as negotiators need to list, structure, and prioritise multiple issues. The theoretical rationale for the value of negotiation preparation has been summarised by Peterson and Lucas (2001): 'Planning is undertaken to reduce uncertainty, guide behaviour, and lower the possibility of failure' (p. 46). Furthermore, Keeney (2013, p. 45) argued that analyses of decisions with multiple objectives (e.g., integrative negotiations) require consideration of aspects that are not relevant for decisions with only one objective (e.g., distributive bargaining), and he emphasised that VFT can primarily support integrative negotiations (Keeney, 1992). In addition, Keeney (1992) mentioned that within integrative negotiations,

[...] Each stakeholder must address the vexing value trade-offs of how much to give up in terms of one issue in order to gain a specific amount on another issue. (Keeney, 1992, p. 237)

From the unique perspective of the psychological orientations of negotiators, Keeney (1996) proposed a methodological approach that enables negotiators to identify integrative components of negotiation and influence the negotiation's outcome. According to Keeney (1996, p. 537), VFT helps to identify fundamental values, which are crucial to exploring the interests and priorities of negotiating parties, and 'value-focused thinking helps uncover hidden objectives and leads to more productive information collection' (p. 33).

Accordingly, the VFT methodology focuses on the transition from values to objectives. This is relevant because values can function as moral imperatives,

making it taboo to even consider concessions on issues that affect them (Tetlock, 2003). Schuster et al. (2020) summarised:

Parties in value conflicts are extremely reluctant to trade off concessions on value-related issues against each other. Previous research shows that individuals are less cooperative, less willing to make concessions, and more personally involved in negotiations that are driven by personal values than in negotiation settings about the resources "on the table". (Schuster et al., 2020, p. 1-2)

Therefore, this study considers the VFT methodology in a utility-driven (or resource-driven) conflict rather than a value-driven one. Schuster et al. (2020) differentiated between these two types of conflict by arguing that 'in value-driven negotiations, subjective evaluations are especially relevant because the stakes are not only economic but also personal' (p. 2) and that 'whereas parties in value conflicts negotiate the rightness and wrongness of their identities, parties in resource conflicts negotiate the distribution of economic resources' (p. 2).

Therefore, Keeney focused on the VFT methodology's transition from values to objectives in the pre-negotiation phase 'to stimulate creativity in identifying possible objectives' (Keeney, 1994, p. 33). Furthermore, Keeney (1994) mentioned that VFT 'focuses the decision maker on the essential activities that must occur prior to solving a decision problem' (p. 33). Young and Durwin (in Gvan, 2019) added that pre-negotiation elements based on values prime negotiators' moral realism, which cognitively prepares them towards a collectivistic attitude and frames their thoughts. Therefore, applying VFT to the negotiation context may help parties identify and structure objectives to avoid the "fixed-pie fallacy". Within this context, Keeney and Raiffa (1991, p. 132) suggested: 'that systematic qualitative structuring of values can have huge

payoffs'. For the systematic qualitative structuring of values, Keeney (1992, p. 57; 1994, p. 34) introduced a question-based VFT technique for identifying objectives, including a set of 22 questions in 10 dimensions. This questionnaire is presented in Table 3.

| No. | Topic | Sample Questions |
|-----|---------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. | Develop a wish list | What do you want? What do you value? What should you want? |
| 2. | Identify alternatives | What is a perfect alternative, a terrible alternative, or some reasonable alternative? What is good or bad about each? |
| 3. | Consider problems and shortcomings | What is wrong or right with your organisation? What needs fixing? |
| 4. | Predict consequences | What has occurred that was good or bad? What might occur that you care about? |
| 5. | Identify goals, constraints, and guidelines | What are your aspirations? What limitations are placed on you? |
| 6. | Consider different perspectives | What would your competitor or constituency be concerned about? At some point in the future, what would concern you? |
| 7. | Determine strategic objectives | What are your ultimate objectives? What are your values that are absolutely fundamental? |
| 8. | Determine generic objectives | What objectives do you have for your customers, your employees, your shareholders, and yourself? What environmental, social, economic, or health and safety objectives are important? |

- | | | |
|-----|----------------------|--------------------------------------------------------------------------------------------------------------------------------------------|
| 9. | Structure objectives | Follow means-ends relationships: Why is that objective important? How can you achieve it? Be specific: What do you mean by this objective? |
| 10. | Quantify objectives | How would you measure the achievement of this objective? Why is objective A three times as important as objective B? |

Table 2: Techniques for identifying objectives by Keeney (1994, p. 35)

Although Keeney (1992) explicitly mentioned the applicability of his methodology to labour-management negotiations (pp. 238–239), the VFT methodology has remained largely unconsidered in business negotiation research (cf. meta-analysis by Parnell et al., 2013; Pacheco et al., 2019, p. 502). The only research paper that uses VFT as a pre-negotiation framework was published by Urtiga et al. (2015), who proposed a pre-negotiation framework that ‘aims to create values to turn distributive negotiation into integrative negotiation using VFT to help structure the process so that the parties can rely on integrative negotiation to reach an agreement’ (p. 354). However, Urtiga et al. (2015) did not have evidence or data on how individuals perform in integrative negotiations with or without the treatment of VFT. Thus, using VFT as a business negotiation preparation methodology remains an untested theory. Empirical validation is the next step to testing this theory's effectiveness in business negotiation.

Based on this research gap in applying VFT in an experimental negotiation setting, this thesis uses the question-based VFT technique of identifying objectives as a business negotiation preparation methodology. Based on Keeney's theory that VFT should provide support in integrative negotiations (Keeney, 1992; Keeney, 1994; Keeney, 1996), it is argued that negotiators have an advantage and achieve superior negotiation results through preparation using

the VFT technique of identifying objectives. Similar to the identification of the research gap of the SIM (Ade et al., 2020) and derived hypotheses H 1.1–H 1.8, the VFT technique of identifying objectives is tested in this study for its impacts on negotiation outcomes, which are recorded as individual economic outcomes, joint economic outcomes, and SVI outcomes. Accordingly, the following hypotheses are derived:

H 2.1: Participants applying the VFT technique of identifying objectives achieve higher individual economic outcomes in integrative negotiations.

H 2.2: Participants applying the VFT technique of identifying objectives achieve higher joint economic outcomes in integrative negotiations.

H 2.3: Participants applying the VFT technique of identifying objectives achieve higher subjective value inventories of the counterpart in integrative negotiations.

In addition to examining the correlation between the presence or absence of VFT as a predictor for negotiation outcomes, it will be examined whether the presence or absence of the VFT technique of identifying objectives is also a predictor for integrative negotiation behaviour (cf. Weingart et al., 1996, p. 1214). Accordingly, the following hypotheses are derived from testing the effect of the VFT technique of identifying objectives as a predictor for integrative negotiation behaviour:

H 2.4: Participants applying the VFT technique of identifying objectives will be more likely to make more multi-issue offers.

H 2.5: Participants applying the VFT technique of identifying objectives will be more likely to provide more information about priorities across issues.

H 2.6: Participants applying the VFT technique of identifying objectives will be more likely to ask more questions about priorities.

H 2.7: Participants applying the VFT technique of identifying objectives will be more likely to suggest the discussion of packaging.

H 2.8: Participants applying the VFT technique of identifying objectives will be more likely to suggest delayed reciprocity.

The following chart highlights Hypotheses H 2.1–H 2.8.

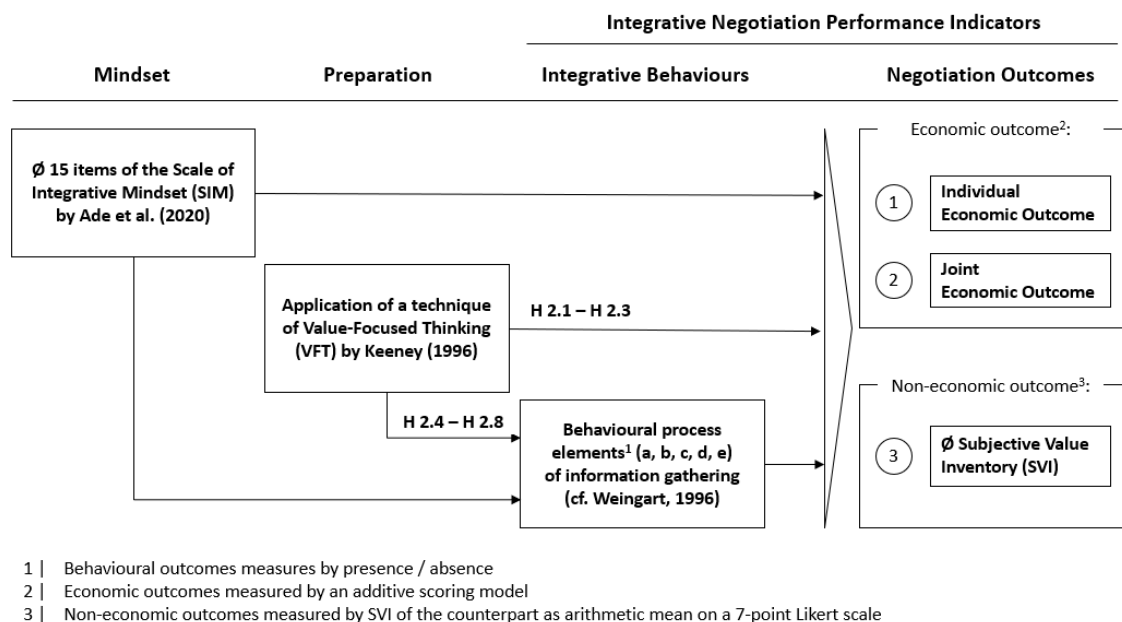


Figure 7: Hypotheses H 2.1–H 2.8 (devised by the author)

The structure of the above chart is adapted from the negotiation process according to Peterson and Lucas (2001; cf. Appendix 7), which builds on the

ideas of Rubin and Brown (1975). Accordingly, negotiation processes consist of three phases: antecedent, concurrent, and consequent. The antecedent phase is a function of characteristics (here: mindset), pre-negotiation (here: preparation), and situational constraints (here: integrative situation). All three functional components influence the negotiation process (concurrent; here: integrative behaviour), which then determines the negotiation outcomes (consequent).

As this thesis aims to test and compare two theories in the negotiation context that claim to affect negotiation performance, the illustration above displays the theoretical foundation for testing the VFT technique of identifying objectives as a predictor for integrative negotiation performance (H 2.1 individual economic outcome, H 2.2 joint economic outcome, and H 2.3 SVI) as well as testing the VFT technique of identifying objectives as a predictor for integrative behaviours (H 2.4 making multi-issue offers, H 2.5 providing information about priorities across issues, H 2.6 asking questions about priorities, H 2.7 suggesting packaging, and H 2.8 suggesting delayed reciprocity). After presenting the second research gap, as suggested by Keeney (1996), the third theory that claims to affect negotiation outcomes and derived hypotheses is presented in the subsequent section: the integrative negotiation behaviours defined by Weingart (1996).

2.2.3 Integrative Negotiation Behaviours

This impact of integrative negotiation behaviours on the integrative negotiation outcome and the Pareto efficiency of the joint economic outcome has been examined by Weingart et al. (1996). The behaviours of (a) making multi-issue

offers, (b) providing information about priorities across issues, (c) asking questions about priorities, (d) suggesting packaging, and (e) suggesting delayed reciprocity are positively correlated with the Pareto efficiency of the joint economic outcome (Weingart et al., 1996, p. 1214). In this thesis, the five behavioural tactics by Weingart et al. (1996) are not only considered behavioural objectives to influence the joint economic outcome of the negotiation (see H 1.4–H 1.8 and H 2.4–H 2.8) but also hypothesised as an individual theory that might affect all the integrative negotiation outcomes of the PIEO, PJEO, and SVI. Like H 1.1–H 1.3 and H 2.1–H 2.3, the integrative negotiation behaviours defined by Weingart et al. (1996) are tested in this study for their impacts on negotiation outcomes, which are recorded as individual economic outcomes, joint economic outcomes, and SVI outcomes. Accordingly, the following hypotheses are derived:

- H 3.1:** Participants applying the integrative negotiation behaviour of making multi-issue offers achieve higher individual economic outcomes in integrative negotiations.
- H 3.2:** Participants applying the integrative negotiation behaviour of making multi-issue offers achieve higher joint economic outcomes in integrative negotiations.
- H 3.3:** Participants applying the integrative negotiation behaviour of making multi-issue offers achieve higher subjective value inventories of the counterpart in integrative negotiations.
- H 3.4:** Participants applying the integrative negotiation behaviour of providing information about priorities across issues achieve

higher individual economic outcomes in integrative negotiations.

H 3.5: Participants applying the integrative negotiation behaviour of providing information about priorities across issues achieve higher joint economic outcomes in integrative negotiations.

H 3.6: Participants applying the integrative negotiation behaviour of providing information about priorities across issues achieve higher subjective value inventories of the counterpart in integrative negotiations.

H 3.7: Participants applying the integrative negotiation behaviour of asking questions about priorities achieve higher individual economic outcomes in integrative negotiations.

H 3.8: Participants applying the integrative negotiation behaviour of asking questions about priorities achieve higher joint economic outcomes in integrative negotiations.

H 3.9: Participants applying the integrative negotiation behaviour of asking questions about priorities achieve higher subjective value inventories of the counterpart in integrative negotiations.

H 3.10: Participants applying the integrative negotiation behaviour of suggesting packaging achieve higher individual economic outcomes in integrative negotiations.

- H 3.11:** Participants applying the integrative negotiation behaviour of suggesting packaging achieve higher joint economic outcomes in integrative negotiations.
- H 3.12:** Participants applying the integrative negotiation behaviour of suggesting packaging achieve higher subjective value inventories of the counterpart in integrative negotiations.
- H 3.13:** Participants applying the integrative negotiation behaviour of suggesting delayed reciprocity achieve higher individual economic outcomes in integrative negotiations.
- H 3.14:** Participants applying the integrative negotiation behaviour of suggesting delayed reciprocity achieve higher joint economic outcomes in integrative negotiations.
- H 3.15:** Participants applying the integrative negotiation behaviour of suggesting delayed reciprocity achieve higher subjective value inventories of the counterpart in integrative negotiations.

The following chart highlights Hypotheses H 3.1–H 3.15.

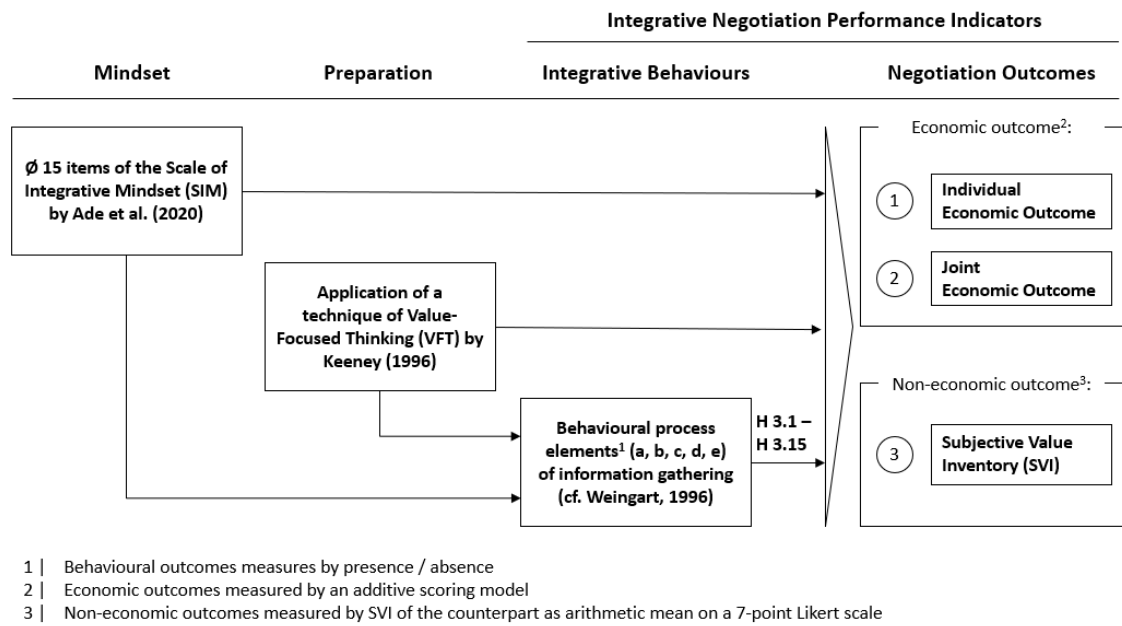


Figure 8: Hypotheses H 3.1–H 3.15 (devised by the author)

After presenting the third theory and corresponding set of hypotheses, the subsequent section compares the two theories of the SIM and the VFT technique of identifying objectives.

2.2.4 Theoretical Comparison of the Theories Aiming for Integrative Negotiation

This thesis aims to test and compare the two theories, the SIM by Ade et al. (2020) and the VFT technique of identifying objectives by Keeney (1992), that claim to affect negotiation performance. The validity of these theories (SIM and VFT) has not yet been evaluated in comparative research. Popper argued ‘that one cannot verify a theory; one can only disprove it’ (Popper in Derksen, 2019,

p. 450). Therefore, Popper (1972, p. 9) suggested the following four ways of testing a theory:

- (1) Examination of internal consistency of a theory and logical comparison of conclusions.
- (2) Examination of a theory regarding its empirical or scientific character.
- (3) Making certain the theory offers scientific advances compared to others.
- (4) Testing theories by empirically applying the conclusions derived from them.

Both theories were published and peer-reviewed. Accordingly, it is concluded that the (1) internal consistency of the theories, their conclusions, and their (2) scientific character is assumed. However, these theories have not yet been tested experimentally and compared to each other. Based on this research gap, Popper's recommendation (3) of adequately testing a theory can be conducted by comparing the two theories and (4) testing them by empirically applying their conclusions to determine if and which of the theories generate superior outcomes in integrative business negotiations. As Hypotheses H 1.1–H 1.8 (SIM) and H 2.1–H 2.8 (VFT) test the theories by empirically applying the conclusions derived from them according to Popper's fourth recommendation, further hypotheses are derived from applying Popper's third recommendation, the comparison of two theories. A deductive method of empirical testing is applied to compare the opposing theories.

Assuming that a sequential integration of theories leads to better individual economic outcomes, joint economic outcomes, SVI, and integrative negotiation behaviours, the following hypotheses are derived:

- H 4.1:** Applying the VFT technique of identifying objectives has a strengthening (compensatory) effect on participants with a high (low) SIM on the individual economic outcome in integrative negotiations.
- H 4.2:** Applying the VFT technique of identifying objectives has a strengthening (compensatory) effect on participants with a high (low) SIM on the joint economic outcome in integrative negotiations.
- H 4.3:** Applying the VFT technique of identifying objectives has a strengthening (compensatory) effect on participants with a high (low) SIM on subjective value inventories of the counterpart in integrative negotiations.
- H 4.4:** Applying the VFT technique of identifying objectives has a strengthening (compensatory) effect on participants with a high (low) SIM on making multi-issue offers.
- H 4.5:** Applying the VFT technique of identifying objectives has a strengthening (compensatory) effect on participants with a high (low) SIM on providing more information about priorities across issues.
- H 4.6:** Applying the VFT technique of identifying objectives has a strengthening (compensatory) effect on participants with a high (low) SIM on asking more questions about priorities.

H 4.7: Applying the VFT technique of identifying objectives has a strengthening (compensatory) effect on participants with a high (low) SIM on suggesting the discussion of packaging.

H 4.8: Applying the VFT technique of identifying objectives has a strengthening (compensatory) effect on participants with a high (low) SIM suggesting delayed reciprocity.

The following chart illustrates Hypotheses 4.1–4.8.

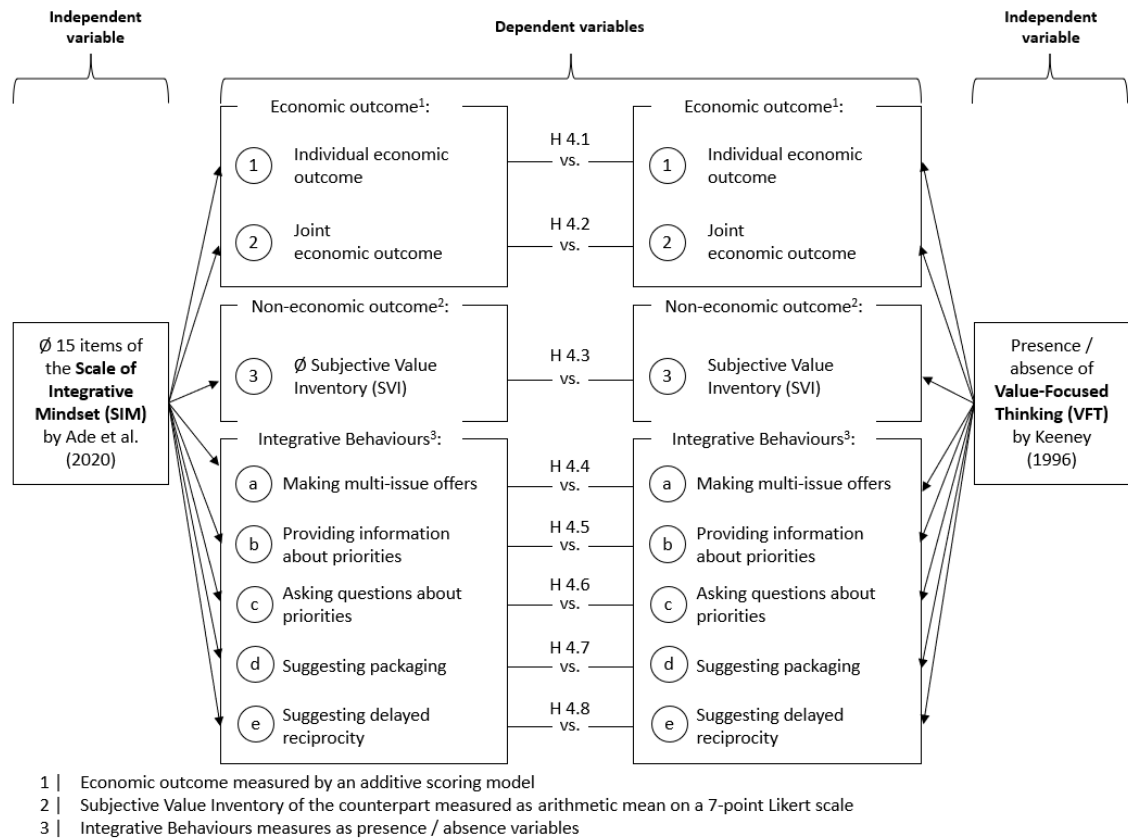


Figure 9: Hypotheses H 4.1–H 4.8 (devised by the author)

As this thesis aims to test and compare two theories in the negotiation context that claim to affect negotiation performance, the illustration above displays the

theoretical foundation for comparing the SIM and the VFT technique of identifying objectives as a predictor for integrative negotiation performance (H 4.1 individual economic outcome, H 4.2 joint economic outcome, and H 4.3 SVI) as well as comparing the SIM and the VFT technique of identifying objectives as a predictor for integrative negotiation behaviours (H 4.4 making multi-issue offers, H 4.5 providing information about priorities across issues, H 4.6 asking questions about priorities, H 4.7 suggesting packaging, and H 4.8 suggesting delayed reciprocity).

This chapter formed the business negotiation-related literature foundation for this research. First, negotiation research's different perspectives (economic, psychological, and sociological) were presented and synthesised to derive a holistic measurement of integrative business negotiation performance. For this thesis, integrative business negotiation performance is assessed through individual economic outcome, joint economic outcome, SVI, and integrative negotiation behaviour. The second part of the literature review presented the theories in the negotiation context: the SIM by Ade et al. (2020), the VFT technique of identifying objectives by Keeney (1992), and the integrative negotiation behaviours by Weingart (1996). Finally, the research gaps were outlined, and the hypotheses were derived from testing and comparing the two theories in the negotiation context that claim to affect negotiation performance.

The following section summarizes the research gaps.

2.2.5 Summary of Research Gaps

This thesis addresses the following two research gaps:

First, Ade et al. (2020; 2018) were fully aware of the lack of data on how people with a high or low SIM score perform in integrative negotiations. Thus, Ade et al. (2020) recommended this as an opportunity for further research:

The SIM lays the groundwork for future research, especially experimental studies based on behavioural criteria data, that is, data showing how people with high or low SIM scores perform in integrative negotiations. Such studies would allow researchers to understand how much the SIM can predict negotiation performance. (Ade et al., 2020, p. 746)

Based on this research gap, experimental studies should generate knowledge on 'how people with high or low SIM scores perform in integrative negotiations' and 'understand to what extent the SIM can predict negotiation performance' (Ade et al., 2020, p. 746). This thesis aims to close that research gap.

Second, although Keeney (1992) explicitly mentioned the applicability of his methodology to labour-management negotiations (pp. 238–239), the VFT methodology has remained largely unconsidered in business negotiation research (cf. meta-analysis by Parnell et al., 2013; Pacheco et al., 2019, p. 502). Therefore, the advantage of using VFT as a business negotiation preparation methodology remains an untested theory. Empirical validation is the next step to testing this theory's effectiveness in business negotiation, and this thesis aims to close that research gap.

After presenting the perspectives of business negotiation research and the theories aiming for integrative negotiations, which included two sub-chapters to

provide the foundation for testing and comparing the two theories, the subsequent section outlines the context of this thesis: labour negotiations.

2.3 Labour Negotiations as the Context of this Thesis

‘Undoubtedly labour negotiators [...] see the negotiating world vastly different from, say, lawyers that represent clients in civil liability suits.’

(Raiffa, 1982, p. 119)

Negotiation is a recurring part of professional life. ‘Professionals negotiate to buy, sell, or sign agreements’ (Ramirez-Marin et al., 2020, p. 407), and a frequent and often recurring dispute in business life is labour negotiations (Walton and McKersie, 1991, p. 3). Therefore, this thesis uses labour negotiations as the context for its research.

Walton and McKersie (1991) described labour negotiations as

An example of social negotiation is the deliberate interaction of two or more complex social units attempting to define or redefine the terms of their interdependence. (Walton and McKersie, 1991, p. 3)

The subsequent sections illustrate the context of labour negotiation as a specific category of business negotiation and consider the participating parties involved, the unique elements in labour negotiations, the problems in labour negotiations, and the impact of this thesis on labour negotiations.

The literature review for this section was conducted using the Sheffield Hallam University Online Library as well as the Bayerische Staatsbibliothek in Munich and included the following search terms: "labour," "collective," "union," "management," and "bilateral monopoly". All keywords were paired with the terms "negotiation" and "bargaining". The literature references of the usable articles were examined in a further step for additional articles. The analysis criteria defined were the coverage range, the applications to integrative business negotiations, and the application to the history of negotiation research. Subsequently, the appropriate publications were selected to compile this literature review. The publications presented in the following table are considered the most relevant.

2.3.1 Participating Parties in Labour Negotiations

The relationship between employers and employees approximates a bilateral monopoly (Hieser, 1970, p. 55). Although in a bilateral monopoly, it may be possible in particular situations for one party to have absolute bargaining power over the other, the general principle in a bilateral monopoly is that 'neither party completely dominates the other in bargaining power' (Truett and Truett, 1993, p. 260). Accordingly, the relationship between employer and employee could be compared with that of a single provider of one issue and a single buyer of one issue, with the issue being "labour". Another specific characteristic of a bilateral monopoly concerning labour negotiations is the relationship between the two negotiating partners. In particular, the 'relationship between the parties to labour

negotiations is usually unique, continuing, and long-term' (Walton and McKersie, 1991, p. 3). Both sides also cultivate this relationship. While professional specialists still conducted labour negotiations in the 1960s, today, the respective representatives of the two parties participate directly in the negotiations and 'rely less exclusively on their agents' (Walton and McKersie, 1991, p. xx). The following paragraphs present the individual characteristics of the labour representatives (suppliers of labour) and management representatives (buyers of labour).

Labour representatives are one party to the bilateral monopoly in labour negotiations. In addition to negotiating remunerations, labour and management representatives are equally involved in, for example, 'redesigning jobs, shaping the quality of work-life programs, and formulating training programs' (Walton and McKersie, 1991, p. xxi). In contrast to management representatives, labour representatives have a special negotiating position since they 'cannot pursue maximisation by way of marginal adjustment' (Hieser, 1970, p. 59). Hieser (1970) argued:

[...] An employer may employ a few more men [and women] or a few fewer; a trade union cannot normally withdraw labour except as a whole. It either accepts an offered rate of pay or rejects it. If it accepts, it will supply all available labour at that price; if it rejects, it will supply no labour. (Hieser, 1970, p. 59)

This consequence described above represents the ultimate possibility of sanctions by the labour representatives—a strike. However, the final sanction is only possible if the labour representatives have absolute control over large parts of the labour supply (Hieser, 1970, p. 59). The characteristics and effects of strikes are presented in Section 3.2, 'Unique Elements in Labour Negotiations'.

Management representatives are the second party to the bilateral monopoly in labour negotiations. The global principles of the ILO and national labour laws 'permit management to use more powerful distributive bargaining tactics, such as a permanent replacement for striking workers' (Walton and McKersie, 1991, p. xx). Management representatives nowadays have adapted to the situation and negotiation models to gain an advantage from the negotiations. While in the 1960s, it was labour representatives who initiated the negotiations, '[...] today management is more likely to initiate changes in the collective bargaining agreement [...]' (Walton and McKersie, 1991, p. xx). Moreover, Walton and McKersie (1991) argued:

Operating managers have become more directly involved precisely because they can understand requirements resulting from competition and identify the implications of those requirements for cost structures and operational practices, such as flexible work assignments. (Walton and McKersie, 1991, p. xxi)

A bilateral monopoly, global principles and national laws, unequal distribution of power (e.g., strikes vs marginal adjustment), and many different objectives (e.g., remunerations, redesigning jobs, work-life programs, training programs) demonstrate the unique nature of labour negotiations. This unique nature is also illustrated by the unique elements presented in the subsequent sections.

2.3.2 Unique Elements in Labour Negotiations

According to Walton and McKersie (1991, p. 4), labour negotiations include four systems of activity, each with its internal logic, individual set of tools and tactics, and function for the participating parties. These four activities, also described as 'subprocesses', are distributive bargaining, integrative negotiation, attitudinal structuring, and intra-organisational negotiation. These activities and their specifications concerning labour negotiations are presented in the subsequent sections.

Distributive elements of negotiation have already been introduced in the previous sub-chapter. It was shown that distributive negotiations are cases where a single issue is divided between the parties and equals a "tug of war". According to the context of labour negotiations, Walton and McKersie (1991) argued that distributive bargaining is 'usually regarded as the dominant activity in the union-management relationship' (p. 11) and 'occurs in situations in which one party wins what the other party loses' (p. 11). Walton and McKersie (1991) mentioned that the 'determination of wages, hours, and working conditions [...] involves the allocation of scarce resources [...] and is assumed to be some conflict of interest between management and unions' (p. 11). As a result of this conflict situation, based on the allocation of scarce resources, there is a possibility of escalation for the labour representatives in labour negotiations: A strike. Walton and McKersie (1991) noted that 'for any point on the spectrum that a negotiator may choose as the settlement point, there are two possible outcomes: first, the other party may agree; and second, the other party may disagree, and a strike may result' (p. 12). Meanwhile, Hieser (1970) mentioned:

[...] the final sanction of a trade union lies in its ability to exercise control over the total labour supply. Hence, in what follows, we shall consider the ordinary strike [...] as the ultimate element of a trade union's bargaining power. (Hieser, 1970, p. 59)

Most collective bargaining can be settled without the penalties of a strike (Raiffa, 1982, pp. 80–81). Similarly, Hieser (1970) argued that '[...] actual strike action does not need to be invoked: it will be sufficient that the power be there and calculable' (p. 59). However, the possibility of a strike often makes negotiators more responsible in pre-strike negotiations (Raiffa, 1982). If two bargaining parties negotiate a collective agreement and both are firmly convinced that their side is in the right, then 'the waiting game is helped considerably by imposing fines on delay' (Raiffa, 1982, p. 80). A strike impacts both the labour's side and the management's side, with the value of the strike costs being assessed individually (Walton and McKersie, 1991, pp. 31–32). Walton and McKersie (1991, pp. 31–32) listed the costs the labour representatives must calculate for loss of employees' wages and reduction of the union's financial resources, loss of institutional stability, membership, and status of the union as a negotiating partner; loss of reputation amongst management; and loss of public reputation. On the other hand, management also suffers from strike costs. These can include loss of operating results and market position, loss of management reputation with shareholders, loss of goodwill with employees, and loss of public reputation. Walton and McKersie (1991) argued that the cost of strikes, which is a 'variation of the concept of utilities, is employed in exploring the influence of the various costs associated with the strike action itself' (p. 12). Hence, it is possible to lose something by striking and convince the partner to give up a larger share in the distributive bargaining: a so-called "strike gain".

The dilemma in distributive labour negotiations is, at least in theory, that there is a winner and a loser. The public tug-of-war nature of distributive bargaining, where one party's gain inevitably leads to the other party's loss, could lead to a loss of reputation for at least one of both parties (Walton and McKersie, 1991, p. 31). Walton and McKersie (1991) argued that 'if distributive bargaining is pursued too vigorously, then a negotiator may gain the greater share, but of a smaller set of joint gains, or worse, may generate an outcome in which both parties lose' (p. xxv). To circumvent or at least mitigate this dilemma, Walton and McKersie (1991) juxtaposed the second sub-process: integrative negotiation. This second sub-process is presented in the subsequent section.

In labour negotiations, there are usually several negotiating issues on the agenda (Balke, 1973). One issue is labour compensation. Due to the economic fact that 'money is money' (Walton and McKersie, 1991, p. 129) and can only be distributed between two parties, one could think that labour negotiations only consist of one issue and are, therefore, distributive in nature. However, other agenda items are intertwined beyond compensation and may be valued differently by the two parties (e.g., vacation and insurance benefits). On that note, Lax and Sebenius (2002) wrote:

While common ground—in the sense of accurate communication and trust, along with the possibility that both sides want an identical outcome—is generally good, the most valuable sources of value in the agreement are typically created because of differences among the parties. These include differences in relative cost or revenue structure; priority or valuation; forecasts or beliefs about the future; attitude toward risk; attitude towards time; capabilities; in tax or accounting treatment; or myriad other characteristics of the negotiation. (Lax and Sebenius, 2002, p. 12)

Walton and McKersie (1991) mentioned, for example, 'individual job security and management flexibility' (p. 129–130). Therefore, integrative negotiation in labour negotiations is 'applied to situations in which the total payoff is varying in a significant way, even though both parties may not share equally in the joint gain, and indeed one may even suffer minor inconveniences in order to provide substantial gains for the other' (Walton and McKersie, 1991, pp. 127–18). This approach has the advantage that the party accepting a comparatively small loss on one agenda item in favour of a more significant gain for the other party receives a more considerable endorsement from the opposite side on another agenda item where the relative valuations are diametrically opposed. This means that the utility functions of the two parties do not have to be identical or parallel. Sharma et al. (2013) summarised: 'Integrative negotiations typically benefit from thought and effort, considering multiple issues simultaneously, sharing information while seeking information, building trust, problem-solving, and avoiding overtly contentious behaviour' (p. 298).

However, there are some dilemmas in integrative labour negotiation: First, Walton and McKersie (1991, p. 129) mentioned that the inequality of the individual utility functions might not be obvious to the negotiating parties. Accordingly, there is the problem of recognising the integrative components of a labour negotiation. Walton and McKersie (1991) argued that 'integrative potential can be exploited only if it is first discovered, its nature explored, and then acted upon by the parties' (p. 137). This refers to the fixed-pie assumption discussed in the previous sub-chapter. This dilemma is based on the mixed distributive bargaining and integrative negotiation issues within labour negotiations. Walton and McKersie (1991, pp. 161–163) referred to this situation as 'mixed situations', which involves

'a variable sum, variable-share payoff structure' (p. 162). Furthermore, Walton and McKersie argued:

If distributive bargaining is pursued too vigorously, then a negotiator may gain the more significant share but from a smaller set of joint gains, or worse, may generate an outcome in which both parties lose. Similarly, if the negotiator pursues integrative bargaining in a single-minded manner, for example, by being totally candid and completely forthcoming with information, he or she can be taken advantage of by the other party. Managing the dilemmas between these two subprocesses presents a central challenge to negotiators, regardless of the social setting. (Walton and McKersie, 1991, p. xxv) If distributive bargaining is pursued too vigorously, then a negotiator may gain the more significant share but from a smaller set of joint gains, or worse, may generate an outcome in which both parties lose. Similarly, if the negotiator pursues integrative bargaining in a single-minded manner, for example, by being totally candid and utterly forthcoming with information, he or she can be taken advantage of by the other party. Managing the dilemmas between these two subprocesses presents a central challenge to negotiators, regardless of the social setting. (Walton and McKersie, 1991, p. xxv)

Sebenius (2015) echoed that distributive bargaining and integrative negotiation tactics are often used independently of the issue structure and claimed that some negotiators negotiate in a distributive "claiming" manner despite high integrative potential. Likewise, in cases lacking integrative potential, some negotiators proceed with a focus on expected gains, which leads to unproductive negotiations. Sebenius (2015) concluded that 'in a negotiation, the pie [...] is expanded to whatever extent, if at all'. Moreover, the pie is divided, in whatever proportions. Both processes are inherently involved, although the tactical emphasis may vary. (pp. 340-341). A second dilemma is also based on the vague boundary between distributive bargaining and integrative negotiation and has implications for the motivation of the respective parties. If the parties first try to divide the fixed pie among each other, this shows a high level of self-interest. Accordingly, according to the DCT, this orientation could lead to an increased

degree of the negotiating strategy of contending (cf. Pruitt and Carnevale, 1993, p. 105). To negotiate interactively, motivation would have to extend to the complementary interests of the other party and one's own. However, the path to recognising mutual interests could be made more difficult after a distributive negotiation, as distributive negotiations 'tend to be more responsive to the competitive benchmarks of the particular business unit' (Walton and McKersie, 1991, p. xx) and could eventually 'escalate into a deadly encounter' (Walton and McKersie, 1991, p. 179). After the first two sub-processes of distributive bargaining and integrative negotiation in the context of labour negotiations have been presented, the sub-process of 'attitudinal structuring' is presented in the following section. Peter (1954) mentioned that 'the collective bargaining history of a particular industrial group has more to do with the shaping of attitudes [...] than any single factor' (p. 206). As highlighted earlier in this chapter, the 'relationship between the parties to labour negotiations is usually unique, continuing, and long-term' (Walton and McKersie, 1991, p. 3). Due to the uniqueness of the ongoing and long-term relationship between labour and management representatives, the socio-psychological attitudes of the respective actors are relevant. Labour contracts consist of two agreements: a substantive agreement and a social agreement (Walton et al., 1994). The substantive agreement includes measurable negotiated outcomes, such as working conditions and wages. The social agreement consists of the institutional and individual relationships between the involved parties. As in the theory of cooperation and competition (Deutsch, 2014) and the DCT (Pruitt and Rubin, 1996), Walton and McKersie (1991) also addressed the socio-psychological

orientations of the negotiating partners in labour negotiations and called this sub-process 'attitudinal structuring'.

In this sub-process, the relationships of the negotiating partners are compared with each other, and the respective attitudinal dimensions are revealed. According to Walton and McKersie (1991), possible attitudinal dimensions include '(1) motivational orientation and action tendencies toward each other (competitive-individualistic-cooperative), (2) beliefs about the other's legitimacy, (3) feelings of trust toward the other, and (4) feelings of friendliness or hostility toward the other' (p. 185).

However, there are some dilemmas of attitudinal structuring in labour negotiations. The first dilemma of motivational orientation and action tendencies towards each other is linked to the first dilemma of the integrative elements of labour negotiation from the previous section. According to Walton and McKersie (1991, p. 270), if a negotiating party wants to build a good relationship, a sacrifice in the substance of distributive bargaining is often necessary. However, this sacrifice in substance has a detrimental effect on the self-interest of the party giving in. At the same time, a gain in a distributive bargaining element can disadvantage the relationship. Some negotiators also manipulate this process through strategic misrepresentations to make gains on another agenda item (Walton and McKersie, 1991, p. 270; Raiffa, 1982, p. 144). The second dilemma concerns the development of trust between the negotiating parties. Strategic misrepresentations (Walton and McKersie, 1991, p. 270; Raiffa, 1982, p. 144) from the distributive bargaining elements can weaken existing trust or be an obstacle to building trust (Walton and McKersie, 1991, pp. 275-276). The third dilemma in attitudinal structuring is the development of friendly attitudes. The

other party might feel offended through distributive negotiation tactics, such as exaggerating the resistant points as an anchor and thus emphasising the difference of the positions (Malhotra and Bazerman, 2015; Hammond, Keeney, and Raiffa, 1998). Walton and McKersie (1991) argued that 'the final offer first tactic can be implemented only by ignoring the arguments of the opponent, with an obvious cost to the relationship between the negotiators' (p. 273). The final sub-process of intra-organisational labour negotiations is presented in the following section. Sebenius (2015, p. 344) emphasised that in labour negotiations, in addition to the argument "across the table", the argument "behind the table" is also crucial. By the expression "behind the table", Sebenius (2015) referred to the analysis of the "principal-agent" relationship between the apparent negotiators (labour representatives and management representatives) and their stakeholders back home. Sebenius (2015) argued that 'agents bargaining with other agents implicitly also have dealings with their principals back home, a relationship that presumably involves bargaining' (p. 344). Walton and McKersie (1991, p. 185) argued that the attitudes of individual team members representing labour and management could differ significantly from those of the institution they represent.

This sub-process, the intra-organisational negotiation, addresses the lack of internal consensus. Especially in labour negotiations, several internal parties 'may have different ideas about the priorities assigned to various objectives being pursued, or they may disagree on what should be minimally acceptable for the total contract' (Walton and McKersie, 1991, p. 281). First, these different perspectives can show a difference in which agenda items are distributive and which could have an integrative character. Second, the manner of negotiation

and the type of relationship with the other party could be questioned (Walton and McKersie, 1991, p. 281). According to Walton and McKersie (1991), the nature of internal conflict can be found in (1) the sets of expectations by different group members (p. 283), (2) the heterogeneity of the group (p. 291), (3) the influence of disutility for different members of one party (p. 293), (4) perceptual factors (p. 294), (5) the complexity of negotiations (p. 295), and (6) the novelty of a situation, as problems in labour negotiations tend to change (p. 296) rapidly. The most relevant dilemma, in connection with the other sub-processes (distributive bargaining, integrative negotiation, and attitudinal structuring), relates to the element of distributive bargaining. Walton and McKersie (1991) mentioned that 'almost by definition, the two processes of intraorganizational bargaining and distributive bargaining are in conflict' (pp. 344–345). They argued:

In distributive bargaining, the negotiator attempts to modify the opponent's position toward the expectations of his principles. In internal bargaining, the negotiator endeavours to bring the expectations of his principals into alignment with those of the opponent. (Walton and McKersie, 1991, p. 345)

The current section presents the four sub-processes in a labour negotiation and their dilemmas. In comparing the dilemmas of distributive bargaining and integrative negotiation, as well as attitudinal structuring and intra-organisational negotiation, it is evident that many dilemmas address the conflict between the distributive and integrative elements. Therefore, one of the key questions for labour and management representatives is identifying integrative negotiating components and increasing the available share (overcoming the fixed-pie myth) before it can be distributed to the two parties afterwards.

2.3.3 Problems in Labour Negotiations

With voluntary agreements as the cornerstone of a free market (Friedman, 1962, pp. 8–9), negotiation strategy is a crucial factor in the corporate context (Chapman et al., 2017, p. 953) and has been the subject of extensive academic debates in the field of organisational behaviour and management science (Brett and Thompson, 2016, p. 68; Peleckis, 2015, p. 106). Bazerman and Neale (1992) claimed that ‘nothing is more central to business than negotiation’ (p. 68). In this context, labour negotiations have been the research subject for a long time (Sengenberger, 2015; Walton and McKersie, 1991, p. 1). Walton and McKersie (1991) mentioned that the ‘determination of wages, hours, and working conditions [...] involves the allocation of scarce resources [...] and is assumed to be some conflict of interest between management and unions’ (p. 11). This multitude of negotiation issues indicates integrative potential, in which there are two parties and several issues to be negotiated (Raiffa, 1982, p. 131). The "negotiator's dilemma", which describes the conflict between creating and claiming value, still applies to integrative negotiations (Lax and Sebenius, 1986, p. 154), and Bazerman et al. (1999) phrased it this way:

In the context of multi-issue negotiations that characterize many real-world conflicts, it is not difficult to understand how the parties could fail to correctively identify each other's preferences. (Bazerman et al., 1999, p. 1283)

On the one hand, the fixed-pie assumption is attributed to the cognitively complex situations in which the negotiating parties generalise competitive negotiations. On the other hand, this tendency is shaped by social norms, which are influenced

by 'a society in which athletic competitions are far too frequently used as a metaphor' (Bazerman et al., 1999, p. 1285).

According to Ade et al. (2020, p. 740), little is known about why some negotiators are better at integrative negotiations than others. The factors that might prevent raising integrative potentials in labour negotiations are inappropriate personality traits of the negotiators and an inappropriate methodological approach (cf. Pinkley, 1995, p. 110). Peterson and Lucas (2001) assigned the problem to the pre-negotiation phase: 'From a managerial perspective, without a more thorough understanding of the factors and behaviours of the pre-negotiation phase, the ability to select and direct negotiators or negotiating teams will continue to be negatively impacted' (p. 60). Both factors that can be considered in the pre-negotiation phase—the personality traits of the negotiators and a methodological approach—are presented in the problem statements in the following sections.

Deutsch (2014, p. 15) claimed that the most essential characteristic of conflict resolution is the win-win orientation, whereas the win-lose orientation hinders conflict resolution. There is little knowledge about why some negotiators suffer from the fixed-pie assumption and why some negotiators can avoid this bias. This thesis uses the performance indicators for avoiding the fixed-pie assumption in integrative negotiations as individual economic outcomes, joint economic outcomes, SVI, and integrative negotiation behaviours. In a meta-analysis by Sharma et al. (2013), it was found that '[...] numerous personality traits demonstrate validity over multiple outcome measures' (p. 293).

Business Problem 1: Organizations and their representatives may use the scale for integrative mindset proposed by Ade et al.

(2020) to test the personality traits of negotiators. However, the effectiveness of the scale for integrative mindset for achieving integrative negotiation objectives has not yet been confirmed in a laboratory experiment.

The second factor that might prevent raising integrative potentials in labour negotiations is an inappropriate methodological approach. According to Keeney (1992), when faced with decision problems, people tend first to identify alternatives and then consider the objectives or criteria for evaluating the alternatives: 'You first figure out what alternatives are available and then choose the best of a lot' (p. 4).

Business Problem 2: Organizations and their representatives may use the VFT technique of identifying objectives developed by Keeney (1994) in the pre-negotiation phase. However, the effectiveness of the VFT technique for identifying objectives for achieving integrative negotiation objectives has not yet been confirmed in a laboratory experiment.

Sharma (2015) concluded that 'given the importance and prevalence of negotiations in business settings, it merits further investigation to explore why some negotiators underperform while others succeed in achieving their desired outcomes' (p. 96).

2.3.4 Impact on Labour Negotiations

Companies and individuals are eager for guidance on how to negotiate more effectively and often look to academics to translate the current state of knowledge for their own purposes (Chapman et al., 2017; Sharma, 2015; Sharma, Bottom, and Elfenbein, 2013; Thompson, 2008; Malhotra and Bazerman, 2007; Brett, 2001). This is relevant since a challenging aspect of managers' work has long been the ability to negotiate agreements under conditions of uncertainty (Gebelein et al., 2004; Lax and Sebenius, 1986; Mintzberg, 1973; Sayles, 1964). Sharma et al. (2019) mentioned that an 'organization that can train and/or select better negotiators [...] functions more effectively' (p. 145). Furthermore, Chapman et al. (2017) argued:

Negotiation skills are valuable and pervasive across many organizations, so recognizing the development process of obtaining such skills has implications for academics and practitioners. (Chapman et al., 2017, p. 953)

This research has two practical implications for organisations: (1) the identification of the relevance of identifying appropriate negotiator characteristics to exploit integrative potentials; and (2) the sharpening of training programmes to equip negotiators with appropriate tools to exploit integrative potentials. These two implications are presented in the subsequent paragraphs.

Ade et al. (2018) argued that negotiators' mindsets will likely significantly impact negotiation outcomes. Accordingly, especially in negotiations with integrative potential, it is hypothesised that a negotiator with the appropriate mindset for exploiting integrative potential should lead the negotiation. Although some researchers consider it unethical to make practical use of this knowledge because the individuals affected cannot do anything about it (Bazerman and Carroll, 1987),

this knowledge can still be of value. Affected individuals could utilise this insight regarding their strengths or weaknesses to shape situations according to their strengths or ask a colleague or representative to fulfil this task to exploit the integrative potential (Sharma, Bottom, and Elfenbein, 2013, p. 321).

A second implication is enhancing training programmes to equip negotiators with appropriate tools. O'Connor and Adams (1999) found that training improves negotiation effectiveness, and other researchers also believe there is room to improve effectiveness (Chapman et al., 2017; Lewicki, 2014; Movius, 2008). For instance, Sharma et al. (2013) argued that 'we can be trained to expand our behavioural repertoire' (p. 322) and that 'developing greater confidence from in-class practice can increase self-efficacy' (p. 322). This opinion was echoed by Chapman et al. (2017), who concluded that 'personality, needs, and motivation testing of employees could indicate which skill set is most likely to be developed in specific employees' (p. 954). However, there are different arguments regarding which factors lead to better utilisation of integrative negotiation elements. Weingart et al. (1996) prescribed a set of various behavioural procedures to improve negotiation outcomes. Ade et al. (2018) proposed that negotiation training should include, in addition to the development of skills, the development of a mindset. Keeney (1996) proposed a methodological approach that enables negotiators to identify the integrative components of negotiation. This research indicates whether the focus of negotiator training should be on the integrative mindset, methodological negotiation preparation in the pre-negotiation phase, or a combination of both.

In conclusion, institutions require negotiators to allocate scarce resources and resolve conflicts of interest in a mutually agreeable way for both parties. If the

negotiation contains integrative elements, which is the case in labour negotiations, appropriate negotiators could help to recognise and exploit integrative elements. According to Lax and Sebenius (1986), recognising and exploiting integrative potential leads to (1) faster closings, (2) a higher probability of reaching a consensus, (3) a lower probability of one party rejecting a proposal, and (4) a stronger bond between the parties. Especially in labour negotiations, using integrative elements leads to mutually beneficial gains. Additive values—mutual gains—are created rather than just existing resources being distributed. In addition to financial and quantifiable satisfactions, such as remuneration concerning working hours, leave entitlement, and financial insurance benefits, there are also intangible satisfactions, such as trust, confidence, motivation, and the negotiation process itself (Walton and McKersie, 1991, p. 19–23). Because of these mutual gains, combined with the certainty that the negotiating parties will regularly meet again at the negotiating table, insights into integrative negotiation in labour negotiations have a crucial impact in the business context after presenting labour negotiations as the context of this thesis, which illustrated the context of labour negotiation as a specific category of business negotiation and considered the participating parties involved, the unique elements in labour negotiations, the problems in labour negotiations, and the impact of this thesis on labour negotiations, the methodology for this research is presented and discussed in the following chapter.

3. Methodology

‘The very notion of "theory" implies that the theory may be false’

(Faran and Wijnhoven, 2012, p. 496)

This chapter presents the methodology of this study in the context of labour negotiations and follows the suggestions of Saunders et al. (2019) for developing the research design for this thesis. First, this chapter introduces the researcher’s philosophical positioning as a methodological foundation of this study, highlighting Popper’s (1972) suggestions of testing a theory, including comparisons with other theories, and empirically applying the conclusions derived from them. Second, the methodological choice and research strategy are derived by discussing the main methods used in negotiation research concerning the purpose of this study to justify the selection of a method that allows for the best possible validity, reliability, and generalisability of this study’s conclusions about the data obtained. Third, to generate reproducible research results, the research design, sampling, data collection process, and data analysis process are presented. In addition to the suggestions of Saunders et al. (2019) for developing the research design, the ethical principles of the researcher and Sheffield Hallam University are presented, and how they were adhered to in this study is explained in section four. Finally, this chapter concludes with the experimental design and procedure, the sample, the data collected, and the pilot study’s findings to derive final adjustments for this study.

3.1 Research Philosophy and Research Approach

Faran and Wijnhoven (2012) noted: 'The very notion of "theory" implies that the theory may be false' (p. 496). Popper (1972) logically replaced the concepts of positivism, induction, and verification with deduction and falsification. He argued that the notion that science provides verified facts is fundamentally false, as it is logically impossible. Popper (1972) claimed:

The empirical basis of science has nothing 'absolute' about it. Science does not rest upon solid bedrock. The bold structure of its theories rises as if it were above a swamp. It is like building on erected piles. The piles are driven down from above into the swamp but not down to any natural or 'given' base, and if we stop driving the piles more profoundly, it is not because we have reached firm ground. We simply stop when we are satisfied that the piles are firm enough to carry the structure, at least for the time being. (Popper, 1972, p. 111)

According to Johnson and Duberley (2000), Popper 'emphasises that the results of scientific activity can never be certain – science can never produce definitive accounts of the way the world is' (p. 30). In addition, Faran and Wijnhoven (2012) noted that the critical principle Popper established 'is that a theory holds unless proved otherwise; hence the core of science is about refuting theories rather than confirming them' (p. 498).

This study addresses two theories regarding the extent to which personal inclinations and/or a methodological approach using the VFT technique of identifying objectives in the pre-negotiation phase influence performance in integrative business negotiations. The validity of these theories – the SIM by Ade et al. (2020) and the VFT technique of identifying objectives by Keeney (1994) – have not yet been evaluated in comparative research. Popper argued 'that one

cannot verify a theory, one can only disprove it' (Popper in Derksen, 2019, p. 450). Therefore, Popper (1972, p. 9) suggested the following four ways of testing a theory:

- (1) Examination of the internal consistency of a theory and logical comparison of conclusions.
- (2) Examination of a theory regarding its empirical or scientific character.
- (3) Making certain the theory offers scientific advances compared to others.
- (4) Testing a theory by empirically applying the conclusions derived from it.

Both theories were published and peer-reviewed. Accordingly, it was concluded that the (1) internal consistency of the theories, their conclusions, and their (2) scientific character are assumed. However, these theories have not yet been tested experimentally and compared to each other. Based on this research gap, Popper's recommendations (3) and (4) are applied to determine if and in what combination the theories generate superior outcomes in integrative business negotiations in the context of labour negotiations. A deductive method of empirical testing shall be applied to compare the opposing theories. This approach provides an original contribution to scientific knowledge in the tradition of critical rationalism.

In the following section, the mainly applied methods of business negotiation research are presented, discussed, and judged in light of the objective of this study to justify the selection of a methodology that allows for the best possible validity, reliability, and generalisability of this study's data statements.

Methodological Choice and Research Strategy

Agnadal et al. (2017) emphasised that ‘the importance of business negotiations in practice is reflected in the substantial research efforts undertaken by many great scholars publishing in various outlets’ (p. 487). With the aim of testing and comparing the two theories – SIM by Ade et al. (2020) and the VFT technique of identifying objectives by Keeney (1994) – in the business negotiation context and investigating whether and in what combination the theories best predict business negotiation performance, the selection of an appropriate methodology is essential to ensure validity, reliability, and generalisability. Sakai (2018) stated: ‘Reporting individual results effectively means that the research community can accumulate reproducible pieces of evidence and draw general conclusions from them’ (p. 81). However, Carnevale and De Dreu (2006) claimed that ‘there is no best way, no one best plan, no single orderly arrangement that best produces understanding about negotiation’ (p. 1). Furthermore, Carnevale and De Dreu (2006) guided the selection of an appropriate methodology:

It is not that a particular method or study is valid, per se; instead, it is the statements made about the data – the propositions – that have validity or not [and] such statements are best judged in the light of a study’s purpose. (Carnevale and De Dreu, 2006, p. 211)

Therefore, the following sections first briefly present the study’s purpose and subsequently examine whether a laboratory experiment or field research best fits to generate valid, reliable, and generalisable results considering the limitations of both methodologies.

This study aims to test and compare two theories in the negotiation context and investigate which theory best predicts negotiation performance. The first theory to be investigated – the SIM by Ade et al. (2020) – contains a 15-item

questionnaire administered using a six-point Likert scale ranging from 1 (disagree completely) to 6 (agree completely). All participants must be asked to fill in this questionnaire to provide data as an independent variable. The second theory to be investigated – the VFT technique of identifying objectives by Keeney (1994) – uses a set of questions in 10 dimensions to structure values as preliminary work for negotiations systematically. Some of the participants need to be equipped with this pre-negotiation methodology to provide data as a second independent variable (presence or absence of pre-negotiation preparation). As both theories claim to affect negotiation performance and ‘negotiation effectiveness is a construct that is inherently multidimensional’ (Sharma et al., 2018, p. 158), negotiation outcome is measured in multidimensional negotiation performance indicators consisting of individual economic outcomes, joint economic outcomes, SVI, and integrative negotiation behaviours as dependent variables. Accordingly, a prerequisite of this study is the complete transparency of both negotiating partners on quantifiable results. For measuring the social psychological outcomes, a 16-item questionnaire (SVI) needs to be filled in by all participants, subsequently to the negotiations as a dependent variable. Furthermore, negotiations need to be video recorded to measure the negotiators' integrative behaviours as a dependent variable.

After outlining the study's purpose, the following paragraphs present the predominant negotiation research methods used and conclude by examining their suitability for this study's purpose. Agnadal et al. (2017) examined business negotiation research published between 1996 and 2014 to provide a broad overview of methods used in negotiation studies published in peer-reviewed journals. Agnadal et al. (2017, p. 488) mentioned that experimental research

designs (60%) dominate surveys (26%), and a few other research designs (e.g. anthropological studies and case studies) complement the research field. Therefore, this thesis focuses on the mainly applied methodologies in the field of business negotiation research: Field research and laboratory experiments.

Field experiments occur in naturally occurring situations. Researchers manipulate one or more variables and evaluate the outcome of the negotiation and/or the behaviour of the negotiators (Pruitt, 2006, p. 193). Studying real-life negotiations enables researchers to examine negotiation behaviours (Yao, Ma and Zhang, 2018, p. 85). There are several valid arguments for applying field experiments in business negotiation research. For instance, Sharma et al. (2018) mentioned that field experiments 'provide a wider scope of analysis [compared to laboratory experiments] encompassing the various phases of workplace negotiations along with their dynamic interplay' (p. 146) and 'enable examination of more open systems features that treat negotiations as overlapping, recurrent, and recursive processes that involve the disposition of social, symbolic, and materialistic resources' (p. 147). Moreover, and this is likely an essential argument, 'laboratory-generated data about negotiations are at some remove from what occurs in the field' (Pruitt, 1981 in Matz, 2006, p. 23).

However, field experiments also have their limitations. Wall (2006) mentioned that 'cause and effect are difficult to tease out within field experiments. Results and conclusions are frequently contradictory' (p. 8). Matz (2006, in Carnevale and De Dreu, 2006) also mentioned that 'methods of gathering field data on any topic do not promise complete accuracy and we must be content with something less' (p. 23). Furthermore, Sharma et al. (2018) emphasised the limitation of accuracy, mentioning that rating scales can be subject to both unintentional bias and

intentional assessor bias (e.g. halo, leniency, and primacy). These biases could lead to evaluation errors in performance assessments of field experiments. In addition, severe limitations could occur in field trials when attempts are made to disguise the existence of the study (Pruitt, 2006, p. 199). Pruitt (2006) derived three necessities for researchers when conducting field experiments: '(1) Investigators must impose conditions that would plausibly be encountered in everyday life so as to avoid detection. (2) They are limited to producing the most innocuous of conditions that do not stress the participants because they cannot solicit informed consent. (3) The use of questionnaires to explore process [...] is quite limited' (p. 199).

The second mainly applied methodology in the field of business negotiation research is laboratory experiments, where 'students are the most common research subjects in simulation/experimental designs [...] being provided with a written scenario regarding the negotiation situation' (Agnadal et al., 2017, p. 488). As within field experiments, there are also several valid arguments for applying laboratory experiments in business negotiation research; Pruitt (2006) argued that

Laboratory experiments are far more common than field experiments in research on social conflict for two primary reasons: greater control and a more comprehensive range of available manipulations and measures. (Pruitt, 2006, p. 199)

In contrast to field experiments, greater control can be exercised over the elements of behaviour. More precise manipulations can be created, and the variables can be kept constant and can allow a reduction of confounding and alternative interpretations of the results (Pruitt, 2006, p. 199). Pruitt (2006)

emphasised that 'holding variables constant also reduces random error, making it easier to reach statistical significance and discover subtle effects with fewer participants' (p. 199). This control may also impact the unplanned withdrawal of participants from the study before the study is completed, as this is a larger problem in field experiments (Pruitt, 2006, p. 199). The second argument for conducting laboratory experiments is the wider range of available manipulations and measures. Pruitt (2006) noted that 'investigators are king in the laboratory and, within ethical limits, can do almost anything they want' (p. 199). A third argument for conducting laboratory experiments is that it is programmatic. Carnevale and De Dreu (2006) argued that experiments can be performed 'in a series, with each experiment in the series building on a prior experiment [...]. This allows the researcher to narrow the set of theoretical possibilities that might explain an effect' (p. 211). A final argument for laboratory experiments is that this methodology offers a relatively safe place where manipulations on participants or the setting are less likely to produce harm (Carnevale and De Dreu, 2006, pp. 221-222). Sharma et al. (2018) summarised:

Laboratory research yields invaluable opportunities for controlled, precise, direct observations of behaviour that can be incredibly difficult, if not impossible, to obtain in the field. (Sharma et al., 2018, p. 157)

On the other hand, greater control, precision, and a more comprehensive range of available manipulations and measures in laboratory experiments also take their toll on the results of laboratory experiments. Sharma et al. (2018, p. 146) argued that laboratory studies could hide crucial aspects of business negotiation processes, as the negotiations happen within organisational structures. Moreover, Sharma et al. (2018, p. 146) suggested that most negotiation studies are conducted with MBA classes in which negotiation is associated with

competitive behaviour. Another significant limitation of the laboratory experiments methodology is that 'it is unclear [...] whether the findings are valid for real-world negotiations' (Yao, Ma and Zhang, 2018, p. 70). Bendersky and McGinn (2010 in Sharma et al., 2018, p. 147) argued that 'laboratory experiments typically examine closed systems that treat the process as discrete events, separable from effects on the broader organisation that take place between parties who have established independent preferences' (p. 147). These 'closed systems' may also obscure the impact on personality. Sharma et al. (2018) mentioned that 'role-play simulations create [...] a "strong situation" in which individual differences have less latitude for expression [and] traits may exhibit greater influence on negotiation behaviour in workplace contexts where situations can be more flexible' (p. 147).

Each research methodology in the business negotiation context has strengths and weaknesses. Field studies provide 'contextual realism at the sacrifice of control and precision of measurement', whereas 'laboratory experiments contain superior precision of measurement and control of behaviour variables, but they are low in contextual generalisation' (Sharma et al., 2018, p. 159). Contrary to the concluding opinion of Sharma et al. (2018), some studies have already been conducted on the generalisability of the results from laboratory experiments. In two longitudinal studies, Bluen and Jubiler (1990) investigated stress associated with labour-management negotiations. Changes in blood pressure and anxiety were measured in a simulated negotiation experiment (Study 1). The participation in a vivo labour-management negotiation (Study 2) indicated 'consistent results of the two studies [that] enhance the credibility of generalising from a laboratory to field settings' (Bluen and Jubiler-Lurie, 1990, p. 115). Other research indicates

that experimental findings of first offers and BATNAs (Yao, Ma and Zhang, 2018, p. 84) and the conciliatory effect of the expectation of arbitration (Pruitt, 2006, p. 207) can be generalised to natural settings. According to Pruitt (2006), starting with a low-cost laboratory study and testing the findings in a real-world setting is valid. Carnevale and De Dreu (2006) summarised: 'It is often difficult to generalise results from laboratory settings to natural settings, a problem shared with field research since natural settings differ from one another' (p. 222).

As this study aims to test and compare two theories in the business negotiation context and investigate which theory best predicts negotiation performance, the methodology of a laboratory experiment is selected. This study requires the disclosure of negotiation results (individual economic outcome, joint economic outcome, and the SVI) to compare the theories and precisely measure which theory best predicts negotiation performance. Furthermore, negotiations need to be video recorded to measure the negotiators' integrative behaviours as a dependent variable. The precision, control over the subject of negotiation, and possible negotiation outcomes, as well as the comparability of negotiation outcomes between experimental and control groups, lead to the justified choice of a quantitative laboratory experiment as the methodological choice and research strategy for this thesis.

3.2 Research Design

To generate reproducible research results, this section first presents the design of the laboratory experiment, including the negotiation task, the procedure, and the technical implementation of this experiment. Subsequently, the sampling strategy, the data collection process, and the data analysis process are presented.

3.2.1 Laboratory Experiment

4.3.1.1 Negotiation Task

Throughout the history of negotiation research, complex tasks have been developed to study business negotiations in the laboratory, and a 'central element of any laboratory study of negotiation and social conflict is the task [as it presents] the reward structure, the incentives, the set of alternatives that people choose among, and the outcomes that are the possible results of these choices' (Carnevale and Dr Dreu, 2006, p. 213). The central element of this study is a two-party, multi-issue quantifiable negotiation case. In this case, dyads are negotiating a labour contract. Participants are given either the role of a labour representative or the role of a management representative. Labour and management representatives negotiate the following five issues:

- i. Salary (in EUR)
- ii. Vacation (in weeks)
- iii. Annual raise of salary (in %)
- iv. Insurance rate (in %)
- v. Union strike (number of strikes)

Depending on which negotiation role the participants have been assigned to (labour or management representative), participants receive written negotiation instructions, including a short profile of the negotiating partners (labour and management representatives) and the negotiation issue cards, which represent the set of alternatives and the outcomes that may result from these decisions. Participants are not informed of the rewards and incentive structures made to their counterparts. Detailed instructions are displayed in Appendix 3 (for labour representatives) and Appendix 4 (for management representatives).

This negotiation task offers the opportunity for each party to achieve what their individual role (labour or management representative) desires in their most valued issue and to compromise on their least valued issue in an additive scoring model. An additive scoring model (cf. Raiffa, 1982, pp. 149-150), where a specific score is assigned to each outcome level of each issue, enables the comparability of negotiation results across dyads and is recommended for experiments in the context of labour negotiations (Balke, 1973). These rewards and incentive structures and the set of alternatives to reach an outcome are illustrated in the issue cards below. Table 4 defines the set of alternatives and possible outcomes for a labour representative, and Table 5 defines the set of alternatives and possible outcomes for a management representative. The first number

represents the absolute set of alternatives. The second number (in parentheses) represents the specific score assigned to each outcome level of each issue.

Labour Issue Card

| Salary | Vacation | Annual raise in salary | Insurance | Union strike(s) |
|--------------|----------------|------------------------|-----------|-----------------|
| 70,000 (400) | 3 weeks (120) | 15% (240) | 100% (60) | 0 (00) |
| 65,000 (300) | 2.5 weeks (90) | 12% (180) | 80% (45) | 1 (-25) |
| 60,000 (200) | 2 weeks (60) | 9% (120) | 60% (30) | 2 (-50) |
| 55,000 (100) | 1.5 weeks (30) | 6% (60) | 40% (15) | 3 (-75) |
| 50,000 (00) | 1 week (00) | 3% (00) | 20% (00) | 4 (-100) |

Table 3: Issue card for labour adapted from De Dreu and Carnevale (2006, p. 217)

Management Issue Card

| Salary | Vacation | Annual raise in salary | Insurance | Union strike(s) |
|-------------|----------------|------------------------|-----------|-----------------|
| 70,000 (00) | 3 weeks (0) | 15% (00) | 100% (00) | 4 (-200) |
| 65,000 (15) | 2.5 weeks (30) | 12% (60) | 80% (100) | 3 (-150) |
| 60,000 (30) | 2 weeks (60) | 9% (120) | 60% (200) | 2 (-100) |
| 55,000 (45) | 1.5 weeks (90) | 6% (180) | 40% (300) | 1 (-50) |
| 50,000 (60) | 1 week (120) | 3% (240) | 20% (400) | 0 (00) |

Table 4: Issue card for management adapted from De Dreu and Carnevale (2006, p. 217)

Both negotiating parties are given the task of scoring at least 400 points.

As indicated in the issue cards presented above, participants receive symmetric information on the absolute set of alternatives and asymmetric information on the specific score assigned to each outcome level of the issues. Sharma et al. (2013) characterised the advantage of this kind of laboratory experiment by arguing that ‘although these are simplified representations of the kinds of tasks that confront managers [...], they attempt to model more of the real-world features than do simple matrix games. In doing so, participants and their partners have asymmetric information about payoffs and alternatives, the flexibility to

communicate, and the ability to set the terms if they choose to reach an agreement (p. 297).

As most negotiations have distributive and integrative negotiation elements (Walton and McKersie, 1991), this simulated negotiation task also combines both elements to avoid the theoretical purely integrative case and create a mixed-motive negotiation task. This type of task has been used for classroom teaching and experimentally by various negotiation researchers (Giacomantonio et al., 2010, pp. 826-827; De Dreu and Carnevale, 2006, p. 215; Pruitt and Lewis, 1975; Balke, 1973), as 'many studies emphasise the key role of understanding the interests of the opponent in achieving better negotiation performance' (Herbst and Schwarz, 2011, p. 150). The issues of salary and insurance are compatible, where preference structures offer integrative individual and joint economic outcomes. While labour can get 0 to +400 points in the issue 'salary', management scores 0 to +60 points. The outcome structure is reversed in the 'insurance' issue. Here, labour can only score 0 to +60 points, whereas management can score 0 to +400 points. Accordingly, the parties should recognise that the issues 'salary' and 'insurance' are compatible interests, where labour should receive a high score on 'salary', and management should receive a high score on 'insurance'. Referring to the theory of cooperation and competition, the relationship between the issues of 'salary' and 'insurance' is positive interdependence, where the goals are linked so that the probability of one person achieving the goal is positively correlated with the probability of the other person achieving the goal. Consequently, by adding the two scores of 'salary' and 'insurance', the joint economic outcome can range from +120 to +800.

The issues of 'vacations' and 'annual rise of salary' are distributive issues where their preferences are incompatible. Referring to the theory of cooperation and competition, the relationship between the issues of 'vacations' and 'annual rise of salary' is a negative interdependence, where the probability of goal achievement of one person is negatively correlated with the probability of goal achievement of the other person. Both labour and management can achieve a score on the issue 'vacation' from 0 to +120 and on the issue 'annual raise of salary' from 0 to +240. The interests of both parties for these issues are equal, so this is a distributive bargaining of the issues of 'vacation' and 'annual raise of salary'. Consequently, if the two values are added, the joint economic outcome is always +120 points for the issue 'vacation' and +240 points for the issue 'annual raise of salary'. Therefore, this task satisfies both types of potential gains that the fixed-pie assumption could reduce: Compatibility gains and log-rolling gains, as identified by Bazerman et al. (1999, pp. 1283-1284).

The issue of 'union strike(s)' is also compatible, as a strike leads to a pay-off reduction for both parties (cf. Walton and McKersie, 1991). Therefore, both parties should try to avoid a strike that can only be initiated by the labour representative. Hieser (1970, p. 59) argued that '[...] actual strike action does not need to be invoked: it will be sufficient that the power be there and calculable'. However, it is the possibility of a strike that often makes negotiators more responsible in pre-strike negotiations (Raiffa, 1982), as a strike impacts both the labour's side and the management's side, with the value of the strike costs being assessed individually (Walton and McKersie, 1991, pp. 31-32). Therefore, the outcome reduction is considered more expensive to the management (0 to -200 points) than to the labour side (0 to -100 points). However, as Walton and

McKersie (1991) argued, strike costs, a 'variation of the concept of utilities, is employed in exploring the influence of the various costs associated with the strike action itself' (p. 12). Hence, it is possible to lose something by striking and convincing the partner to give up a larger share in distributive bargaining – a so-called 'strike gain'.

Compatibility gains result when a negotiator perceives that their preferred outcome on a particular issue contrasts with their opponent's. Errors in priority judgments occur when the negotiator mistakenly believes that the issues they consider most important are the same as those the party considers essential. Bazerman et al. (1999) concluded that fixed-pie perception includes inter- and intra-issue errors. Therefore, accurately identifying an opponent's preference structure requires judgments across and within issues (Bazerman et al. 1999, p. 1282).

In total, this simulated negotiation contains 3,125 solutions and 287 solutions that are available as a zone of possible agreements. Excluding the solutions that lead to an insufficient solution for at least one of the negotiating parties (<400 points), this task has a potential of a maximum of 760 points as an individual economic outcome. The joint economic outcome is at least 820 points and a maximum of 1,160 points. However, the maximum joint economic outcome of 1,160 points can only be realised if the individual preferences in the issues 'salary' and 'insurance' are recognised. Should the participants reach a compromise in the middle of the point scale on each point, a joint economic outcome of 820 points (or 520 points if the strike options are fully used) will result. Accordingly, this negotiation offers an integrative potential of 340 points. As the individuals do not receive their counterpart's issued card and are informed not to exchange these issued cards

during the negotiation, participants are unaware of the integrative potential. Through negotiation and information exchange, participants must identify opportunities for compromise, a high joint economic outcome, and a high individual economic outcome.

As highlighted in the previous chapter, the 'relationship between the parties to labour negotiations is usually unique, continuing, and long term (Walton and McKersie, 1991, p. 3). Due to the uniqueness and ongoing and long-term relationship between labour and management representatives, the socio-psychological attitudes of the respective actors are relevant. Therefore, participants are informed that the attitudinal structuring (cf. Walton and McKersie, 1991) of their counterparts is critical. However, participants are not informed that there will be an additional questionnaire to measure the SVI by their counterparts after the negotiation occurs.

As described in Chapter 2, success in integrative negotiations can be defined by the criteria of individual economic outcome, joint economic outcome, and the SVI. This integrative negotiation task offers the potential for individual and joint economic outcomes using symmetric negotiation issues, including symmetric and asymmetric reward structures displayed in the individual issue cards in an additive scoring model. Symmetric reward structures form the base for distributive bargaining, and asymmetric reward structures form the base for integrative negotiation. The assessment of the negotiating partner (SVI) completes this thesis's multifactor model of negotiation performance.

4.3.1.2 Procedure and Data Collection

A ‘two-group, before-after design’ laboratory experiment is employed for this study. This type of laboratory experiment design involves collecting pre-test and post-test data on individuals assigned to a control or experimental group (Zientek, Nimon and Hammack-Brown, 2016, p. 638). The employed research methodology is illustrated in the table below.

| | t ₀ | t ₁ | t ₂ | t ₃ | t ₄ |
|----|----------------|----------------|----------------|----------------|----------------|
| EG | R | O ₁ | X | O ₂ | O ₃ |
| CG | R | O ₁ | | O ₂ | O ₃ |

Table 5: 'Two groups, before-after design' Laboratory Experiment (devised by the author)

EG = Experimental group; CG = Control group; R = Random assignment; O₁ = Observation: Scale for integrative mindset (SIM); X = Treatment: A value-focused thinking technique of identifying objectives (experimental group only); O₂ = Observation: Integrative negotiation behaviour; O₃ = Observation: Negotiation outcome (individual economic outcome, joint economic outcome, subjective value inventory)

Liu, Maxwell and Steinley (2020) noted that in their two-group, before-after design laboratory experiment, ‘participants are randomised into different groups at the pre-test so that any post-test between-groups differences can be attributed to the experimental manipulation or the group membership rather than to pre-existing differences among groups’ (p. 72). Participants are randomly assigned to either the experimental or control group and pre-tested on their SIM scores as an independent variable. The participants of the experimental group receive the treatment (experimental manipulation). The integrative negotiation behaviours reflect the post-test within this study as a dependent variable (cf. Weingart, 1996)

and the negotiation performance indicators of individual economic outcome, joint economic outcome, and the SVI as dependent variables. The five individual steps (t_0 – t_4) involved in this experiment described in Table 6 are presented in the following paragraphs.

Random assignment (t_0): All participants are randomly assigned to either take part in the experimental group (exposed to the experimental treatment of the VFT technique) or the control group (participants not exposed to the experimental treatment). In addition, participants are assigned to a negotiating role – either representing labour or representing management. The following figure presents the assignment of the participants into (1) an experimental group or control group and into (2) a negotiation role as a labour representative or management representative. Moreover, at the beginning of the experiment, personal data are collected: Name, surname, age (in years), gender (m/f/d), and educational background ('I hold a degree in business administration or equivalent' and 'I have a different educational background'). These data serve as proof of the sample structure.

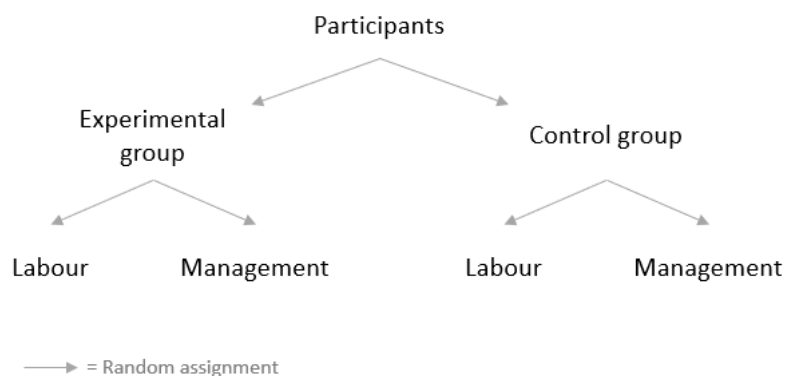


Figure 10: Random assignment procedure (devised by the author)

Observation of SIM scores (t₁): Ade et al. (2018, p. 3) claimed that some negotiators already have an integrative mindset, which helps to overcome the fixed-pie perception, use their learned abilities in the best interest of the parties, and increase the benefits during integrative negotiation. It is argued that the three orientations of collaboration, curiosity, and creativity, which complement each other, form the integrative mindset. All participants were asked to individually evaluate the 15 statements of the SIM using a six-point Likert scale ranging from 1 (disagree completely) to 6 (agree completely). This questionnaire is illustrated in Appendix 10.

Treatment using the VFT technique – experimental group only (t₂): This thesis applies the VFT technique of identifying objectives, as recommended in Keeney (1996, p. 543). In addition to the written instructions for the negotiation (cf. previous section), the experimental group participants were equipped with the questions presented by Keeney (1994) as pre-negotiation preparation. For the systematic qualitative structuring of values, Keeney (1992, p. 57; 1994, p. 34) introduced a question-based VFT technique for identifying objectives, including a set of 22 questions in 10 dimensions. As in Urtiga and Morais (2015), VFT is not used in its full form in this study, as this study considers the VFT methodology in a utility-driven (or resource-driven) conflict rather than a value-driven one.²

² Schuster et al. (2020) differentiate between these two types of conflict by arguing that ‘in value-driven negotiations, subjective evaluations are especially relevant because the stakes are not only economic but also personal’ (p. 2) and ‘whereas parties in value conflicts negotiate the rightness and wrongness of their identities, parties in resource conflicts negotiate the distribution of economic resources’ (p. 2).

Adjustments are made to the questions to adapt the questionnaire to this negotiation task. Keeney's (1992, p. 57; 1994, p. 34) defined 10 dimensions that remained the same. The adaptations are presented in Appendix 11. Participants of the experimental group were asked to fully answer the questionnaire by filling in free text fields. Keeney (1994) noted that this technique might lead to 'a redundant list for identifying objectives, but redundancy is not a shortcoming in this endeavour. It is much easier to recognise redundant objectives when explicitly listed than to identify missing objectives' (p. 34).

Observation of the negotiation process (t 3): The relationship between the negotiation behaviour of aiming for high-quality and quantitatively complete data and negotiation outcomes, especially integrative negotiation behaviour and integrative outcome, has been examined by Weingart et al. (1996). The behaviours of (a) making multi-issue offers, (b) providing information about priorities across issues, (c) asking questions about priorities, (d) suggesting packaging, and (e) suggesting delayed reciprocity are positively correlated with negotiation outcomes (Weingart et al., 1996, p. 1214). Gathering high-quality and quantitatively complete data represents a behavioural approach to optimising integrative negotiation outcomes. In this thesis, the five behavioural recommendations by Weingart et al. (1996) are considered dependent variables to influence the individual economic outcome and joint economic outcome of the negotiation. The participants' negotiations are recorded in audio and video. These audio and video recordings are evaluated subsequently to the negotiations for negotiation behaviour in terms of the behaviours of (a) making multi-issue offers, (b) providing information about priorities across issues, (c) asking questions about priorities, (d) suggesting packaging, and (e) suggesting delayed reciprocity.

Observation of the negotiation outcome (t₄): Immediately after the negotiation, all participants were asked to document their negotiation results in the five issues (salary, vacation, annual rise of salary, insurance, and strike(s) used) as a basis for individual and joint economic outcomes in the additive scoring model.

Subsequent to the documentation of economic results, participants were asked about their subjective outcomes using a post-negotiation questionnaire. For this purpose, the 16-item SVI describes 'a comprehensive framework of social psychological outcomes' (Curhan et al., 2006, p. 506) to measure subjective value in negotiations. The predictive validity results are noteworthy, 'demonstrating that greater subjective value [SV] following a negotiation predicts greater subsequent willingness to engage in cooperative interactions with the same negotiation counterpart' (Curhan et al., 2006, p. 506). Additionally, Curhan et al. (2006, p. 506) found that negotiators with higher SVI scores were more willing to work with their respective negotiating partners in a team. The questionnaire illustrated in Appendix 7 measures subjective value in negotiations within four factors: (1) 'Feelings About the Instrumental Outcome', (2) 'Feelings About the Self', (3) 'Feelings About the Negotiation Process', and (4) 'Feelings About the Relationship'. Due to the different answer choices of the scale – also within the four factors – each question of the subjective values was asked individually.

After the negotiation task and the procedure have been presented, the technical implementation of this experiment is described in the following section.

4.3.1.3 Technical Implementation

As a result of the COVID-19 pandemic and the resulting limited opportunities for classroom events, this study was conducted online. Participants were invited via e-mail. Experiments were conducted using an internet-based video conferencing application (Microsoft Teams) and documented using an online survey application (SurveyMonkey).

3.2.2 Sampling

Since this study involves preparing and conducting a business negotiation in a labour–management negotiation context, the sample should be chosen to reflect this scenario. Participants are randomly assigned to either a control or experimental group and to either a labour or management representative role. Accordingly, the sample selection must ensure that the independent variables (high/low SIM and presence/absence of treatment) and dependent variables (individual economic outcome, joint economic outcome, SVI, and integrative negotiation behaviours) are not distorted by other characteristics of the participants. Therefore, educational background and experience must be considered to avoid unequal dyads. Separation by gender was not considered for this study. The following paragraphs justify these decisions.

Most empirical research on negotiation is based on student samples, and ‘the use of students as subjects has been standard practice in negotiation research’ (Herbst and Schwarz, 2011, p. 148). However, much controversy exists about the

general applicability of findings derived from research on student samples. Some researchers justify using students for studies, arguing that all people negotiate every day, whether to settle an interpersonal dispute or buy things at the flea market (Herbst and Schwarz, 2011, p. 148). Other researchers are sceptical about the results of the studies conducted with students (Pullins et al., 2000; Weingart, Prietula and Hyder, 1996), as students have little or no experience in professional negotiation, and the conclusion cannot be generalised to professionals. According to a study including samples of untrained students, students with some background in negotiation experience, and professional negotiators by Herbst and Schwarz (2011), 'students with some background of negotiation experience [...] outperform untrained student negotiators but are not outperformed by professional negotiators in terms of achieved single gains. Moreover, the average joint economic outcomes of trained students and professionals were significantly higher than those of novice student negotiators (p. 163). This study echoes the findings of Herbst and Schwarz (2011). Therefore, as a sampling strategy of this thesis and for generalisability, undergraduate students were not included in the sampling strategy. This sampling strategy considered the participants' educational background and professional experience to reduce inequalities within the dyads. Therefore, the sample included participants holding a degree in business administration to represent labour negotiations and ensure the comparability of the dyads and generalisability (cf. Herbst and Schwarz, 2011).

Separation by gender was not considered for this study. Rubin and Brown (1975) and Thompson (1990) reviewed the literature of studies to determine whether gender acts as a predictor of negotiation outcomes and reported several invalid

and inconsistent results (Bowles et al., 2005, p. 951). As with the discussion of sampling strategies that address negotiators' experience, there is still disagreement among negotiation researchers about the links between gender and negotiation outcomes and behaviour, and research continues to yield contradictory results (see Mazei, Zerres and Hüffmeier, 2021; Shan et al., 2019; Leibbrandt and List, 2015; Marks and Harold, 2011; Babcock and Laschever, 2003; Olekalns and Smith, 2000; Stuhlmacher and Walters, 1999). For instance, some research shows that women are more likely to outperform men in negotiations (Shan et al., 2019, p. 651). In contrast to Shan et al. (2019), other research indicates that men negotiate better outcomes than women (Stuhlmacher and Walters, 1999, p. 52; Marks and Harold, 2011, p. 387). According to Mazei, Zerres and Hüffmeier (2021), men are expected 'to limit the exchange of information about their interests and priorities' (p. 116), and they 'gather less information that could allow them to revise the (erroneous) assumption that the parties' interests cannot be integrated' (p. 116).

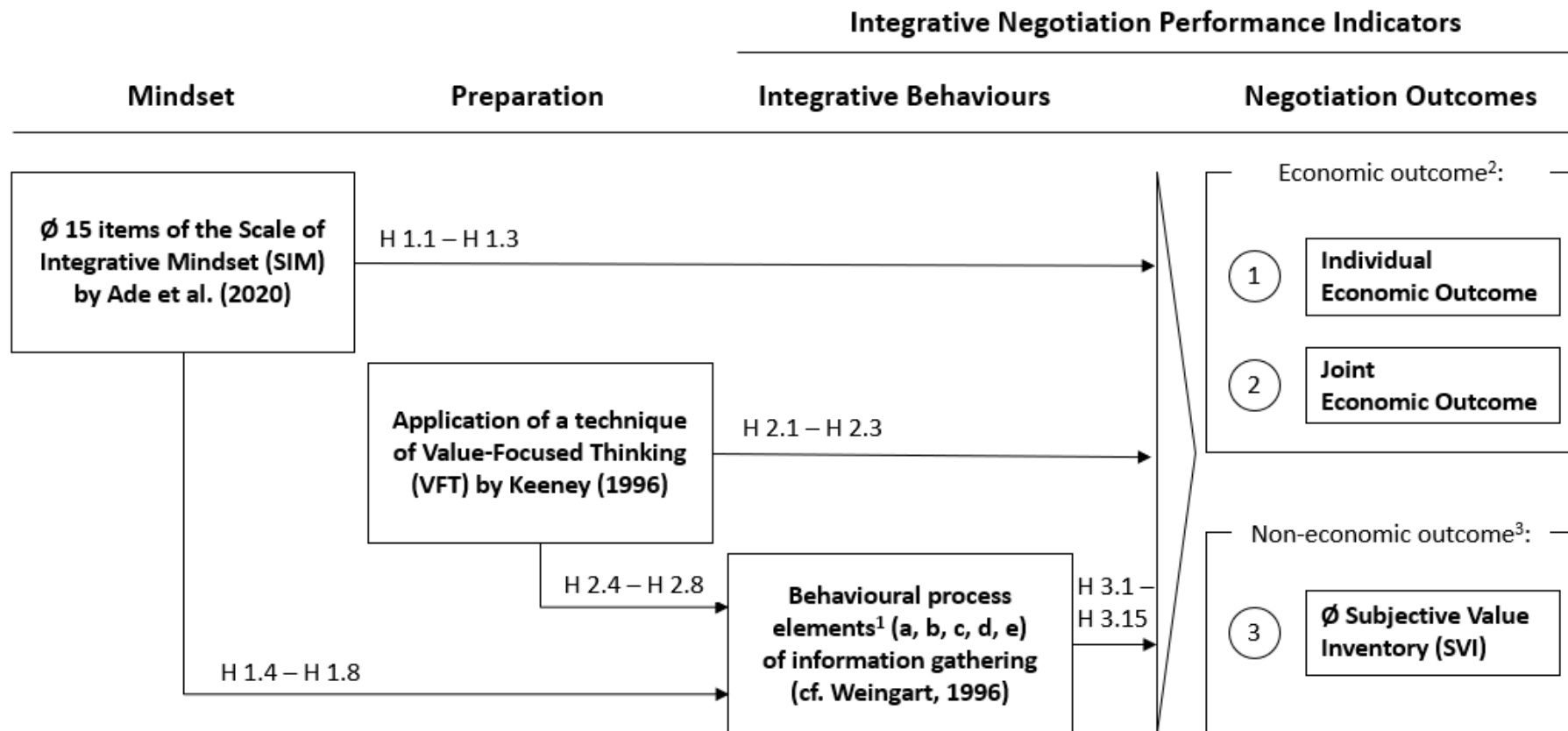
These assumptions would conclude that women would outperform men according to the integrative negotiation behaviours of providing information about priorities across issues and asking questions about priorities (see Weingart, 1996). These assumptions would also lead to male negotiators suffering from the fixed-pie assumption more frequently than female negotiators. Babcock and Laschever (2003) found that women are 'other-oriented', and men are 'self-oriented', resulting in women highlighting relationships and men undervaluing relationships. However, Leibbrandt and List (2015) found that when explicitly mentioning 'the possibility that wages are negotiable, [...] differences disappear completely' (pp. 2016-2017). Olekalns and Smith (2000) also found neglected

differences in sex in a study on the relationships among negotiators' motivational orientations, strategy choices, and outcomes and had a mixture of same- and mixed-sex dyads. This study and the sampling strategy follow the results of Leibbrandt and List (2016) and Olekalns and Smith (2000) and do not differentiate between participants according to gender. Furthermore, it would be a limitation for generalisability if women and men competed in same-sex negotiations, as this does not correspond to the practice of labour negotiations. Accordingly, it is less relevant for the sampling strategy whether a similar number of women and men participate in the experiment. Instead, it is more important that the possibility of negotiation as such is announced to reduce gender differences. Therefore, this information is included in the written instructions for the participants (cf. Appendix 8 and 9).

To test and compare the two theories – SIM and the VFT technique of identifying objectives – in the labour negotiation context and investigate if and in what combination the theories best predict negotiation performance, two conditions (experimental and control group) are examined. The aimed sample size, as outlined in the research proposal, included a number meeting a threshold of 30 dyads per condition to meet the average sample size of comparable negotiation experiments (see Bluen and Jubiler-Lurie [1990, p. 105] using 24 dyads per condition; Kern et al. [2020, p. 147] using 32 dyads per condition; and Olekalns and Smith [2003, p. 105] using 34 dyads per condition). To avoid inequalities in the dyads, the participants to be included should be graduate students in business administration.

3.2.3 Data Analysis

This section describes the data analysis process. First, the process for analysing independent variables, including identification number, age, gender, professional experience, and the score on the scale for integrative mindset, is presented. The second section illustrates the process for analysing the dependent variables, including Pareto efficiency of individual economic outcome, Pareto efficiency of joint economic outcome, subjective value inventory, and integrative negotiation behaviours. For independent and dependent variables, analyses for descriptive statistics will be presented. The subsequent sections present the analyses of the predictors on the dependent variables, including Pearson's correlation coefficient, as well as linear and multiple regression analyses to determine if the predictors have a significant effect on the dependent variables. The following figures illustrate the hypothesised effects between those as mentioned earlier independent and dependent variables.



- 1 | Behavioural outcomes measures by presence / absence
- 2 | Economic outcomes measured by an additive scoring model
- 3 | Non-economic outcomes measured by SVI of the counterpart as arithmetic mean on a 7-point Likert scale

Figure 11: Hypothesised effects of independent on dependent variables (1/2; devised by the author)

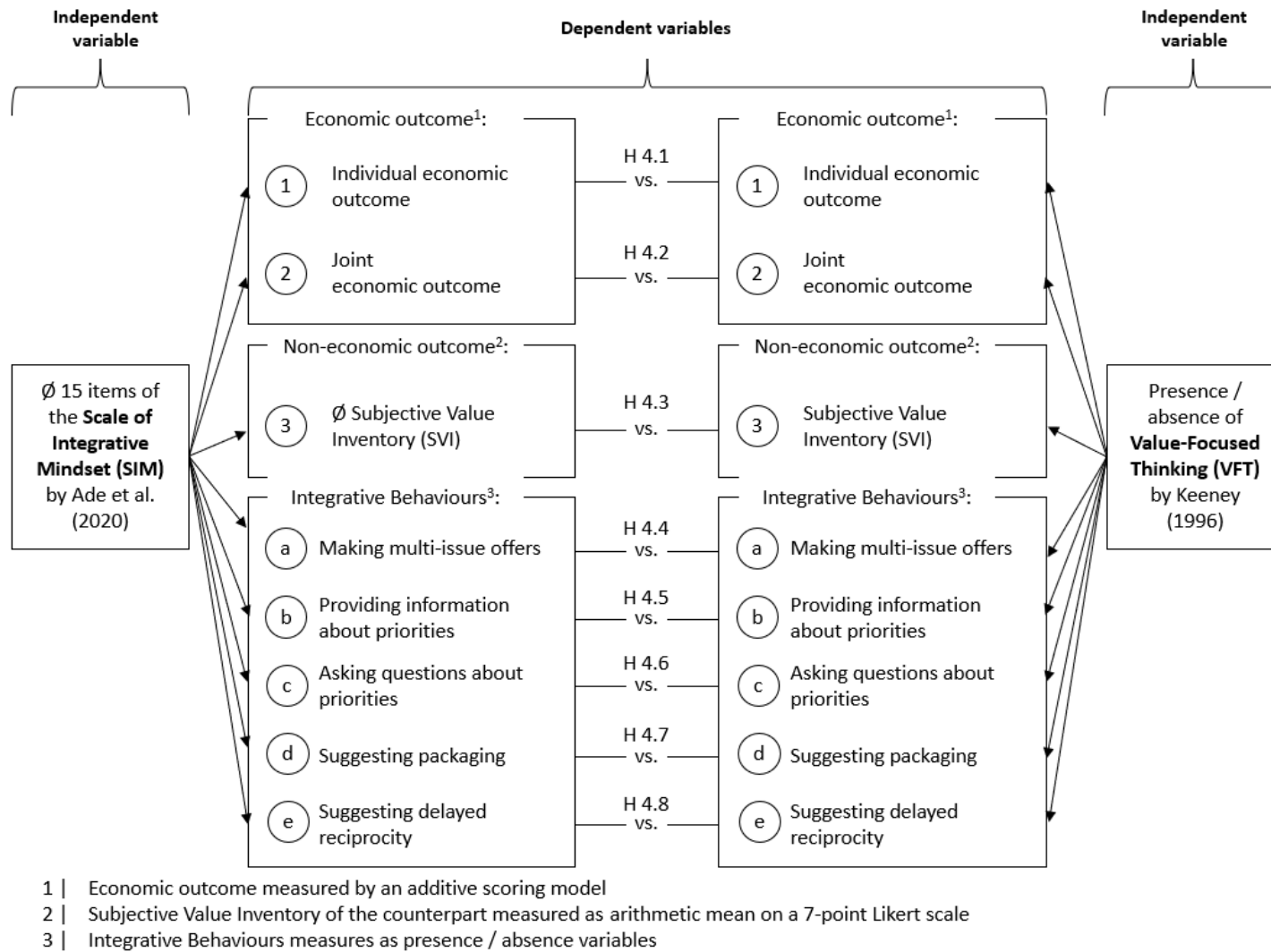


Figure 12: Hypothesised effects of independent on dependent variables (2/2; devised by the author)

4.3.3.1 Independent Variables

This section presents the data analysis of independent variables: Coding of personal data, individual SIM scores, and presence versus absence of the treatment of the VFT technique of identifying objectives.

Personal data: The uniqueness of the data records is based on the participants' personal data (name, surname, age, gender) combined with an automatically generated unique 11-digit identifying number to ensure data protection of personal data. All data analyses based on the data collection processes are assigned to the 11-digit identifying number. Appendix 13 presents the connections of the personal data. The arithmetic means and standard deviation (SD) of the age structure of the sample, as well as the gender distribution (m/f/d) of the sample, were calculated. The answer to 'I hold a degree in business administration or equivalent' to confirm a comparative educational background was mandatory for a data set to be integrated into further data analysis. All incomplete records and mismatched educational backgrounds were reported separately.

SIM scores: SIM scores were calculated using the cross-category arithmetic mean of the 15 individual factors based on a six-point Likert scale and assigned to the personal data records. An additional analysis of the individual factors of the SIM (curiosity, creativity, and collaboration) was performed. Incomplete records were not integrated into the analysis and were reported separately. Appendix 14 presents the calculations of the individual SIM scores. The order of the questions remains the same, as Ade et al. (2020) suggested. Moreover, Cronbach's Alpha (α) was calculated to assess the reliability of the questionnaire (cf. Streiner,

2003). Ade et al. (2020) already validated the scale for integrative mindset. Therefore, a repeated validity analysis can be dispensed with. Last, the frequency of the SIM scores is analysed according to (Graham, 1978).

Treatment: After receiving the negotiation task, experimental group participants were given an additional task (treatment) to prepare for the negotiation. The treatment consists of answering a questionnaire in preparation for the negotiation. The questionnaire contains 20 questions in 10 dimensions and free text fields for answering the questions. This thesis evaluated the presence or absence of the treatment, as in Weingart et al. (1996). The treatment was determined as a dichotomous independent variable (present = 2; absent = 1). Incomplete records were not integrated into the analysis and were reported separately.

4.3.3.2 Dependent Variables

This section presents the data analysis of the independent variables: Joint economic outcome, individual economic outcome, SVI, and integrative negotiation behaviour.

Joint Economic Outcome: The basic concept is that the utility function of a trade-off should consider any change that leads to an improvement of one and simultaneously not to the disadvantage of the other (Neves and Nakhai, 2011, p.

85). Therefore, when no solution improves utility without harming someone else, the solution is called 'Pareto-optimal'. Based on the Pareto efficiency score for negotiation tasks defined by Tripp and Sondak (1992, p. 291) and used in Weingart et al. (1996), the PJEO was calculated as follows:

$$PJEO = 100 * \frac{(Nw - Ns)}{(Nb - Ns) + (Nw - Ns)}$$

'where Nb is the number of solutions that were better than the agreed-upon solution (i.e. worth more points) for at least one party but not worse (i.e., worth fewer points) for the other party; Nw is the number of solutions that were worse than the agreed-upon solution for at least one party; and Ns is the number of solutions with the same individual outcome levels as the agreed-upon solution' (p. 1209). For example, a perfectly integrative solution receives a Pareto efficiency score of 100%, while an impasse solution receives a value of 0%. Overall, 287 solutions are available as a zone of possible agreements. According to Tripp and Sondak (1992, p. 291), the assessment of Pareto efficiency has the advantage, as this calculation does not 'inflate the apparent quality of an agreement', as 'not all areas under the Pareto frontier contain potential agreements' (p. 289). Furthermore, this calculation methodology of joint economic outcome considers the task's difficulty and supports researchers in comparing research. Last, the frequency of the PIEO is analysed according to (Graham, 1978).

Individual Economic Outcome: For the individual economic outcome, a similar calculation was used. Based on Tripp and Sondak (1992, p. 291) and adapted from Weingart et al. (1996), the PIEO was calculated as follows:

$$\text{PIEO} = 100 * \frac{(N_w - N_s)}{(N_b - N_s) + (N_w - N_s)}$$

N_b is the number of solutions worth more points for the party, N_w is the number of solutions worth fewer points for the party, and N_s is the number of solutions with the same individual outcome levels as the agreed-upon solution. For example, a perfectly distributive solution receives a Pareto efficiency score of 100%, while an impasse solution receives (no deal or individual economic outcome < 400) a value of 0%. Overall, 1,329 solutions are available, whereas 287 are available as zones of possible agreements. Last, the frequency of the PJEO is analysed according to (Graham, 1978).

Subjective value inventory: The SVI is a supplement to the economic values of a negotiation. It incorporates socio-psychological, subjective factors into the study of negotiation outcomes. The SVI questionnaire measures subjective values in negotiations within four factors: (1) 'Feelings About the Instrumental Outcome', (2) 'Feelings About the Self', (3) 'Feelings About the Negotiation Process', and (4) 'Feelings About the Relationship' on a seven-point Likert scale. Therefore, the average means and SDs of the four factors as a 'Global score' (cf. Curhan et al., 2006, p. 512), as well as the average means and SDs of the total SVI score, were calculated by averaging the four subscale scores. As recommended by Curhan et al. (2006, p. 512), questions number 3 'Did you feel

like you forfeited or "lost" in this negotiation' and number 5 'Did you "lose face" (i.e. damage your sense of pride) in the negotiation?' are reverse scored (i.e. a score of 2 becomes 6, a score of 1 becomes 7). The order of the questions remains the same, as Curhan et al. (2006) suggested. Last, the frequency of the SVI is analysed according to (Graham, 1978).

Integrative negotiation behaviour: The presence of (a) making multi-issue offers, (b) providing information about priorities across issues, (c) asking questions about priorities, (d) suggesting packaging, and (e) suggesting delayed reciprocity is positively correlated with negotiation outcomes (Weingart et al., 1996, p. 1214). Gathering high-quality and quantitatively complete data represents a behavioural approach to optimising integrative negotiation outcomes. The participants' negotiations are recorded in audio and video. These video recordings are evaluated after the negotiations for negotiation behaviour. As used in Weingart et al. (1996), this thesis evaluated the presence or absence of the behaviours mentioned above. Each behaviour was treated as a dichotomous variable (present = 2; absent = 1). As in Weingart et al. (1996), a behaviour was considered present if it occurred at least once during the negotiation and absent if it never occurred' (p. 1210). The coding scheme is adapted from Weingart et al. (1996, p. 1217) and is illustrated in Appendix 15. Last, the frequency of the integrative behaviours is analysed according to (Graham, 1978).

4.3.3.3 SIM Score as a Predictor for Negotiation Performance

Based on the research gap, experimental studies should generate knowledge on 'how people with high or low SIM scores perform in integrative negotiations' and to 'understand to which extent the SIM can predict negotiation performance' (Ade et al., 2020, p. 746), the following hypotheses are derived:

H 1.1: Participants with high SIM scores achieve higher individual economic outcomes in integrative negotiations.

H 1.2: Participants with high SIM scores achieve higher joint economic outcomes in integrative negotiations.

H 1.3: Participants with high SIM scores achieve higher subjective value inventories of the counterpart in integrative negotiations.

In addition to examining the correlation between an integrative mindset as a predictor for the three types of negotiation outcomes, this thesis examines whether SIM scores are also a predictor for integrative negotiation behaviour. The following hypotheses are derived to test whether integrative mindsets are a predictor for integrative negotiation behaviour:

H 1.4: Participants with high SIM scores will likely make more multi-issue offers.

H 1.5: Participants with high SIM scores will more likely provide more information about priorities across issues.

H 1.6: Participants with high SIM scores will be more likely to ask questions about priorities.

H 1.7: Participants with high SIM scores will be more likely to suggest the discussion of packaging.

H 1.8: Participants with high SIM scores will more likely suggest delayed reciprocity.

Based on the individual SIM score calculations for each data set (using the arithmetic mean of the 15 individual factors based on a six-point Likert scale) and individual calculations of dependent variables (absence versus presence of integrative negotiation behaviour, joint economic outcome, individual economic outcome, and SVI), the hypotheses were empirically tested. First, Pearson's correlation coefficient (cf. Shevlyakov and Oja, 2016, p. 13) was calculated and interpreted under Cohen's classification³ (Cohen, 2003) to determine a correlation between the variables.

$$r = \frac{1}{n} \sum_{i=1}^n \frac{x_i - \bar{x}}{s_x} \frac{y_i - \bar{y}}{s_y},$$

Figure 13: Pearson's correlation coefficient (Shevlyakov and Oja, 2016, p. 13)

The formula contains the elements of r (correlation coefficient), x_1 (intercept), β_1 (regression coefficient of x_1), x (SIM score; independent variable), y (negotiation outcome; dependent variable), and ε (error).

³ Small effects = 0.10; medium effects = 0.30; large effects = 0.50

Second, a linear regression analysis (cf. Montgomery et al., 2012, p. 67) was performed for each hypothesis to determine the change in the dependent variable concerning the change in the independent variable. The formulas used are shown in the following figures.

$$y = \beta_0 + \beta_1 x + \varepsilon$$

Figure 14: Linear regression analysis (Montgomery et al., 2012, p. 67)

The formula contains the elements of y (negotiation outcome; dependent variable), β_0 (intercept), β_1 (regression coefficient of x), x (SIM score; independent variable), and ε (error).

4.3.3.4 VFT Technique as a Predictor for Negotiation Performance

Based on the research gap that experimental studies should generate knowledge on applying VFT in an experimental negotiation setting (cf. chapter 2.2.2), this thesis uses VFT as a negotiation preparation methodology. Furthermore, Keeney's theory that VFT should provide support in integrative negotiations (Keeney, 1992; Keeney, 1996) argues that negotiators have an advantage and achieve better negotiation results through preparation using VFT. Like the description of the research gap for Hypotheses H 1.1–H 1.8, negotiation outcomes are recorded as individual economic outcomes, joint economic outcomes, and SVI outcomes. Accordingly, the following hypotheses are derived:

H 2.1: Participants applying the VFT technique of identifying objectives achieve higher individual economic outcomes in integrative negotiations.

H 2.3: Participants applying the VFT technique of identifying objectives achieve higher joint economic outcomes in integrative negotiations.

H 2.3: Participants applying the VFT technique of identifying objectives achieve higher subjective value inventories of the counterpart in integrative negotiations.

In addition to examining the correlation between the application of VFT as a predictor for negotiation outcomes, it will be examined whether the application of VFT is also a predictor for integrative negotiation behaviour (cf. Weingart et al., 1996, p. 1214). The following hypotheses were derived to test the application of VFT as a predictor for integrative negotiation behaviour:

H 2.4: Participants applying the VFT technique of identifying objectives will be more likely to make more multi-issue offers.

H 2.5: Participants applying the VFT technique of identifying objectives will be more likely to provide more information about priorities across issues.

H 2.6: Participants applying the VFT technique of identifying objectives will be more likely to ask more questions about priorities.

H 2.7: Participants applying the VFT technique of identifying objectives will be more likely to suggest the discussion of packaging.

H 2.8: Participants applying the VFT technique of identifying objectives will be more likely to suggest delayed reciprocity.

Based on the exposure to the treatment of the VFT technique of identifying objectives for each data set (treatment was determined as a dichotomous variable [present = 2; absent = 1]) and individual calculations of dependent variables (absence versus presence of integrative negotiation behaviour, joint economic outcome, individual economic outcome, and SVI), the hypotheses were empirically tested. First, Pearson's correlation coefficient (cf. Shevlyakov and Oja, 2016, p. 13) was calculated and interpreted under Cohen's classification (Cohen, 2003) to determine whether there is a correlation between the variables.

$$r = \frac{1}{n} \sum_{i=1}^n \frac{x_i - \bar{x}}{s_x} \frac{y_i - \bar{y}}{s_y},$$

Figure 15: Pearson's correlation coefficient (Shevlyakov and Oja, 2016, p. 13)

The formula contains the elements of r (correlation coefficient), x_1 (intercept), β_1 (regression coefficient of x_1), x (VFT treatment; independent variable), y (negotiation outcome; dependent variable), and ε (error).

Second, a linear regression analysis (cf. Montgomery et al., 2012, p. 67) was performed for each hypothesis to determine the change in the dependent variable concerning the change in the independent variable. The underlying formula for calculating linear regressions is illustrated below:

$$y = \beta_0 + \beta_1 x + \varepsilon$$

Figure 16: Linear regression analysis (Montgomery et al., 2012, p. 67)

The formula contains the elements of y (negotiation outcome; dependent variable), β_0 (intercept), β_1 (regression coefficient of x_1), x (VFT treatment; independent variable), and ε (error).

4.3.3.5 Integrative Negotiation Behaviours as a Predictor for Negotiation Outcomes

In this thesis, the five behavioural recommendations by Weingart et al. (1996) are considered not only as behavioural objectives to influence the economic outcome of the negotiation (see H 1.4–H 1.8 and H 2.4–H 2.8) but also as an individual theory that claims to affect negotiation outcomes. Like H 1.1–H 1.3 and H 2.1–H 2.3, the integrative negotiation behaviours prescribed by Weingart et al. (1996) are tested in this study for their impacts on negotiation outcomes, which are recorded as individual economic outcomes, joint economic outcomes, and SVI outcomes. Accordingly, the following hypotheses are derived:

- H 3.1:** Participants applying the integrative negotiation behaviour of making multi-issue offers achieve higher individual economic outcomes in integrative negotiations.
- H 3.2:** Participants applying the integrative negotiation behaviour of making multi-issue offers achieve higher joint economic outcomes in integrative negotiations.

- H 3.3:** Participants applying the integrative negotiation behaviour of making multi-issue offers achieve higher subjective value inventories of the counterpart in integrative negotiations.
- H 3.4:** Participants applying the integrative negotiation behaviour of providing information about priorities across issues achieve higher individual economic outcomes in integrative negotiations.
- H 3.5:** Participants applying the integrative negotiation behaviour of providing information about priorities across issues achieve higher joint economic outcomes in integrative negotiations.
- H 3.6:** Participants applying the integrative negotiation behaviour of providing information about priorities across issues achieve higher subjective value inventories of the counterpart in integrative negotiations.
- H 3.7:** Participants applying the integrative negotiation behaviour of asking questions about priorities achieve higher individual economic outcomes in integrative negotiations.
- H 3.8:** Participants applying the integrative negotiation behaviour of asking questions about priorities achieve higher joint economic outcomes in integrative negotiations.
- H 3.9:** Participants applying the integrative negotiation behaviour of asking questions about priorities achieve higher subjective

value inventories of the counterpart in integrative negotiations.

H 3.10: Participants applying the integrative negotiation behaviour of suggesting packaging achieve higher individual economic outcomes in integrative negotiations.

H 3.11: Participants applying the integrative negotiation behaviour of suggesting packaging achieve higher joint economic outcomes in integrative negotiations.

H 3.12: Participants applying the integrative negotiation behaviour of suggesting packaging achieve higher subjective value inventories of the counterpart in integrative negotiations.

H 3.13: Participants applying the integrative negotiation behaviour of suggesting delayed reciprocity achieve higher individual economic outcomes in integrative negotiations.

H 3.14: Participants applying the integrative negotiation behaviour of suggesting delayed reciprocity achieve higher joint economic outcomes in integrative negotiations.

H 3.15: Participants applying the integrative negotiation behaviour of suggesting delayed reciprocity achieve higher subjective value inventories of the counterpart in integrative negotiations.

Based on the application of integrative negotiation behaviours for each data set as independent variables (independent variables were determined as a dichotomous variable [present = 2; absent = 1]) and individual calculations of dependent variables (joint economic outcome, individual economic outcome, and SVI), the hypotheses were empirically tested. First, Pearson's correlation coefficient (cf. Shevlyakov and Oja, 2016, p. 13) was calculated and interpreted under Cohen's classification (Cohen, 2003) to determine whether there is a correlation between the variables.

$$r = \frac{1}{n} \sum_{i=1}^n \frac{x_i - \bar{x}}{s_x} \frac{y_i - \bar{y}}{s_y},$$

Figure 17: Pearson's correlation coefficient (Shevlyakov and Oja, 2016, p. 13)

The formula contains the elements of r (correlation coefficient), x_1 (intercept), β_1 (regression coefficient of x_1), x (integrative negotiation behaviour; independent variable), y (negotiation outcome; dependent variable) and ϵ (error).

Second, a linear regression analysis (cf. Montgomery et al., 2012, p. 67) was performed for each hypothesis to determine the change in the dependent variable concerning the change in the independent variable. The underlying formula for calculating linear regressions is illustrated below:

$$y = \beta_0 + \beta_1 x + \epsilon$$

Figure 18: Linear regression analysis (Montgomery et al., 2012, p. 67)

The formula contains the elements of y (negotiation outcome; dependent variable), β_0 (intercept), β_1 (regression coefficient of x_1), x (VFT treatment; independent variable), and ε (error).

4.3.3.6 Empirical Comparison of Theories as Predictors for Negotiation Performance

A deductive method of empirical testing shall be applied to compare the opposing theories. This approach provides an original contribution to scientific knowledge in the tradition of critical rationalism.

Assuming that a sequential integration of theories leads to better individual economic outcomes, joint economic outcomes, SVI, and integrative behaviour, the following hypotheses are derived:

H 4.1: Applying the VFT technique of identifying objectives has a strengthening (compensatory) effect on participants with a high (low) SIM on the individual economic outcome in integrative negotiations.

H 4.2: Applying the VFT technique of identifying objectives has a strengthening (compensatory) effect on participants with a high (low) SIM on the joint economic outcome in integrative negotiations.

H 4.3: Applying the VFT technique of identifying objectives has a strengthening (compensatory) effect on participants with a high

(low) SIM on subjective value inventories of the counterpart in integrative negotiations.

H 4.4: Applying the VFT technique of identifying objectives has a strengthening (compensatory) effect on participants with a high (low) SIM on making multi-issue offers.

H 4.5: Applying the VFT technique of identifying objectives has a strengthening (compensatory) effect on participants with a high (low) SIM on providing more information about priorities across issues.

H 4.6: Applying the VFT technique of identifying objectives has a strengthening (compensatory) effect on participants with a high (low) SIM on asking more questions about priorities.

H 4.7: Applying the VFT technique of identifying objectives has a strengthening (compensatory) effect on participants with a high (low) SIM on suggesting the discussion of packaging.

H 4.8: Applying the VFT technique of identifying objectives has a strengthening (compensatory) effect on participants with a high (low) SIM suggesting delayed reciprocity.

To test these hypotheses, multiple regression analyses (cf. Montgomery et al., 2012, p. 67) were applied to test whether the predictor variable (SIM) and/or whether applying the predictor variable of the application of the VFT technique of identifying objectives has a strengthening (compensatory) effect on participants

with a high (low) SIM and influences the response variables (1) individual economic outcome, (2) joint economic outcome, (3) SVI of the counterpart on the response variables, and (4) integrative negotiation behaviours, as defined by Weingart et al. (1996, p. 1214). The underlying formula for calculating multiple regressions is illustrated below:

$$y = \beta_0 + \beta_1 x_1 + \beta_2 x_2 + \varepsilon$$

Figure 19: Multiple regression model (Montgomery et al., 2012, p. 67)

The formula contains the elements of y (negotiation outcome; dependent variable), β_0 (intercept), β_1 (slope of x_1), x_1 (SIM score; independent variable 1), β_2 (slope of x_2), x_2 (VFT treatment; independent variable 2), and ε (error).

3.3 Ethical Considerations

In academic communities, there is a consensus that research should be conducted within the framework of research ethics (Steneck, 2006). This research project was undertaken in accordance with German and UK law and with the Ethics Policy of Sheffield Hallam University,⁴ which is in accordance with the Declaration of Helsinki by the Research Council and the European Science Foundation. The researcher respected, among others, the following guidelines of the principles:

⁴ for detailed information please visit
https://www4.shu.ac.uk/_assets/pdf/research-ethics-policy.pdf

- Beneficence – ‘doing positive good.’
- Non-Maleficence – ‘doing no harm.’
- Integrity
- Informed Consent
- Confidentiality/Anonymity
- Impartiality

The researcher considered these principles in the research design, the participant selection, the study execution, the data analysis, and the communication of the research findings and publications. Only the researcher and supervisors had access to the entire data set.

All participants were provided with the Participant Information Sheet (Appendix 16) and completed the Consent Form (Appendix 17). Due to the virtual execution of the experiment, the Participants Information Sheet was made available online,⁵ and the Consent Form was integrated into the virtual online survey. All participants had the right to stop the experiment at any time and have the data already collected deleted. In addition, all participants had the opportunity to withdraw their participation in the experiment and the data analysis within three months.

This report's conclusions are solely the independent researcher's opinion, who confirms that any third party has not influenced him.

⁵ Online version of Participants Information Sheet can be found at the following link: <https://participant-information-sheet-dba.jimdosite.com/>

3.4 Pilot Study

3.4.1 Participants

A pilot study was conducted in November and December 2021. A group of 20 participants participated in two pilot study sessions. The author of this study recruited participants and did not receive monetary compensation but did receive feedback on their negotiation performance in the measured performance indicators. All participants read the Participant Information Sheet (Appendix 11) and agreed to the Consent Form to the extent that all participants wanted and could proceed with the experiment. Seven of the participants were women (35%), and 13 were men (65%). All the participants hold a degree in business administration or equivalent. The average age was 32.89 years, with an SD of 5.17 years. The average age of the experimental group was 34.40 (SD = 6.69), with a gender distribution of 90% men and 10% women, and the average age of the control group was 32.4 (SD = 3.34), with a gender distribution of 40% men and 60% women.

3.4.2 Task

The participants conducted the two-party, multi-issue negotiation case, as described in the previous section. In this case, dyads are negotiating a labour contract. Participants were randomly assigned the role of labour representative or management representative. Ten participants were assigned to the control group, and 10 were assigned to the experimental group. Within these groups, five

participants were assigned to negotiate as a labour representative, and five were assigned to the management representative role. Participants were not informed whether they were assigned to the experimental or control group. The following figure illustrates the assignment of the participants to either the experimental or control group and to either the labour or management representative role.

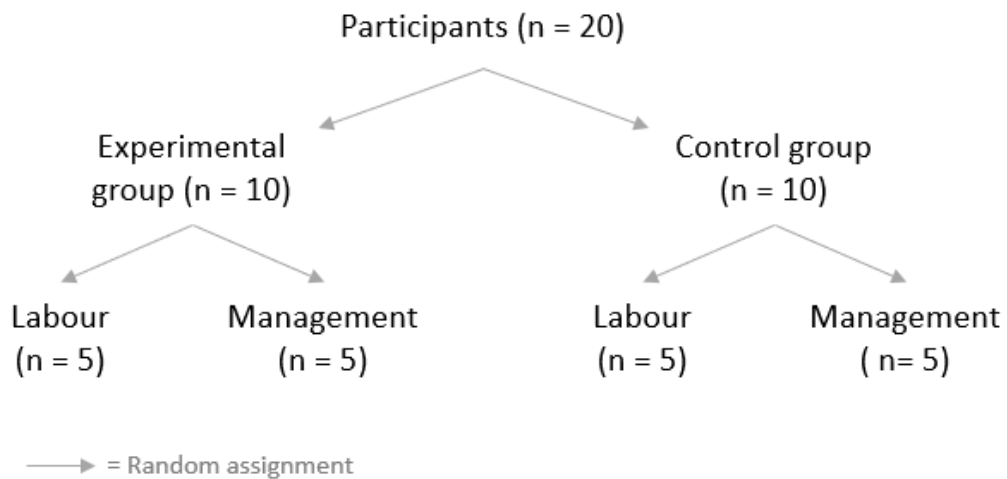


Figure 20: Random assignment of participants into groups and roles (devised by the author)

3.4.3 Procedure

Before the experiment, participants were recruited from the author's personal and professional network and invited by e-mail, including a link to the internet-based video-conferencing application. Upon virtual arrival in the virtual laboratory, participants were welcomed and introduced to the experimental setting, the handling of the internet-based video conferencing application (Microsoft Teams), and the online survey application for documenting results (SurveyMonkey). Furthermore, participants received a generic introduction to the negotiation task

(Appendix 18). Professor Jack Nasher-Awakemian accompanied the pilot study to validate scientific accuracy and suggest necessary changes and additions.

The participant group was divided into individual breakout rooms and given a group- and role-specific hyperlink to the online questionnaire application. After a preparation time of 15 minutes, the participants were directed from their individual preparation rooms to the negotiation rooms. Only the two negotiating parties and the author were present in the negotiating rooms. At the beginning of the negotiation, the participants in each negotiation room were informed about the video recording, and the video recording function was started. After the 15-minute negotiation, the researcher asked the participants whether they had concluded. All participants had agreed on a negotiation outcome within the prescribed time. After confirming the results of the negotiations, the video recording was stopped and downloaded. Subsequently, the participants entered the negotiations' results into the online survey application and completed the questionnaire for the SVI. At the end of the experiment, the researcher thanked the participants for participating. After evaluating the negotiation results (individual economic outcome, joint economic outcome, and SVI by the counterpart), these results were made available to the participants as feedback via e-mail.

3.4.4 Adjustments for this Study based on the Pilot Study

In alignment with Professor Jack Nasher-Awakemian and, subsequently, Professor Martin, four lessons learned from the pilot study have been identified: (1) adjustment of the sample size, (2) adjustment of the participants'

characteristics, (3) adjustment of the SVI questionnaire, and (4) no adjustment to the procedure, task, and research design. The lessons learned and their impacts are outlined in the following paragraphs.

Adjustment of the sample size: The initially aimed sample size included 30 dyads per condition (cf. section 4.3.2). Two conditions – experimental group and control group – were to be examined to test the two theories. Lessons learned from the pilot study requires this study to aim for 52 dyads instead of 30 dyads per condition, resulting in the participation of 104 participants. This enlargement of sample size is required to meet scientific standards of negotiation research and align with other studies of negotiation behaviour and negotiation outcomes, also dealing with subjective value in negotiation (see Lewis et al., 2018, p. 386 using 40 dyads). Based on the practice in negotiation experiments that dyads with participants who do not meet the sample criteria, report no consensual agreements, or report incomplete data sets are removed from the analysis (cf. Roszkowska, Kersten and Wachowicz, 2021, p. 11), the sample size was increased to 52 dyads. Therefore, this sample size of 52 includes a buffer to obtain at least 40 usable dyad results. The evaluation of the pilot study proves the necessity of increasing the sample size. Even though all 20 participants in the pilot study reached a negotiation outcome and provided valid data, two participants could not reach the required individual economic outcome of 400 points (395 and 380 points were reached). Therefore, there is a risk that some dyads will not be able to agree on analysable negotiation results. On the one hand, this testifies to the authenticity of the negotiation task, but on the other hand, it must be assumed that some dyads do not produce analysable results.

Adjustment of the participants' characteristics: The intended characteristics structure of the sample included graduate students in business administration. Even though most empirical negotiation research is based on student samples (Herbst and Schwarz, 2011, p. 148), this study aimed to be sensitive to the ongoing controversy regarding the generalisability of research findings. As mentioned by Pullins et al. (2000) and Weingart, Prietula and Hyder (1996), it is argued that students have little or no experience in professional negotiation, and conclusions cannot be generalised to professionals. Especially as the context of this study is labour negotiations between a union representative of labour and a management representative, this study needs to acknowledge the findings of Herbst and Schwarz (2011, p. 163), who found that untrained students underperform compared to trained student negotiators. Professional negotiators also do not outperform students with some negotiation experience regarding individual gains achieved. In addition, untrained students also underperform significantly in the outcome category of joint gains compared to trained students and professional negotiators.

The required characteristics of the participants are narrowed down to strengthen the reliability and generalisability of the research results. As a sampling strategy of this study, the educational background and professional experience in the labour market are of relevance. Therefore, this study only involved participants with an educational background of at least a bachelor's degree in business administration and at least two years of professional experience in the labour market (cf. Herbst and Schwarz, 2011). All the participants in the pilot study fulfilled the required characteristics in terms of academic background and professional experience. This was the result of an e-mail follow-up survey of the

participants. For further experiments, an additional field was added to the online questionnaires to query professional experience in years to ensure the sample quality and be able to indicate the average professional experience and standard deviation in years.

Adjustment of the SVI questionnaire: The 16-item SVI includes the question number 5 of

'Did you "lose face" (i.e., damage your sense of pride) in the negotiation'

in the sub-scale 'Feelings About the Self'. According to Curhan et al. (2006), the response options that should be reverse-scored are:

'1 = Not at all, 4 = Moderately, and 7 = A great deal; includes an option for NA' (p. 501)

While answering this questionnaire, there were several follow-up questions from the participants, as the answer options do not seem contradictory. Both 'Not at all' and 'A great deal' would mean no loss of face for the negotiator. Participants were informed that the question should be answered with '1 = Yes – I lost my face'. Accordingly, this answer option was also adapted in the online questionnaire and said:

'1 = Yes – I lost my face, 4 = Moderately, and 7 = A great deal; includes an option for NA'

Moreover, in contrast to Curhan et al.'s (2006, p. 501) recommendation, the answer to this question is not reverse-scored.

No adjustment to the procedure, task, and research design: The procedure, negotiation task, and research design were triple-confirmed. First, Professor Jack Nasher-Awakemian evaluated the scientific accuracy through his observational role during the pilot study and concluded that no adjustments were necessary to the procedure, task, and research design. Second, the participants were asked after the experiment whether the procedure and the negotiation task were comprehensible and applicable. The participants confirmed in the affirmative. Third, the pilot study produced usable and interpretable results. SIM scores were measured between 3.60 and 5.53 and were measured on a six-point Likert scale (mean = 4.53; SD = 0.49). Individual economic outcomes ranged from 380 to 700 points (mean = 503.50; SD = 88.69). Joint economic outcomes varied from 820 to 1,160 points (mean = 1,001; SD = 109.44). SVI ranged from 4.10 to 7.00 and was measured on a seven-point Likert scale (mean = 5.57; SD = 0.71). The behavioural evaluations regarding the absence or presence were also recorded with widespread results. The behaviours of (a) making multi-issue offers, (b) providing information about priorities across issues, and (d) suggesting packaging were each used by nine participants. Eight participants used the behaviour of (c) asking questions about priorities, and 12 participants (e) suggested delayed reciprocity.

Since all participants in the pilot study fulfilled the required characteristics in terms of academic background and professional experience, and no changes were made to the procedure, negotiation task, and research design, the results of the pilot study have been incorporated into the overall evaluation of this study and are included in the subsequent chapters.

This chapter presented the methodology of this study in the context of labour negotiations. First, this chapter introduced the philosophical positioning of the researcher as a methodological foundation of this study, highlighting Popper's (1972) suggestions for testing a theory. Second, the main methods used in negotiation research were discussed and assessed concerning the purpose of this study to justify the selection of the laboratory experiment method. Third, the research design of a 'two-group, before-after design', sampling strategy, data collection process, and data analysis process was presented. Fourth, the ethical principles of the researcher and Sheffield Hallam University were presented, and how they were adhered to in this study was explained. Finally, this chapter concluded with the experimental design and procedure, the sample, the data collected, and the pilot study's findings to derive final adjustments for this study.

4. Findings

'We really are not a zero-sum society – it is not true that what one gains another must necessarily lose. The trouble is that often; we act as if this were the case.'

(Raiffa, 1982, p. 14)

This chapter presents the findings of this study. First, this chapter presents the data summary of the independent and dependent variables and the descriptive analyses of normality and reliability. Second, to test Hypotheses 1.1–1.8, correlation and regression analyses are performed between the independent variables SIM and the dependent variables PIEO, PJEO, SVI, and the behavioural variables (a) making multi-issue offers, (b) providing information about priorities across issues, (c) asking questions about priorities, (d) suggesting packaging, and (e) suggesting delayed reciprocity. Third, to test Hypotheses 2.1–2.8, correlation and regression analyses are performed between the independent variable related to the VFT technique of identifying objectives and the above-mentioned dependent variables. Fourth, Hypotheses 3.1–3.15 are tested by applying correlation and regression analyses. The subsequent fifth section compares the two theories – the SIM and the VFT technique of identifying objectives – to test Hypotheses 4.1.–4.8 using correlation and multiple regression analyses. The final section provides additional analyses that are not based on hypotheses but complement the overall findings of this thesis.

All calculations were conducted using IBM SPSS Statistics 26 software.

4.1 Descriptive Statistics

This section describes the descriptive statistics of the independent and dependent variables in this study.

4.1.1 Independent Variables

One hundred and four participants took part in this study. The demographic data collected include name, age, gender, and professional experience. This thesis followed Sharma (2015) and operationalised age, professional experience, and gender as control variables. In addition, each participant was automatically assigned an 11-digit identification number by the online survey application software for documenting results (SurveyMonkey). This identification number (Participant ID) serves as a classification criterion for allocating further data.

The SIM scores of the participants were collected through the SIM questionnaire (cf. Ade et al., 2020). The arithmetic means were calculated based on the associated five questions for the three categories of collaboration, curiosity, and creativity. A cross-category mean for SIM was also calculated. Appendix 19 illustrates the independent variables listed above and is supplemented by the assignment of the respective dyad ('Group') and the assignment of the participants to the experimental or control group. The SIM scores ranged from 3.27 to 5.80 (mean = 4.62; SD = .48). Collaboration, the first subscale of the SIM score, ranged from 3.00 to 6.00 (mean = 4.58; SD = .62). Curiosity, the second subscale of the SIM score, ranged from 2.60 to 6.00 (mean = 4.99; SD = .68). Creativity, the third subscale of the SIM score, ranged from 2.20 to 6.00 (mean =

4.30; SD = .84). It should be noted that four participants were removed from the study (dyad 3 and dyad 35). Three of the four excluded participants did not meet the criteria of the sampling strategy and indicated either insufficient professional experience or different/no academic education. The fourth participant who was excluded was assigned to a dyad with a participant who did not meet the requirements of the sampling strategy. Cronbach's Alpha (α) for the three categories 'collaboration', 'curiosity', and 'creativity' as well as the SIM score is $\alpha = .680$, which indicates acceptable reliability of the questionnaire (cf. Streiner, 2003). Ade et al. (2020) already validated the scale for integrative mindset. Therefore, a repeated validity analysis can be dispensed with. The frequency of the SIM scores with a Kurtosis of .320 and a standard error of the Kurtosis of .478 is normally distributed (Graham, 1978) and shown in the following figure.

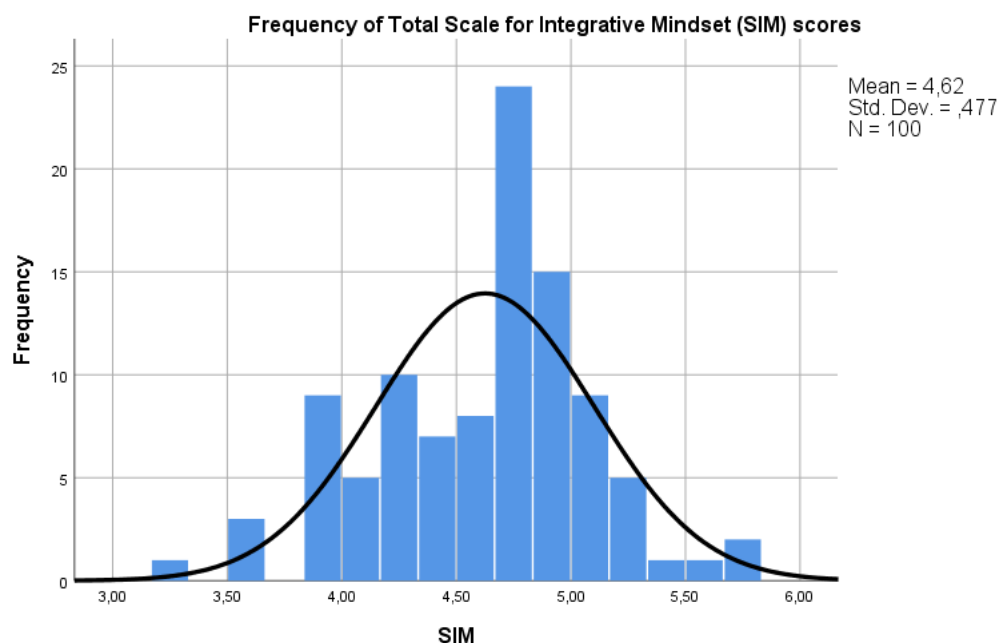


Figure 21: Frequency of total Scale for Integrative Mindset (SIM) scores (devised by the author)

As shown in Appendix 19, 39 participants were women, and 61 were men. All participants categorised themselves according to a binary gender choice. All the participants held a degree in business administration or its equivalent.⁶ The average participant age was 32.12 years, with a SD of 7.72 years and a range from 22 to 59 years. The distribution of the age with a Kurtosis of 1.580 and a standard error of the Kurtosis of .478 is normally distributed (Graham, 1978) and shown in the following figure.

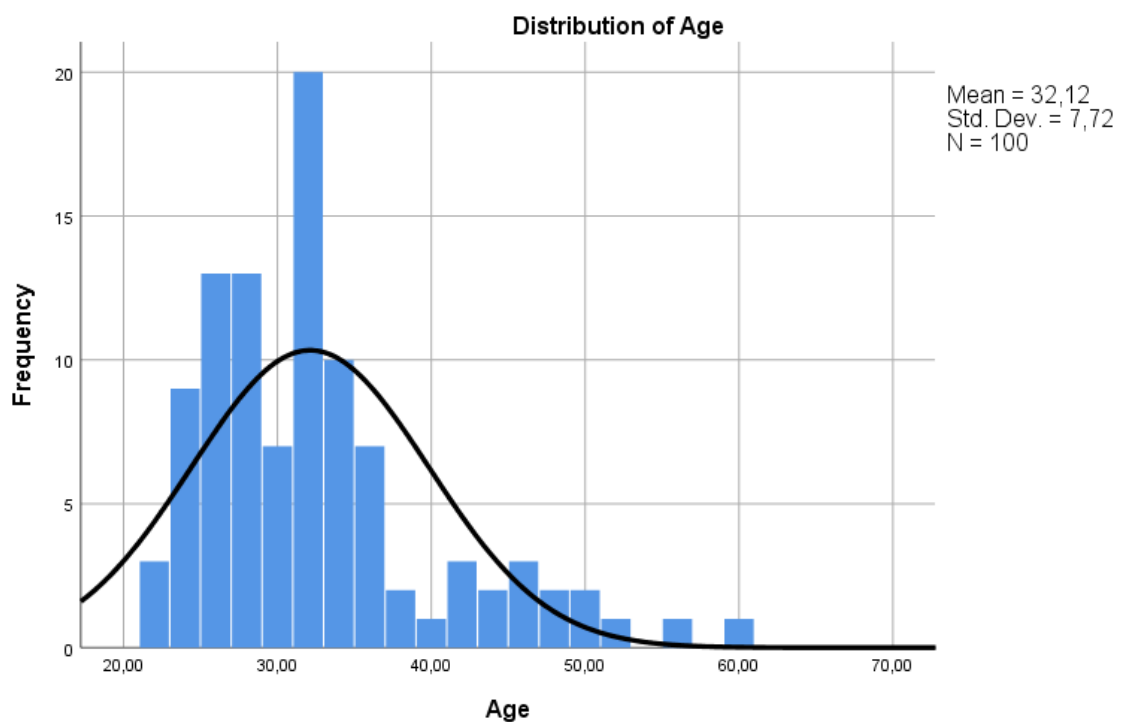


Figure 22: Distribution of age (devised by the author)

The average number of years of professional experience among participants was 8.42 years, with a SD of 7.67 years and a range from 2 to 42 years. The

⁶ It should be noted that four participants were removed from the study (dyad 3 and dyad 35). Three of the four excluded participants did not meet the criteria of the sampling strategy and indicated either insufficient professional experience or different/no academic education. The fourth participant who was excluded was assigned to a dyad with a participant who did not meet the requirements of the sampling strategy.

distribution of the professional experience with a Kurtosis of 3.558 and a standard error of the Kurtosis of .478 is not normally distributed (Graham, 1978), as shown in the figure below. It indicates that most participants have a professional experience of >2 to <10 years.

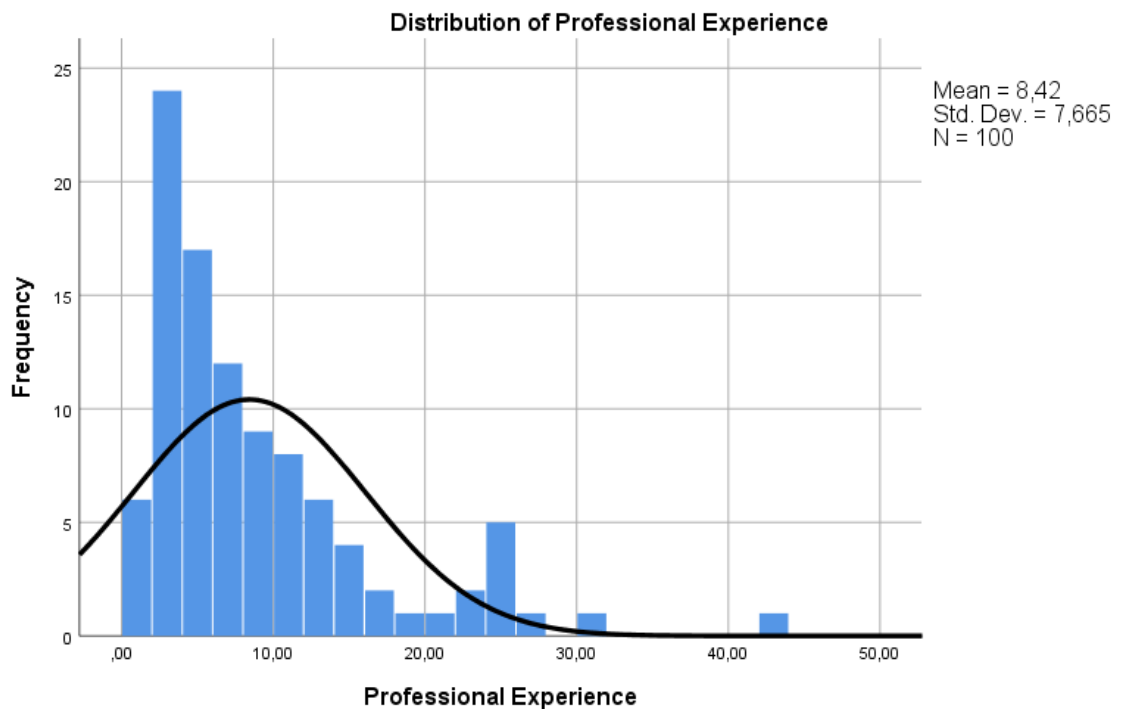


Figure 23: Distribution of professional experience (devised by the author)

Appendix 19 also indicates that of the 100 participants, 50 were assigned to the experimental group and 50 to the control group. This distribution is reflected in the column 'Group and roles', which shows that 50 assessed participants were assigned the value 2 (= treatment present), and 50 assessed participants were assigned the value 1 (= treatment absent) for this variable. These independent variables demonstrate that the treatment (VFT) was classified as a dichotomous variable (present = 2; absent = 1).

4.1.2 Dependent Variables

The dependent variables measure the negotiation outcomes. For this study, the integrative negotiation outcomes are defined via the PIEO, PJEO, SVI of the counterpart, and integrative negotiation behaviours, as defined by Weingart (1996), all calculated after the negotiations. Appendices 15, 16, and 17 present the negotiation performance results of this study.

As indicated in Appendix 20, the absolute individual economic outcome ranged from 205 to 760 points, with Pareto efficiencies of individual economic outcomes ranging from .00% to 99.17%. Appendix 20 also indicates an average of 494.35 points (SD = 96.79) as the absolute individual economic outcome and an average PIEO of 42.87 (SD = 29.70). Even though a minimum score of 400 points was required in the task description, negotiation agreements were included in the overall calculation if negotiated unanimously in dyads where one of the parties scored less than 400 points. The distribution of the Pareto efficiency of individual economic outcome (PIEO) with a Kurtosis of -.992 and a standard error of the Kurtosis of .478 is normally distributed (Graham, 1978) and shown in the figure below. The fact that the participants' results were retained in the study despite not reaching the required 400 minimum points is worth mentioning, as the frequency of Pareto efficiency of 0.00 % is particularly high compared to other individual results. Nevertheless, the procedure of including the Pareto efficiency values of 0.00 % is relevant to reflect the actual results.

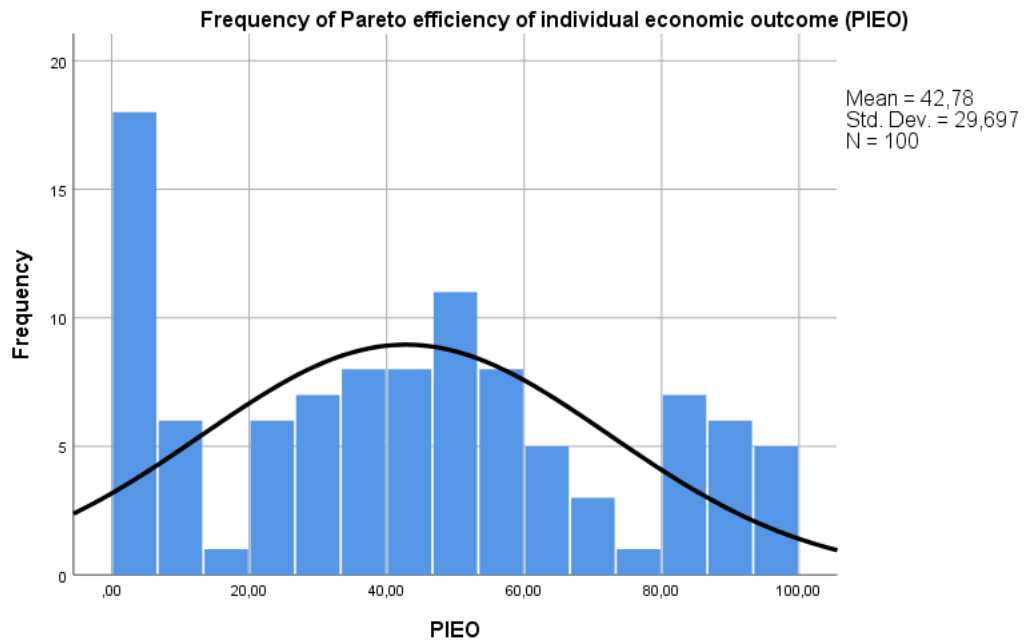


Figure 24: Frequency of the Pareto efficiency of individual economic outcomes (PIEO; (devised by the author)

The joint economic outcome, calculated as the sum of the individual economic outcomes per dyad, ranged in absolute points from 650 to 1,160 points, with respective Pareto efficiencies ranging from 11.85% to 100%. The average absolute joint economic outcome in points was 988.70 (SD = 117.49), with a respective mean Pareto efficiency of joint economic outcome (PJEO) of 79.78 (SD = 23.50). The distribution of the PJEO with a Kurtosis of 1.173 and a standard error of the Kurtosis of .478 is normally distributed (Graham, 1978) and shown in the following figure.

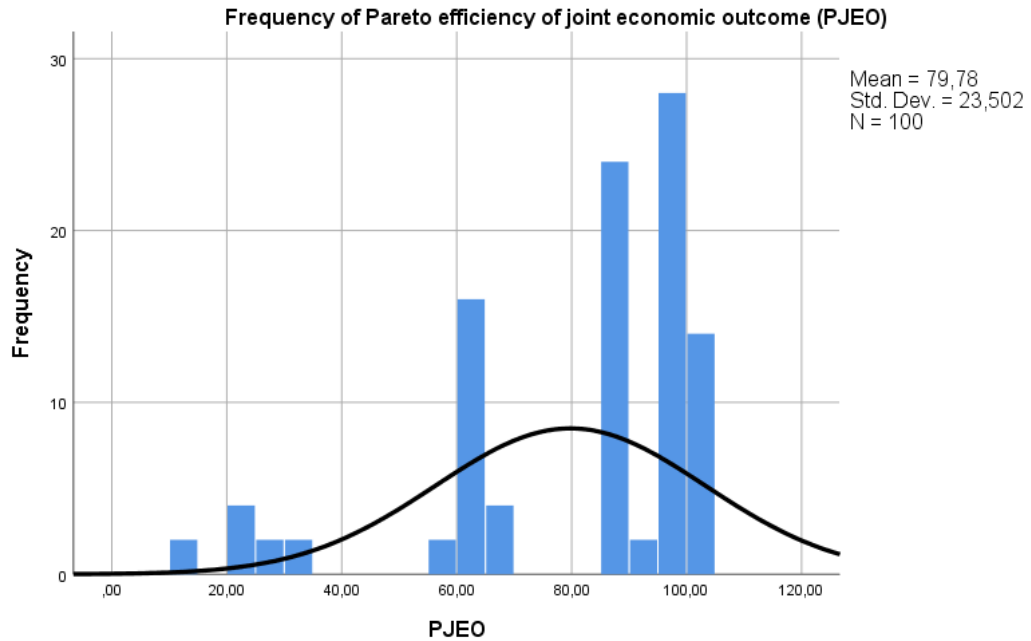


Figure 25: Frequency of the Pareto efficiency of joint economic outcomes (PJEO); (devised by the author)

Cronbach's Alpha (α) for the two economic outcomes of PIEO and PJEO is $\alpha = .722$, which indicates good reliability of the questionnaire (cf. Streiner, 2003).

The SVI scores resulted from the assessments of each participant's negotiation counterpart⁷ and were based on the SVI questionnaire (Curhan et al., 2006), which uses a seven-point Likert scale. The complete data are also presented in Appendix 20. The SVI is presented in four sub-categories – instrumental outcome, self, process, and relationship – as required by Curhan et al. (2006). The sub-categories' process and relationship were averaged to form the sub-category rapport, which is presented in the column 'overall'. The SVI sub-category 'instrumental outcome' ranged from 3.50 to 7.00, with a mean of 5.44 (SD = .97). The SVI sub-category 'self' ranged from 2.75 to 7.00, with a mean of

⁷ For example, the SVI of participant 13135138934 was entered by participant 13135128016.

5.52 (SD = .93). The SVI sub-category 'process' ranged from 2.75 to 7.00, with a mean of 5.72 (SD = .91). The SVI sub-category 'relationship' ranged from 3.00 to 7.00, with a mean of 5.92 (SD = .94). The SVI sub-category 'rapport' ranged from 3.38 to 7.00, with a mean of 5.82 (SD = .81). The total SVI represented the mean of all four sub-categories and ranged from 3.50 to 7.00, with a mean of 5.65 (SD = .73). The frequency of the total Subjective Value Inventory (SVI) with a Kurtosis of .346 and a standard error of the Kurtosis of .478 is normally distributed (Graham, 1978) and shown in the following figure.

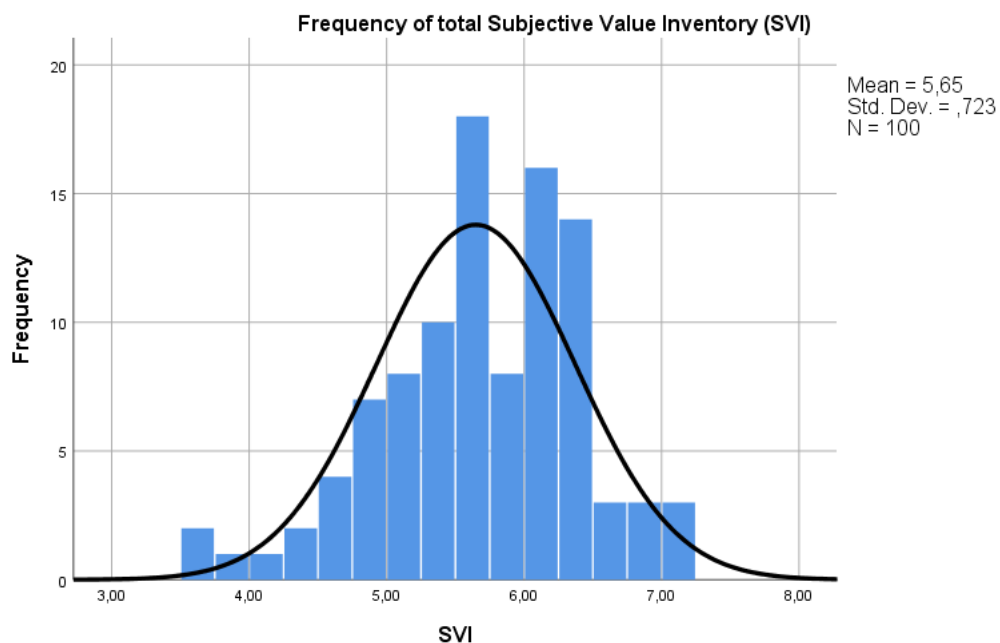


Figure 26: Frequency of the Subjective Value Inventory (SVI; (devised by the author)

Cronbach's Alpha (α) for the four sub-categories instrumental outcome, self, process, and relationship is $\alpha = .776$, which indicates good reliability of the questionnaire (cf. Streiner, 2003).

Based on the video recordings and the behavioural coding categories (adapted from (Weingart et al., 1996, p. 1217; Appendix 10), the integrative negotiation

behaviours of (a) making multi-issue offers, (b) providing information about priorities across issues, (c) asking questions about priorities, (d) suggesting packaging, and (e) suggesting delayed reciprocity were identified based on an absence-presence analysis. As in Weingart et al. (1996), the presence of integrative negotiation behaviour was marked with the value 2 (= behaviour present) and the absence of integrative negotiation behaviour with the value 1 (= behaviour absent). The integrative negotiation behaviours of (a) making multi-issue offers, (b) providing information about priorities across issues, and (d) suggesting packaging were used by 50% of participants ($SD = .5$). The integrative negotiation behaviour of (c) asking questions about priorities was used by 40% ($SD = .5$) of participants and (e) suggesting delayed reciprocity by 60% ($SD = .5$) of participants. The cross-behavioural mean of all participants was 1.48 ($SD = .32$). The frequency of the cross-behavioural mean of integrative behaviours with a Kurtosis of -1.016 and a standard error of the Kurtosis of .478 is normally distributed (Graham, 1978) and shown in the following figure.

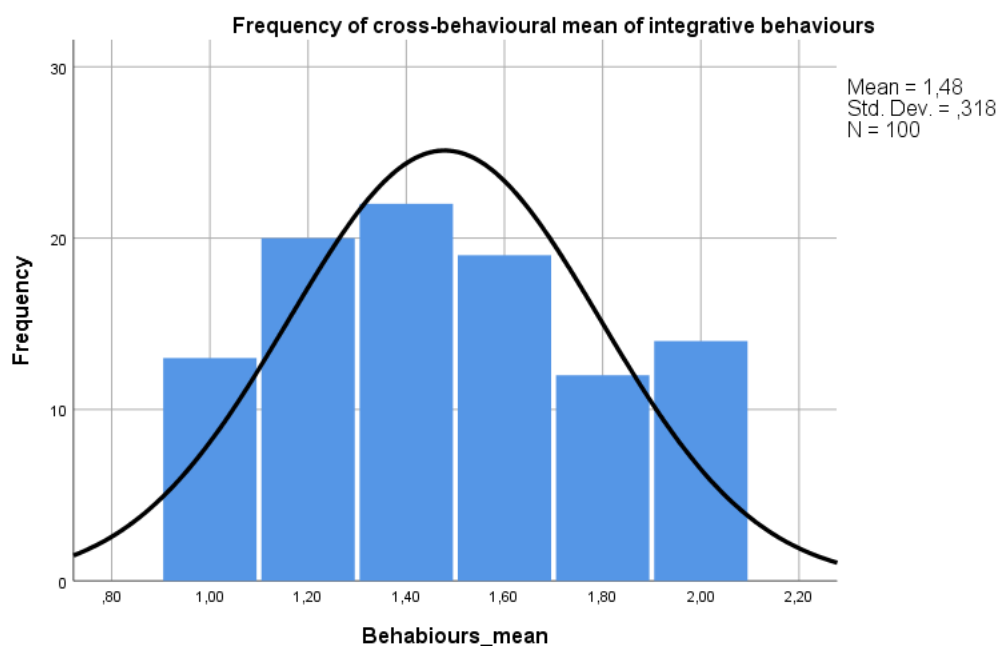


Figure 27: Distribution of the cross-behavioural mean of integrative behaviours (devised by the author)

Cronbach's Alpha (α) for the five behaviours of (a) making multi-issue offers, (b) providing information about priorities across issues, (c) asking questions about priorities, (d) suggesting packaging, and (e) suggesting delayed reciprocity is $\alpha = .638$, which indicates acceptable reliability of the questionnaire (cf. Streiner, 2003).

The following section presents the finding of the scale for integrative mindset as a predictor of negotiation performance.

4.2 Scale for Integrative Mindset as a Predictor of Negotiation Performance

The SIM score was calculated as the arithmetic mean of the 15 individual factors combined with the three inclinations of collaboration, curiosity, and creativity on a six-point Likert scale, as recommended by Ade et al. (2020). Based on the individual scale for integrative mindset score calculations for each participant and individual values of the dependent variables (PJEO, PIEO, SVI, absence versus presence of integrative negotiation behaviours), Hypotheses 1.1–1.8 were empirically tested.

First, Pearson's correlation coefficient (cf. Shevlyakov and Oja, 2016, p. 13) was calculated and interpreted according to Cohen's conventional definitions of small (0.10), medium (0.30), and large (0.50) correlation to determine whether there was a significant correlation between the variables. Second, linear regression

analyses were then calculated and interpreted to determine if the scale for integrative mindset had a significant effect on the dependent variables.

The table below presents the correlations between the independent variables scale for integrative mindset (SIM), 'collaboration', 'curiosity', and 'creativity' and the dependent variables PIEO; PJEO; SVI; the SVI subscales instrumental outcome, self, process, relationship, and rapport; and the integrative negotiation behaviours of (a) making multi-issue offers, (b) providing information about priorities across issues, (c) asking questions about priorities, (d) suggesting packaging, and (e) suggesting delayed reciprocity. Pearson's r value indicates the strength and direction of the linear correlation relationships.

| | | Correlations | | | | | | | | | | | | | | | | | | |
|------------------------------------|---------------------------------|--------------|--------|--------|--------|--------|--------|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | |
| SIM | 1. SIM | 1 | .518** | .716** | .738** | .036 | -.033 | -.064 | -.058 | -.121 | .001 | -.008 | -.005 | .163 | -.064 | .154 | .186 | .154 | .091 | |
| | 2. Collaboration | | 1 | .130 | .031 | -.250* | -.218* | -.015 | -.016 | -.115 | .015 | .087 | .059 | -.012 | -.100 | .044 | .107 | .006 | -.094 | |
| | 3. Curiosity | | | 1 | .306** | .012 | .011 | -.144 | -.017 | -.216* | -.103 | -.112 | -.122 | .152 | .001 | .139 | .139 | .098 | .109 | |
| | 4. Creativity | | | | 1 | .242* | .085 | .022 | -.075 | .058 | .089 | .006 | .053 | .167 | -.043 | .131 | .113 | .193 | .141 | |
| | 5. PIEO | | | | | 1 | .580** | -.046 | -.097 | .115 | -.036 | -.136 | -.099 | .367** | .252* | .240* | .155 | .289** | .232* | |
| | 6. PJEO | | | | | | 1 | .103 | .089 | .257** | .001 | -.038 | -.021 | .380** | .274** | .254* | .243* | .209* | .235* | |
| SVI of counterpart | 7. Total SVI | | | | | | | 1 | .744** | .778** | .818** | .757** | .894** | .007 | -.061 | .218* | .050 | -.037 | -.149 | |
| | 8. Instrumental Outcome | | | | | | | | 1 | .458** | .499** | .341** | .475** | -.057 | -.027 | .153 | -.001 | -.083 | -.225* | |
| | 9. Self | | | | | | | | | 1 | .512** | .441** | .541** | .015 | .006 | .189 | -.038 | -.050 | -.063 | |
| | 10. Process | | | | | | | | | | 1 | .550** | .876** | .124 | -.054 | .198* | .135 | .155 | -.039 | |
| | 11. Relationship | | | | | | | | | | | | 1 | .884** | -.050 | -.106 | .147 | .055 | -.118 | -.137 |
| | 12. Rapport | | | | | | | | | | | | | | 1 | .040 | -.091 | .196 | .107 | .019 |
| Integrative Negotiation Behaviours | 13. Integrative Behaviours mean | | | | | | | | | | | | | | 1 | .731** | .573** | .610** | .715** | .566** |
| | 14. a) Multi-issue offers | | | | | | | | | | | | | | | 1 | .257** | .348** | .462** | .264** |
| | 15. b) Info-priorities | | | | | | | | | | | | | | | | 1 | .176 | .280** | .109 |
| | 16. c) Ques-priorities | | | | | | | | | | | | | | | | | 1 | .269** | .176 |
| | 17. d) Proc-packaging | | | | | | | | | | | | | | | | | | 1 | .264** |
| | 18. e) Proc-reciprocity | | | | | | | | | | | | | | | | | | | 1 |

** . Correlation is significant at the 0.01 level (2-tailed).

* . Correlation is significant at the 0.05 level (2-tailed).

Table 6: Correlations for H 1.1–H 1.8 (devised by the author)

First, data correlation analysis demonstrates that there are non-significant correlations of scale for integrative mindset scores on integrative negotiation outcomes of PIEO (.036), PJEO (-.033), and SVI (-.064). Second, data correlation analysis demonstrates that there are non-significant correlations of scale for integrative mindset scores on integrative negotiation behaviours of making multi-issue offers (.064), providing information about priorities across issues (.154), asking questions about priorities (.186), suggesting the discussion of packaging (.154), and suggesting delayed reciprocity (.091).

4.2.1 Findings for Hypotheses H 1.1–H 1.3

As this thesis aims to generate knowledge regarding ‘how people with high or low SIM scores perform in integrative negotiations’ and to what ‘extent the SIM can predict negotiation performance’ (Ade et al., 2020, p. 746), the data in this study help to support or not support Hypotheses H 1.1–H 1.3. Standardised coefficients (β), significance (p), and variance inflated factors (VIF) are calculated in linear regression analyses and shown in Table 8 for Hypotheses H 1.1–H 1.3, including control variables of age, gender, and professional experience.

| Independent Variables | Dependent Variables | | | | | |
|-------------------------------|---------------------|--------|--------------|--------|-------------|------|
| | H 1.1 (PIEO) | | H 1.2 (PJEO) | | H 1.3 (SVI) | |
| | β | p | β | p | β | p |
| <i>Control Variables</i> | | | | | | |
| Age | .157 | .516 | .156 | .511 | .265 | .290 |
| Gender | .335 | .002** | .377 | .000** | .109 | .305 |
| Professional Experience | -.264 | .271 | -.191 | .418 | -.135 | .586 |
| R2 | | .109 | | .142 | | .045 |
| Adjusted R2 | | .082 | | .115 | | .015 |
| $\Delta R2$ | | .109 | | .142 | | .045 |
| <i>Control variables</i> | | | | | | |
| Age | .155 | .523 | .158 | .509 | .269 | .286 |
| Gender | .335 | .002** | .376 | .000** | .109 | .307 |
| Professional Experience | -.262 | .279 | -.194 | .413 | -.141 | .572 |
| <i>Independent variable</i> | | | | | | |
| Scale for Integrative Mindset | .033 | .733 | -.033 | .733 | -.061 | .543 |
| R2 | | .110 | | .143 | | .049 |
| Adjusted R2 | | .073 | | .107 | | .009 |
| $\Delta R2$ | | .001 | | .001 | | .004 |

** . The effect is significant at the 0.01 level.

* . The effect is significant at the 0.05 level.

Table 7: Linear regression analyses H 1.1–H 1.3 (devised by the author)

Hypothesis 1.1 predicted that participants with high SIM scores would achieve higher individual economic outcomes in integrative negotiations than those with low SIM scores. Linear regression analysis demonstrates a non-significant effect of the scale for integrative mindset on the Pareto efficiency of the individual economic outcome ($\beta = .033$; $p = .733$; VIF = 1.002). Therefore, with a non-significant standardised coefficient of the scale for integrative mindset, which cannot explain the Pareto efficiency of individual economic outcome, the null hypothesis cannot be rejected, and Hypothesis 1.1 cannot be supported. Worth mentioning are the findings of the control variables. Gender significantly affects the Pareto efficiency of the individual economic outcome ($\beta = .335$; $p = .002$). The control variables age ($\beta = .157$; $p = .516$) and professional experience ($\beta = -.264$; $p = .271$) have no significant effect on the Pareto efficiency of the individual economic outcome.

Hypothesis 1.2 predicted that participants with high SIM scores would achieve higher joint economic outcomes in integrative negotiations than those with low SIM scores. Linear regression analysis demonstrates a non-significant effect of the scale for integrative mindset on the Pareto efficiency of the joint economic outcome ($\beta = -.033$; $p = .733$; VIF = 1.002). Therefore, with a non-significant standardised coefficient of the scale for integrative mindset, which cannot explain the Pareto efficiency of joint economic outcome, the null hypothesis cannot be rejected, and Hypothesis 1.2 cannot be supported. Again, worth mentioning are the findings of the control variables. Gender has a significant effect on the Pareto efficiency of the joint economic outcome ($\beta = .377$; $p = .000$). The control variables age ($\beta = .156$; $p = .511$) and professional experience ($\beta = -.191$; $p = .418$) have no significant effect on the Pareto efficiency of the joint economic outcome.

Hypothesis 1.3 predicted that participants with high SIM scores would achieve higher theirs of the counterpart in integrative negotiations than those with low SIM scores. Linear regression analysis demonstrates a non-significant effect of the scale for integrative mindset on SVIs of the counterpart ($\beta = -.061$; $p = .543$; VIF = 1.002). Therefore, with a non-significant standardised coefficient of the scale for integrative mindset, which cannot explain the SVIs of the counterpart, the null hypothesis cannot be rejected, and Hypothesis 1.3 cannot be supported. Additional linear regression analyses demonstrate non-significant effects of the SIM as a predictor of the subscales of the SVI of 'instrumental outcome' ($\beta = -.056$; $p = .578$), 'self' ($\beta = -.117$; $p = .237$), 'process' ($\beta = .005$; $p = .961$), 'relationship' ($\beta = -.008$; $p = .941$), and 'rapport' ($\beta = -.002$; $p = .983$). Findings of the linear regression analysis also show that gender ($\beta = .109$; $p = .305$), age (β

= .265; $p = .290$), and professional experience ($\beta = -.135$; $p = .586$) have no significant effect on the SVIs of the counterpart.

After presenting the findings for Hypotheses H 1.1–H 1.3, the following table summarises the results of linear regression analyses and indicates that the findings do not support all three hypotheses.

| H 1.1: Participants with high SIM scores achieve higher individual economic outcomes in integrative negotiations. | | | | | |
|---------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|---------|------|-----------------------|---------------|
| Independent variable | Dependent variable | β | p | Finding | Result |
| SIM | PIEO | .033 | .733 | No significant effect | Not supported |
| H 1.2: Participants with high SIM scores achieve higher joint economic outcomes in integrative negotiations. | | | | | |
| Independent variable | Dependent variable | β | p | Finding | Result |
| SIM | PJEO | -.033 | .733 | No significant effect | Not supported |
| H 1.3: Participants with high SIM scores achieve higher subjective value inventories (SVI) of the counterpart in integrative negotiations. | | | | | |
| Independent variable | Dependent variable | β | p | Finding | Result |
| SIM | SVI | -.061 | .543 | No significant effect | Not supported |

Table 8: Summary of findings for H 1.1–H 1.3 (devised by the author)

4.2.2 Findings for Hypotheses H 1.4–H 1.8

In addition to examining the scale for integrative mindset as a predictor of the three types of integrative negotiation outcomes, this study examined whether the scale for integrative mindset scores is a predictor of a particular integrative negotiation behaviour – that is, ‘ask questions, [...] address underlying motivations and crucial aspects of viable solutions’ (Ade et al., 2018, p. 5). The relationship between negotiation behaviour and the negotiation outcome,

especially integrative negotiation behaviour and the joint economic outcome, was previously examined by Weingart et al. (1996). According to their results, the behaviours of (a) making multi-issue offers, (b) providing information about priorities across issues, (c) asking questions about priorities, (d) suggesting packaging, and (e) suggesting delayed reciprocity are positively correlated with the joint economic outcome (Weingart et al., 1996, p. 1212). Based on this research gap, the data in this study help to support or not support Hypotheses H 1.4–H 1.8 regarding whether integrative mindsets are a predictor of integrative negotiation behaviour. Standardised coefficients (β), significance (p), and variance inflated factors (VIF) are calculated in linear regression analyses and shown in Table 10 for Hypotheses H 1.4–H 1.8, including control variables of age, gender, and professional experience.

| Independent Variables | Dependent Variables | | | | | | | | | |
|-----------------------------|---------------------|------|-------|------|-------|------|-------|------|-------|------|
| | H 1.4 | | H 1.5 | | H 1.6 | | H 1.7 | | H 1.8 | |
| | β | p | β | p | β | p | β | p | β | p |
| <i>Control variable</i> | | | | | | | | | | |
| Age | .182 | .461 | .097 | .160 | -.017 | .945 | .171 | .160 | -.379 | .134 |
| Gender | .116 | .271 | .244 | .882 | -.061 | .574 | .057 | .882 | .113 | .292 |
| Prof. Experience | .028 | .908 | -.131 | .162 | .132 | .601 | .084 | .162 | .311 | .215 |
| R2 | .073 | | .058 | | .013 | | .076 | | .031 | |
| Adjusted R2 | .044 | | .029 | | -.018 | | .047 | | .001 | |
| ΔR2 | .073 | | .058 | | .013 | | .076 | | .031 | |
| <i>Control variable</i> | | | | | | | | | | |
| Age | .185 | .455 | .089 | .719 | -.028 | .160 | .163 | .160 | -.385 | .160 |
| Gender | .116 | .273 | .244 | .022 | -.061 | .882 | .057 | .882 | .113 | .882 |
| Prof. Experience | .023 | .924 | -.118 | .630 | .149 | .162 | .098 | .162 | .319 | .162 |
| <i>Independent variable</i> | | | | | | | | | | |
| SIM | -.057 | .567 | .155 | .119 | .190 | .998 | .163 | .998 | .094 | .998 |
| R2 | .077 | | .082 | | .049 | | .103 | | .040 | |
| Adjusted R2 | .038 | | .044 | | .009 | | .065 | | -.001 | |
| ΔR2 | .003 | | .024 | | .036 | | .026 | | .009 | |

** . Effect is significant at the 0.01 level; the effect is significant at the 0.05 level.

Table 9: Regression analyses H 1.4–H 1.8 (devised by the author)

Hypothesis 1.4 predicted that participants with high scale for integrative mindset scores would be more likely to make multi-issue offers in integrative negotiations than those with low scale for integrative mindset scores. Linear regression analysis demonstrates a non-significant effect of the scale for integrative mindset on the integrative negotiation behaviour of making multi-issue offers ($\beta = -.057$; $p = .567$; VIF = 1.002). Therefore, with a non-significant standardised coefficient of the scale for integrative mindset, which cannot explain the integrative negotiation behaviour of making multi-issue offers, the null hypothesis cannot be rejected, and Hypothesis 1.4 cannot be supported. Findings of the linear regression analysis also show that gender ($\beta = .116$; $p = .461$), age ($\beta = .182$; $p = .461$), and professional experience ($\beta = .028$; $p = .908$) have no significant effect on the integrative negotiation behaviour of making multi-issue offers.

Hypothesis 1.5 predicted that participants with high scale for integrative mindset scores would be more likely to provide information about priorities across issues in integrative negotiations than those with low scale for integrative mindset scores. Linear regression analysis demonstrates a non-significant effect of the scale for integrative mindset on the integrative negotiation behaviour of providing information about priorities across issues ($\beta = .155$; $p = .119$; VIF = 1.002). Therefore, with a non-significant standardised coefficient of the scale for integrative mindset, which cannot explain the integrative negotiation behaviour of providing information about priorities across issues, the null hypothesis cannot be rejected, and Hypothesis 1.5 cannot be supported. Findings of the linear regression analysis also show that gender ($\beta = .244$; $p = .882$), age ($\beta = .097$; $p = .160$), and professional experience ($\beta = -.131$; $p = .162$) have no significant

effect on the integrative negotiation behaviour of providing information about priorities across issues.

Hypothesis 1.6 predicted that participants with high scale for integrative mindset scores would be more likely to ask questions about priorities in integrative negotiations than those with low scale for integrative mindset scores. Linear regression analysis demonstrates a non-significant effect of the scale for integrative mindset on the integrative negotiation behaviour of asking questions about priorities ($\beta = .190$; $p = .998$; VIF = 1.002). Therefore, with a non-significant standardised coefficient of the scale for integrative mindset, which cannot explain the integrative negotiation behaviour of asking questions about priorities, the null hypothesis cannot be rejected, and Hypothesis 1.6 cannot be supported. Findings of the linear regression analysis also show that gender ($\beta = -.061$; $p = .574$), age ($\beta = -.017$; $p = .945$), and professional experience ($\beta = .132$; $p = .601$) have no significant effect on the integrative negotiation behaviour of asking questions about priorities.

Hypothesis 1.7 predicted that participants with a high scale for integrative mindset scores would be more likely to suggest the discussion of packaging in integrative negotiations than those with a low scale for integrative mindset scores. Linear regression analysis demonstrates a non-significant effect of the scale for integrative mindset on the integrative negotiation behaviour of suggesting the discussion of packaging ($\beta = .163$; $p = .992$; VIF = 1.002). Therefore, with a non-significant standardised coefficient of the scale for integrative mindset, which cannot explain the integrative negotiation behaviour of suggesting the discussion of packaging, the null hypothesis cannot be rejected, and Hypothesis 1.7 cannot

be supported. Findings of the linear regression analysis also show that gender ($\beta = .057$; $p = .882$), age ($\beta = .171$; $p = .160$), and professional experience ($\beta = .084$; $p = .162$) have no significant effect on the integrative negotiation behaviour of suggesting the discussion of packaging.

Hypothesis 1.8 predicted that participants with a high scale for integrative mindset scores would be more likely to suggest delayed reciprocity in integrative negotiations than those with a low scale for integrative mindset scores. Linear regression analysis demonstrates a non-significant effect of the scale for integrative mindset on the integrative negotiation behaviour of suggesting delayed reciprocity ($\beta = .094$; $p = .998$; VIF = 1.002). Therefore, with a non-significant standardised coefficient of the scale for integrative mindset, which cannot explain the integrative negotiation behaviour of suggesting delayed reciprocity, the null hypothesis cannot be rejected, and Hypothesis 1.8 cannot be supported. Findings of the linear regression analysis also show that gender ($\beta = .113$; $p = .292$), age ($\beta = -.379$; $p = .134$), and professional experience ($\beta = .311$; $p = .215$) have no significant effect on the integrative negotiation behaviour of suggesting delayed reciprocity.

After presenting the findings for Hypotheses H 1.4–H 1.8, the following table summarises the results of linear regression analysis and indicates that all five hypotheses are not supported by the findings.

| H 1.4: Participants with high SIM scores will be more likely to make more multi-issue offers. | | | | | |
|--------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------|---------|------|-----------------------|---------------|
| Independent variable | Dependent variable | β | p | Finding | Result |
| SIM | Making multi-issue offers | -.057 | .567 | No significant effect | Not supported |
| H 1.5: Participants with high SIM scores will be more likely to provide more information about priorities across issues. | | | | | |
| Independent variable | Dependent variable | β | p | Finding | Result |
| SIM | Providing information about priorities across issues | .155 | .119 | No significant effect | Not supported |
| H 1.6: Participants with high SIM scores will be more likely to ask more questions about priorities. | | | | | |
| Independent variable | Dependent variable | β | p | Finding | Result |
| SIM | Asking questions about priorities | .190 | .998 | No significant effect | Not supported |
| H 1.7: Participants with high SIM scores will be more likely to suggest the discussion of packaging. | | | | | |
| Independent variable | Dependent variable | β | p | Finding | Result |
| SIM | Suggesting the discussion of packaging | .163 | .998 | No significant effect | Not supported |
| H 1.8: Participants with high SIM scores will be more likely to suggest delayed reciprocity. | | | | | |
| Independent variable | Dependent variable | β | p | Finding | Result |
| SIM | Suggesting delayed reciprocity | .094 | .998 | No significant effect | Not supported |

Table 10: Summary of findings for H 1.4–H 1.8 (devised by the author)

In summary, for Hypotheses 1.1–1.8, there are no significant effects between the SIM score and the dependent variables PIEO, PJEO, SVI, and the integrative negotiation behaviours of (a) making multi-issue offers, (b) providing information about priorities across issues, (c) asking questions about priorities, (d) suggesting packaging, and (e) suggesting delayed reciprocity. Therefore, the null

hypotheses of H 1.1–H 1.8 cannot be rejected, and Hypotheses H 1.1–H 1.8 cannot be supported.

The following section presents the findings regarding the VFT technique of identifying objectives as a predictor of negotiation outcomes.

4.3A Value-Focused Thinking Technique of Identifying Objectives as a Predictor of Negotiation Performance

The treatment in this study consisted of answering a questionnaire in preparation for the negotiation. The questionnaire was provided to the experimental group ($n = 50$). The questionnaire contains a set of 20 questions on 10 dimensions and free text fields for answering the questions. This thesis evaluated the presence or absence of the VFT technique, as in Weingart et al. (1996). The technique was determined as a dichotomous independent variable (present = 2; absent = 1). There were no incomplete records for this questionnaire. Based on the dichotomous independent variable (present = 2; absent = 1) for each participant and individual calculations of the dependent variables (PJEO, PIEO, SVI, absence versus presence of integrative negotiation behaviours), Hypotheses 2.1–2.8 were empirically tested.

First, Pearson's correlation coefficient (cf. Shevlyakov and Oja, 2016, p. 13) was calculated and interpreted according to Cohen's conventional definitions of small (.10), medium (.30), and large (.50) correlations to determine whether there was a significant correlation between the variables. Second, linear regression

analyses were then calculated and interpreted to determine whether the value-focused thinking technique of identifying objectives had a significant effect on the dependent variables.

Table 12 below presents the correlations between the independent variable 'VFT' and the dependent variables PIEO; PJEO; SVI; SVI subscales 'instrumental outcome', 'self', 'process', 'relationship', and 'rapport'; and the behavioural variables (a) making multi-issue offers, (b) providing information about priorities across issues, (c) asking questions about priorities, (d) suggesting packaging, and (e) suggesting delayed reciprocity. Pearson's r value indicates the strength and direction of the linear correlation relationships.

| | | Correlations | | | | | | | | | | | | | | |
|------------------------------------|---------------------------------|--------------|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 |
| SVI of counterpart | 1. Presence of VFT-technique | 1 | .016 | .092 | .258** | .103 | .201* | .227* | .263** | .279** | -.019 | -.141 | .040 | .104 | -.040 | -.020 |
| | 2. PIEO | | 1 | .580** | -.046 | -.097 | .115 | -.036 | -.136 | -.099 | .367** | .252* | .240* | .155 | .289** | .232* |
| | 3. PJEO | | | 1 | .103 | .089 | .257** | .001 | -.038 | -.021 | .380** | .274** | .254* | .243* | .209* | .235* |
| | 4. Total SVI | | | | 1 | .744** | .778** | .818** | .757** | .894** | .007 | -.061 | .218* | .050 | -.037 | -.149 |
| | 5. Instrumental Outcome | | | | | 1 | .458** | .499** | .341** | .475** | -.057 | -.027 | .153 | -.001 | -.083 | -.225* |
| | 6. Self | | | | | | 1 | .512** | .441** | .541** | .015 | .006 | .189 | -.038 | -.050 | -.063 |
| | 7. Process | | | | | | | 1 | .550** | .876** | .124 | -.054 | .198* | .135 | .155 | -.039 |
| | 8. Relationship | | | | | | | | 1 | .884** | -.050 | -.106 | .147 | .055 | -.118 | -.137 |
| | 9. Rapport | | | | | | | | | 1 | .040 | -.091 | .196 | .107 | .019 | -.101 |
| | 10. Integrative Behaviours mean | | | | | | | | | | 1 | .731** | .573** | .610** | .715** | .566** |
| | 11. a) Multi-issue offers | | | | | | | | | | | 1 | .257** | .348** | .462** | .264** |
| | 12. b) Info-priorities | | | | | | | | | | | | 1 | .176 | .280** | .109 |
| | 13. c) Ques-priorities | | | | | | | | | | | | | 1 | .269** | .176 |
| | 14. d) Proc-packaging | | | | | | | | | | | | | | 1 | .264** |
| | 15. e) Proc-reciprocity | | | | | | | | | | | | | | | 1 |
| Integrative Negotiation Behaviours | | | | | | | | | | | | | | | | |

** . Correlation is significant at the 0.01 level (2-tailed).

* . Correlation is significant at the 0.05 level (2-tailed).

Table 11: Correlations for H 2.1–H 2.8 (devised by the author)

First, data correlation analysis demonstrates that there is a non-significant correlation between applying the VFT technique of identifying objectives on the integrative negotiation outcomes of PIEO (.016) and PJEO (.92). Second, data correlation analysis demonstrates that there is a significant correlation between applying the VFT technique of identifying objectives on integrative negotiation outcomes of SVI (.258). Third, data correlation analysis demonstrates that there is a non-significant correlation between applying the VFT technique of identifying objectives on integrative negotiation behaviours of making multi-issue offers (-.141), providing information about priorities across issues (.040), asking questions about priorities (.104), suggesting the discussion of packaging (.040), and suggesting delayed reciprocity (-.020).

4.3.1 Findings for Hypotheses H 2.1–H 2.3

As this thesis aims to generate knowledge on the application of the VFT technique of identifying objectives in an experimental negotiation setting and to understand how this technique can predict negotiation performance, the data in this study serve to reject or corroborate the hypotheses. It is argued that negotiators who employ this technique have an advantage and achieve superior negotiation outcomes. This argument is based on Keeney's theory that VFT should provide support in integrative negotiations (Keeney, 1992; Keeney, 1994; Keeney, 1996). Data in this study help to support or not support Hypotheses H 2.1–H 2.3. Standardised coefficients (β), significance (p), and variance inflated factors (VIF) are calculated in linear regression analyses and presented in the

following table for Hypotheses H 2.1–H 2.3, including the control variables of age, gender, and professional experience.

| Independent Variables | Dependent Variables | | | | | |
|------------------------------|---------------------|--------|--------------|--------|-------------|-------|
| | H 2.1 (PIEO) | | H 2.2 (PJEO) | | H 2.3 (SVI) | |
| | β | p | β | p | β | p |
| <i>Control variables</i> | | | | | | |
| Age | .157 | .516 | .156 | .511 | .265 | .290 |
| Gender | .335 | .002** | .337 | .000** | .109 | .305 |
| Professional Experience | -.264 | .271 | -.191 | .418 | -.135 | .586 |
| R2 | .109 | | .142 | | .045 | |
| Adjusted R2 | .082 | | .115 | | .015 | |
| $\Delta R2$ | .109 | | .142 | | .045 | |
| <i>Control variables</i> | | | | | | |
| Age | .162 | .507 | .146 | .540 | .218 | .372 |
| Gender | .337 | .002** | .317 | .000** | .084 | .420 |
| Professional Experience | -.270 | .266 | -.181 | .447 | -.084 | .728 |
| <i>Independent variables</i> | | | | | | |
| VFT technique | -.024 | .804 | .049 | .610 | .242 | .015* |
| R2 | .110 | | .144 | | .103 | |
| Adjusted R2 | .073 | | .108 | | .065 | |
| $\Delta R2$ | .001 | | .002 | | .057 | |

** . The effect is significant at the 0.01 level.

* . The effect is significant at the 0.05 level.

Table 12: Linear regression analyses H 2.1–H 2.3 (devised by the author)

Hypothesis 2.1 predicted that participants applying the VFT technique of identifying objectives would achieve higher individual economic outcomes in integrative negotiations than those foregoing this technique. Linear regression analysis demonstrates a non-significant effect of the deployment of the VFT technique of identifying objectives on the Pareto efficiency of the individual economic outcome ($\beta = -.024$; $p = .804$; VIF = 1.018). Therefore, with a non-significant standardised coefficient of applying the VFT technique of identifying objectives, which cannot explain the Pareto efficiency of the individual economic outcome, the null hypothesis cannot be rejected, and Hypothesis 2.1 cannot be supported. Worth mentioning are the findings of the control variables. Gender has a significant effect on the Pareto efficiency of the individual economic outcome (β

= .335; $p = .002$). The control variables age ($\beta = .157$; $p = .516$) and professional experience ($\beta = -.264$; $p = .271$) have no significant effect on the Pareto efficiency of the individual economic outcome.

Hypothesis 2.2 predicted that participants applying the VFT technique of identifying objectives would achieve higher joint economic outcomes in integrative negotiations than those foregoing this technique. Linear regression analysis demonstrates a non-significant effect of the deployment of the VFT technique of identifying objectives on the Pareto efficiency of the joint economic outcome ($\beta = -.049$; $p = .610$; VIF = 1.018). Therefore, with a non-significant standardised coefficient of applying the VFT technique of identifying objectives, which cannot explain the Pareto efficiency of the joint economic outcome, the null hypothesis cannot be rejected, and Hypothesis 2.2 cannot be supported. Worth mentioning are the findings of the control variables. Gender has a significant effect on the Pareto efficiency of the joint economic outcome ($\beta = .337$; $p = .000$). The control variables age ($\beta = .155$; $p = .511$) and professional experience ($\beta = -.191$; $p = .418$) have no significant effect on the Pareto efficiency of the joint economic outcome.

Hypothesis 2.3 predicted that participants applying the VFT technique of identifying objectives would achieve higher SVI of the counterpart in integrative negotiations than those foregoing this technique. Linear regression analysis demonstrates a significant effect of the deployment of the VFT technique of identifying objectives on the SVI of the counterpart ($\beta = .242$; $p = .015$; VIF = 1.018). Therefore, with a significant standardised coefficient of applying the VFT technique of identifying objectives, which can predict the SVI of the counterpart,

the null hypothesis can be rejected, and Hypothesis 2.3 can be supported. Additional linear regression analyses demonstrate significant effects of the VFT technique of identifying objectives as a predictor of the subscales of the SVI of 'process' ($\beta = .228$; $p = .024$), 'relationship' ($\beta = .250$; $p = .013$), and 'rapport' ($\beta = .272$; $p = .007$), as well as non-significant effects of the VFT technique of identifying objectives as a predictor of the subscales of the SVI of 'instrumental outcome' ($\beta = .087$; $p = .393$) and 'self' ($\beta = .179$; $p = .073$). Findings of the linear regression analysis also show that gender ($\beta = .109$; $p = .305$), age ($\beta = .265$; $p = .290$), and professional experience ($\beta = -.135$; $p = .586$) have no significant effect on the SVI of the counterpart.

After presenting the findings for Hypotheses H 2.1–H 2.3, the following table summarises the results of the linear regression analysis and indicates that H 2.3 is supported, while H 2.1 and H 2.2 are not supported.

| H 2.1: Participants applying the VFT technique of identifying objectives achieve higher individual economic outcomes in integrative negotiations. | | | | | |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|---------|------|-----------------------|---------------|
| Independent variable | Dependent variable | β | p | Finding | Result |
| VFT technique of identifying objectives | PIEO | -.024 | .804 | No significant effect | Not supported |
| H 2.2: Participants applying the VFT technique of identifying objectives achieve higher joint economic outcomes in integrative negotiations. | | | | | |
| Independent variable | Dependent variable | β | p | Finding | Result |
| VFT technique of identifying objectives | PJEO | .049 | .610 | No significant effect | Not supported |
| H 2.3: Participants applying the VFT technique of identifying objectives achieve higher subjective value inventories of the counterpart in integrative negotiations. | | | | | |
| Independent variable | Dependent variable | β | p | Finding | Result |
| VFT technique of identifying objectives | SVI | .242 | .015 | Significant effect | Supported |

Table 13: Summary of findings for H 2.1–H 2.3 (devised by the author)

4.3.2 Findings for Hypotheses H 2.4–H 2.8

In addition to examining the presence or absence of VFT as a predictor of negotiation outcomes, this study examined whether the presence or absence of the VFT technique of identifying objectives is also a predictor of a particular integrative negotiation behaviour (cf. Weingart et al., 1996, p. 1214). The data thereby serve to support or not support the hypotheses. Standardised coefficients (β), significance (p), and variance inflated factors (VIF) are calculated in linear regression analyses and shown in the following table for Hypotheses H 2.4–H 2.8, including control variables of age, gender, and professional experience.

| Independent Variables | Dependent Variables | | | | | | | | | |
|-----------------------------------------|---------------------|------|---------|-------|---------|------|---------|------|---------|------|
| | H 2.4 | | H 2.5 | | H 2.6 | | H 2.7 | | H 2.8 | |
| | β | p | β | p | β | p | β | p | β | p |
| <i>Control variables</i> | | | | | | | | | | |
| Age | .182 | .461 | .097 | .696 | -.017 | .945 | .171 | .486 | -.379 | .134 |
| Gender | .116 | .271 | .244 | .023* | -.061 | .574 | .057 | .584 | .113 | .292 |
| Prof. Experience | .028 | .908 | -.131 | .594 | .132 | .601 | .084 | .730 | .311 | .215 |
| R2 | .073 | | .058 | | .013 | | .076 | | .031 | |
| Adjusted R2 | .044 | | .029 | | -.018 | | .047 | | .001 | |
| Δ R2 | .073 | | .058 | | .013 | | .076 | | .031 | |
| <i>Control variables</i> | | | | | | | | | | |
| Age | .213 | .384 | .095 | .705 | -.039 | .887 | .182 | .463 | -.376 | .141 |
| Gender | .133 | .206 | .243 | .025 | -.073 | .504 | .063 | .552 | .115 | .289 |
| Prof. Experience | -.006 | .980 | -.129 | .604 | .156 | .538 | .073 | .767 | .307 | .225 |
| <i>Independent variables</i> | | | | | | | | | | |
| VFT technique of identifying objectives | -.162 | .105 | .012 | .908 | .112 | .273 | -.053 | .594 | -.018 | .857 |
| R2 | .099 | | .058 | | .025 | | .079 | | .031 | |
| Adjusted R2 | .061 | | .019 | | -.016 | | .040 | | -.010 | |
| Δ R2 | .026 | | .000 | | .012 | | .003 | | .000 | |

** . Effect is significant at the 0.01 level.

* . Effect is significant at the 0.05 level.

Table 14: Linear regression analyses H 2.4–H 2.8 (devised by the author)

Hypothesis 2.4 predicted that participants applying the VFT technique of identifying objectives would be more likely to make multi-issue offers in integrative

negotiations than those foregoing this technique. Linear regression analysis demonstrates a non-significant effect of the VFT technique of identifying objectives on the integrative negotiation behaviour of making multi-issue offers ($\beta = -.162$; $p = .105$; VIF = 1.018). Therefore, with a non-significant standardised coefficient of applying the VFT technique of identifying objectives, which cannot explain the integrative negotiation behaviour of making multi-issue offers, the null hypothesis cannot be rejected, and Hypothesis 2.4 cannot be supported. Findings of the linear regression analysis also show that gender ($\beta = .116$; $p = .461$), age ($\beta = .182$; $p = .461$), and professional experience ($\beta = .028$; $p = .908$) have no significant effect on the integrative negotiation behaviour of making multi-issue offers.

Hypothesis 2.5 predicted that participants applying the VFT technique of identifying objectives would be more likely to provide information about priorities across issues in integrative negotiations than those foregoing this technique. Linear regression analysis demonstrates a non-significant effect of the VFT technique of identifying objectives on the integrative negotiation behaviour of providing information about priorities across issues ($\beta = .012$; $p = .908$; VIF = 1.018). Therefore, with a non-significant standardised coefficient of applying the VFT technique of identifying objectives, which cannot explain the integrative negotiation behaviour of providing information about priorities across issues, the null hypothesis cannot be rejected, and Hypothesis 2.5 cannot be supported. Worth mentioning are the findings of the control variables. Gender has a significant effect on the behaviour of providing information about priorities across issues ($\beta = .224$; $p = .023$). The control variables age ($\beta = .097$; $p = .696$) and professional experience ($\beta = -.131$; $p = .594$) do not significantly affect the

integrative negotiation behaviour of providing information about priorities across issues.

Hypothesis 2.6 predicted that participants applying the VFT technique of identifying objectives would be more likely to ask questions about priorities in integrative negotiations than those foregoing this technique. Linear regression analysis demonstrates a non-significant effect of the VFT technique of identifying objectives on the integrative negotiation behaviour of asking questions about priorities ($\beta = .012$; $p = .273$; VIF = 1.018). Therefore, with a non-significant standardised coefficient of applying the VFT technique of identifying objectives, which cannot explain the integrative negotiation behaviour of asking questions about priorities, the null hypothesis cannot be rejected, and Hypothesis 2.6 cannot be supported. Findings of the linear regression analysis also show that gender ($\beta = -.061$; $p = .574$), age ($\beta = -.017$; $p = .945$), and professional experience ($\beta = .132$; $p = .601$) have no significant effect on the integrative negotiation behaviour of asking questions about priorities.

Hypothesis 2.7 predicted that participants applying the VFT technique of identifying objectives would be more likely to suggest the discussion of packaging in integrative negotiations than those foregoing this technique. Linear regression analysis demonstrates a non-significant effect of the VFT technique of identifying objectives on the integrative negotiation behaviour of suggesting the discussion of packaging ($\beta = -.053$; $p = .594$; VIF = 1.018). Therefore, with a non-significant standardised coefficient of applying the VFT technique of identifying objectives, which cannot explain the integrative negotiation behaviour of suggesting the discussion of packaging, the null hypothesis cannot be rejected, and Hypothesis

2.7 cannot be supported. Findings of the linear regression analysis also show that gender ($\beta = .057$; $p = .584$), age ($\beta = .171$; $p = .486$), and professional experience ($\beta = .084$; $p = .740$) have no significant effect on the integrative negotiation behaviour of suggesting the discussion of packaging.

Hypothesis 2.8 predicted that participants applying the VFT technique of identifying objectives would more likely suggest delayed reciprocity in integrative negotiations than those foregoing this technique. Linear regression analysis demonstrates a non-significant effect of the VFT technique of identifying objectives on the integrative negotiation behaviour of suggesting delayed reciprocity ($\beta = -.018$; $p = .857$; VIF = 1.018). Therefore, with a non-significant standardised coefficient of applying the VFT technique of identifying objectives, which cannot explain the integrative negotiation behaviour of suggesting delayed reciprocity, the null hypothesis cannot be rejected, and Hypothesis 2.8 cannot be supported. Findings of the linear regression analysis also show that gender ($\beta = .113$; $p = .292$), age ($\beta = -.379$; $p = .134$), and professional experience ($\beta = .311$; $p = .215$) have no significant effect on the integrative negotiation behaviour of suggesting delayed reciprocity.

After presenting the findings for Hypotheses H 2.4–H 2.8, the following table summarises the results of the linear regression analyses and indicates that all five hypotheses are not supported by the findings.

| H 2.4: Participants applying the VFT technique of identifying objectives will be more likely to make more multi-issue offers. | | | | | |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------|---------|------|-----------------------|---------------|
| Independent variable | Dependent variable | β | p | Finding | Result |
| VFT technique of identifying objectives | Making multi-issue offers | -.162 | .105 | No significant effect | Not supported |
| H 2.5: Participants applying the VFT technique of identifying objectives will be more likely to provide more information about priorities across issues. | | | | | |
| Independent variable | Dependent variable | β | p | Finding | Result |
| VFT technique of identifying objectives | Providing information about priorities across issues | .012 | .908 | No significant effect | Not supported |
| H 2.6: Participants applying the VFT technique of identifying objectives will be more likely to ask more questions about priorities. | | | | | |
| Independent variable | Dependent variable | β | p | Finding | Result |
| VFT technique of identifying objectives | Asking questions about priorities | .112 | .273 | No significant effect | Not supported |
| H 2.7: Participants applying the VFT technique of identifying objectives will be more likely to suggest the discussion of packaging. | | | | | |
| Independent variable | Dependent variable | β | p | Finding | Result |
| VFT technique of identifying objectives | Suggesting the discussion of packaging | -.053 | .594 | No significant effect | Not supported |
| H 2.8: Participants applying the VFT technique of identifying objectives will be more likely to suggest delayed reciprocity. | | | | | |
| Independent variable | Dependent variable | β | p | Finding | Result |
| VFT technique of identifying objectives | Suggesting delayed reciprocity | -.018 | .857 | No significant effect | Not supported |

Table 15: Summary of findings for H 2.4–H 2.8 (devised by the author)

In summary, for Hypotheses 2.1–2.8, there is one significant effect between the VFT technique of identifying objectives and the dependent variables PIEO, PJEO, and SVI: Hypothesis 2.3 predicted that participants applying the VFT technique would achieve higher SVI of the counterpart in integrative negotiations than those foregoing this technique. The data indeed suggest that applying the

VFT technique of identifying objectives has a significant effect on the SVI of the counterpart ($\beta = .242$; $p = .015$). Accordingly, Hypothesis 2.3 is supported.

The following section presents the findings regarding integrative negotiation behaviours as predictors for negotiation outcomes.

4.4 Integrative Negotiation Behaviours as a Predictor for Negotiation Outcomes

According to previous research, the negotiation behaviours of (a) making multi-issue offers, (b) providing information about priorities across issues, (c) asking questions about priorities, (d) suggesting packaging, and (e) suggesting delayed reciprocity are positively correlated with the Pareto efficiency of the joint economic outcome (Weingart et al., 1996, p. 1214). In Weingart's study, each behaviour was treated as a dichotomous variable (present = 2; absent = 1). Thus, this study further extends the work of Weingart (1996) by differentiating the negotiation outcome with three dependent variables: PIEO, PJEO, and SVI of the counterpart.

This thesis evaluated the presence or absence of the integrative negotiation behaviours prescribed by Weingart et al. (1996). The behaviours were determined as dichotomous independent variables (present = 2; absent = 1). Based on these dichotomous independent variables for each participant and individual calculations of dependent variables (PJEO, PIEO, SVI), Hypotheses 3.1–3.15 were empirically tested.

First, Pearson's correlation coefficient (cf. Shevlyakov and Oja, 2016, p. 13) was calculated and interpreted according to Cohen's conventional definitions of small (.10), medium (.30), and large (.50) correlations to determine whether there was a significant correlation between the variables. Second, linear regression analyses were then calculated and interpreted to determine if the integrative negotiation behaviours had a significant effect on the dependent variables. The table below presents the correlations between the independent variables of the integrative negotiation behaviours of (a) making multi-issue offers, (b) providing information about priorities across issues, (c) asking questions about priorities, (d) suggesting packaging, and (e) suggesting delayed reciprocity and the dependent variables PIEO, PJEO, and SVI. Pearson's r value indicates the strength and direction of the linear correlation relationships.

| | | Correlations | | | | | | | |
|------------------------------------|---------------------------------------------------------|---------------------|--------|--------|--------|--------|--------|--------|-------|
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| Integrative Negotiation Behaviours | 1. Making multi-issue offers | 1 | .257** | .348** | .462** | .264** | .252* | .274** | -.061 |
| | 2. Providing information about priorities across issues | | 1 | .176 | .280** | .019 | .240* | .254* | .218* |
| | 3. Asking questions about priorities | | | 1 | .269** | .176 | .155 | .243* | .050 |
| | 4. Suggesting packaging | | | | 1 | .264** | .289** | .208* | -.037 |
| | 5. Suggesting delayed reciprocity | | | | | 1 | .232* | .235* | -.149 |
| Negotiation Outcomes | 6. PIEO | | | | | | 1 | .580** | -.046 |
| | 7. PJEO | | | | | | | 1 | .103 |
| | 8. SVI | | | | | | | | 1 |

** . Correlation is significant at the 0.01 level (2-tailed).

* . Correlation is significant at the 0.05 level (2-tailed).

Table 16: Correlations for H 3.1–H 3.15 (devised by the author)

First, data correlation analysis demonstrates that there are significant correlations between the integrative negotiation behaviour of making multi-issue offers on integrative negotiation outcomes of the PIEO (.252) and PJEO (.274) and a non-significant correlation of the integrative negotiation behaviour of making multi-issue offers on the integrative negotiation outcome of SVI (-.061). Second, data correlation analysis demonstrates that there are significant correlations of the integrative negotiation behaviour of providing information about priorities across issues on integrative negotiation outcomes of the PIEO (.252), PJEO (.274), and SVI (.218). Third, data correlation analysis demonstrates that there is a significant correlation of the integrative negotiation behaviour of asking questions about priorities on integrative negotiation outcomes of the PJEO (.243) and non-significant correlations of the integrative negotiation behaviour of asking questions about priorities on integrative negotiation outcomes of the PIEO (.155) and SVI (-.061). Fourth, data correlation analysis demonstrates that there are significant correlations of the integrative negotiation behaviour of suggesting packaging on integrative negotiation outcomes of the PIEO (.289) and PJEO (.208) and a non-significant correlation of the integrative negotiation behaviour of suggesting packaging on integrative negotiation outcomes of SVI (-.037). Finally, data correlation analysis demonstrates that there are significant correlations of the integrative negotiation behaviour of suggesting delayed reciprocity on integrative negotiation outcomes of the PIEO (.232) and PJEO (.235) and a non-significant correlation of the integrative negotiation behaviour of suggesting delayed reciprocity offers on integrative negotiation outcomes of SVI (-.149).

4.4.1 Findings for Hypotheses H 3.1–H 3.3

Standardised coefficients (β), significance (p), and variance inflated factors (VIF) are calculated in linear regression analyses and shown in the following table for Hypotheses H 3.1–H 3.3, including control variables of age, gender, and professional experience.

| Independent Variables | Dependent Variables | | | | | |
|------------------------------|---------------------|--------|--------------|--------|-------------|------|
| | H 3.1 (PIEO) | | H 3.2 (PJEO) | | H 3.3 (SVI) | |
| | β | p | β | p | β | p |
| <i>Control variables</i> | | | | | | |
| Age | .157 | .516 | .156 | .511 | .265 | .290 |
| Gender | .335 | .002** | .337 | .000** | .109 | .305 |
| Professional Experience | -.264 | .271 | -.191 | .418 | -.135 | .586 |
| R2 | .109 | | .142 | | .045 | |
| Adjusted R2 | .082 | | .115 | | .015 | |
| $\Delta R2$ | .109 | | .142 | | .045 | |
| <i>Control variables</i> | | | | | | |
| Age | .115 | .626 | .115 | .621 | .288 | .251 |
| Gender | .308 | .003** | .350 | .001** | .124 | .248 |
| Professional Experience | -.271 | .249 | -.197 | .392 | -.132 | .595 |
| <i>Independent variables</i> | | | | | | |
| Making multi-issue offers | .229 | .021* | .226 | .021* | -.149 | .230 |
| R2 | .158 | | .189 | | .060 | |
| Adjusted R2 | .123 | | .115 | | .020 | |
| $\Delta R2$ | .049 | | .047 | | .014 | |

** . Effect is significant at the 0.01 level.

* . Effect is significant at the 0.05 level.

Table 17: Linear regression analyses H 3.1–H 3.3 (devised by the author)

Hypothesis 3.1 predicted that participants applying the integrative negotiation behaviour of making multi-issue offers achieve higher individual economic outcomes in integrative negotiations. Linear regression analysis demonstrates a significant effect of the application of making multi-issue offers on the Pareto efficiency of the individual economic outcome ($\beta = .229$; $p = .021$; VIF = 1.079). Therefore, with a significant standardised coefficient of the integrative negotiation

behaviour of making multi-issue offers, which can explain the PIEO, the null hypothesis can be rejected, and Hypothesis 3.1 can be supported. Worth mentioning are the findings of the control variables. Gender has a significant effect on the Pareto efficiency of the individual economic outcome ($\beta = .335$; $p = .002$). The control variables age ($\beta = .157$; $p = .516$) and professional experience ($\beta = -.264$; $p = .271$) have no significant effect on the Pareto efficiency of the individual economic outcome.

Hypothesis 3.2 predicted that participants applying the integrative negotiation behaviour of making multi-issue offers achieve higher joint economic outcomes in integrative negotiations. Linear regression analysis demonstrates a significant effect of the application of making multi-issue offers on the Pareto efficiency of the joint economic outcome ($\beta = .226$; $p = .021$; VIF = 1.079). Therefore, with a significant standardised coefficient of the integrative negotiation behaviour of making multi-issue offers, which can explain the Pareto efficiency of joint economic outcome, the null hypothesis can be rejected, and Hypothesis 3.2 can be supported. Worth mentioning are the findings of the control variables. Gender has a significant effect on the Pareto efficiency of the joint economic outcome ($\beta = .337$; $p = .000$). The control variables age ($\beta = .156$; $p = .511$) and professional experience ($\beta = -.191$; $p = .418$) have no significant effect on the Pareto efficiency of the joint economic outcome.

Hypothesis 3.3 predicted that participants applying the integrative negotiation behaviour of making multi-issue offers achieve higher subjective value inventories of the counterpart in integrative negotiations. Linear regression analysis demonstrates a non-significant effect of the application of making multi-

issue offers on the SVIs of the counterpart ($\beta = -.149$; $p = .230$; VIF = 1.079). Therefore, with a non-significant standardised coefficient of the integrative negotiation behaviour of making multi-issue offers, which cannot explain the SVIs of the counterpart, the null hypothesis cannot be rejected, and Hypothesis 3.3 cannot be supported. Additional linear regression analyses demonstrate non-significant effects of the application of making multi-issue offers as a predictor of the subscales of the SVI of 'instrumental outcome' ($\beta = -.078$; $p = .457$), 'self' ($\beta = -.058$; $p = .578$), 'process' ($\beta = -.096$; $p = .363$), 'relationship' ($\beta = -.151$; $p = .149$), and 'rapport' ($\beta = -.141$; $p = .180$). Findings of the linear regression analysis also show that gender ($\beta = .109$; $p = .305$), age ($\beta = .265$; $p = .290$), and professional experience ($\beta = -.135$; $p = .586$) have no significant effect on the SVIs of the counterpart.

After presenting the findings for Hypotheses H 3.1–H 3.3, the following table summarises the results of linear regression analyses and indicates that two out of the three hypotheses are supported by the findings.

| H 3.1: Participants applying the integrative negotiation behaviour of making multi-issue offers achieve higher individual economic outcomes in integrative negotiations. | | | | | |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|---------|------|-----------------------|---------------|
| Independent variable | Dependent variable | β | p | Finding | Result |
| Making multi-issue offers | PIEO | .229 | .021 | Significant effect | Supported |
| H 3.2: Participants applying the integrative negotiation behaviour of making multi-issue offers achieve higher joint economic outcomes in integrative negotiations. | | | | | |
| Independent variable | Dependent variable | β | p | Finding | Result |
| Making multi-issue offers | PJEO | .226 | .021 | Significant effect | Supported |
| H 3.3: Participants applying the integrative negotiation behaviour of making multi-issue offers achieve higher subjective value inventories of the counterpart in integrative negotiations. | | | | | |
| Independent variable | Dependent variable | β | p | Finding | Result |
| Making multi-issue offers | SVI | -.149 | .230 | No significant effect | Not supported |

Table 18: Summary of findings for H 3.1–H 3.3 (devised by the author)

4.4.2 Findings for Hypotheses H 3.4 - H 3.6

Standardised coefficients (β), significance (p), and variance inflated factors (VIF) are calculated in linear regression analyses and shown in the following table for Hypotheses H 3.4–H 3.4, including control variables of age, gender, and professional experience.

| Independent Variables | Dependent Variables | | | | | |
|------------------------------------------------------|---------------------|--------|--------------|--------|-------------|------|
| | H 3.4 (PIEO) | | H 3.5 (PJEO) | | H 3.6 (SVI) | |
| | β | p | β | p | β | p |
| <i>Control variables</i> | | | | | | |
| Age | .157 | .516 | .156 | .511 | .265 | .290 |
| Gender | .335 | .002** | .337 | .000** | .109 | .305 |
| Professional Experience | -.264 | .271 | -.191 | .418 | -.135 | .586 |
| R2 | .109 | | .142 | | .045 | |
| Adjusted R2 | .082 | | .115 | | .015 | |
| $\Delta R2$ | .109 | | .142 | | .045 | |
| <i>Control variables</i> | | | | | | |
| Age | .140 | .558 | .139 | .553 | .247 | .319 |
| Gender | .293 | .006** | .334 | .002** | .062 | .563 |
| Professional Experience | -.242 | .310 | -.168 | .471 | -.110 | .654 |
| <i>Independent variable</i> | | | | | | |
| Providing information about priorities across issues | .172 | .083 | .173 | .076 | .193 | .061 |
| R2 | .137 | | .170 | | .080 | |
| Adjusted R2 | .101 | | .135 | | .041 | |
| $\Delta R2$ | .028 | | .028 | | .035 | |

** . Effect is significant at the 0.01 level.

* . Effect is significant at the 0.05 level.

Table 19: Linear regression analyses H 3.4–H 3.6 (devised by the author)

Hypothesis 3.4 predicted that participants applying the integrative negotiation behaviour of providing information about priorities across issues achieve higher individual economic outcomes in integrative negotiations. Linear regression analysis demonstrates a non-significant effect of the application of providing information about priorities across issues on the Pareto efficiency of the individual economic outcome ($\beta = .172$; $p = .083$; VIF = 1.062). Therefore, with a standardised coefficient of the integrative negotiation behaviour of providing

information about priorities across issues, which cannot significantly explain the Pareto efficiency of the individual economic outcome, the null hypothesis cannot be rejected, and Hypothesis 3.4 cannot be supported. Worth mentioning are the findings of the control variables. Gender has a significant effect on the Pareto efficiency of the individual economic outcome ($\beta = .335$; $p = .002$). The control variables age ($\beta = .157$; $p = .516$) and professional experience ($\beta = -.264$; $p = .271$) have no significant effect on the Pareto efficiency of the individual economic outcome.

Hypothesis 3.5 predicted that participants applying the integrative negotiation behaviour of providing information about priorities across issues achieve higher joint economic outcomes in integrative negotiations. Linear regression analysis demonstrates a non-significant effect of the application of providing information about priorities across issues on the Pareto efficiency of the joint economic outcome ($\beta = .173$; $p = .075$; VIF = 1.062). Therefore, with a standardised coefficient of the integrative negotiation behaviour of providing information about priorities across issues, which cannot significantly explain the Pareto efficiency of the joint economic outcome, the null hypothesis cannot be rejected, and Hypothesis 3.5 cannot be supported. Worth mentioning are the findings of the control variables. Gender has a significant effect on the Pareto efficiency of the joint economic outcome ($\beta = .337$; $p = .000$). The control variables age ($\beta = .156$; $p = .511$) and professional experience ($\beta = -.191$; $p = .418$) have no significant effect on the Pareto efficiency of the joint economic outcome.

Hypothesis 3.6 predicted that participants applying the integrative negotiation behaviour of providing information about priorities across issues achieve higher

subjective value inventories of the counterpart in integrative negotiations. Linear regression analysis demonstrates a non-significant effect of the application of providing information about priorities across issues on the SVIs of the counterpart ($\beta = .193$; $p = .061$; VIF = 1.062). Therefore, with a non-significant standardised coefficient of the integrative negotiation behaviour of providing information about priorities across issues, which cannot explain the SVIs of the counterpart, the null hypothesis cannot be rejected, and Hypothesis 3.6 cannot be supported. Additional linear regression analyses demonstrate one significant effect of the application of the integrative negotiation behaviour of providing information about priorities across issues as a predictor of the subscale of the SVI of 'process' ($\beta = .205$; $p = .045$) and non-significant effects of the application of the integrative negotiation behaviour of providing information about priorities across issues as a predictor of the subscales of the SVI of 'instrumental outcome' ($\beta = .132$; $p = .202$), 'self' ($\beta = .143$; $p = .163$), 'relationship' ($\beta = .128$; $p = .219$), and 'rapport' ($\beta = .189$; $p = .069$). Findings of the linear regression analysis also show that gender ($\beta = .109$; $p = .305$), age ($\beta = .265$; $p = .290$), and professional experience ($\beta = -.135$; $p = .586$) have no significant effect on the SVIs of the counterpart.

After presenting the findings for Hypotheses H 3.3–H 3.6, the following table summarises the results of the linear regression analyses and indicates that none of the three hypotheses is supported by the findings.

| H 3.4: Participants applying the integrative negotiation behaviour of providing information about priorities across issues achieve higher individual economic outcomes in integrative negotiations. | | | | | |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|---------|------|-----------------------|---------------|
| Independent variable | Dependent variable | β | p | Finding | Result |
| Providing information about priorities across issues | PIEO | .172 | .083 | No significant effect | Not supported |
| H 3.5: Participants applying the integrative negotiation behaviour of providing information about priorities across issues achieve higher joint economic outcomes in integrative negotiations. | | | | | |
| Independent variable | Dependent variable | β | p | Finding | Result |
| Providing information about priorities across issues | PJEO | .173 | .076 | No significant effect | Not supported |
| H 3.6: Participants applying the integrative negotiation behaviour of providing information about priorities across issues achieve higher subjective value inventories of the counterpart in integrative negotiations. | | | | | |
| Independent variable | Dependent variable | β | p | Finding | Result |
| Providing information about priorities across issues | SVI | .193 | .061 | No significant effect | Not supported |

Table 20: Summary of findings for H 3.4–H 3.6 (devised by the author)

4.4.3 Findings for Hypotheses H 3.7–H 3.9

Standardised coefficients (β), significance (p), and variance inflated factors (VIF) are calculated in linear regression analyses and shown in the following table for Hypotheses H 3.7–H 3.9, including control variables of age, gender, and professional experience.

| Independent Variables | Dependent Variables | | | | | |
|-----------------------------------|---------------------|--------|--------------|--------|-------------|------|
| | H 3.7 (PIEO) | | H 3.8 (PJEO) | | H 3.9 (SVI) | |
| | β | p | β | p | β | p |
| <i>Control variables</i> | | | | | | |
| Age | .157 | .516 | .156 | .511 | .265 | .290 |
| Gender | .335 | .002** | .337 | .000** | .109 | .305 |
| Professional Experience | -.264 | .271 | -.191 | .418 | -.135 | .586 |
| R2 | .109 | | .142 | | .045 | |
| Adjusted R2 | .082 | | .115 | | .015 | |
| $\Delta R2$ | .109 | | .142 | | .045 | |
| <i>Control variables</i> | | | | | | |
| Age | .160 | .502 | .160 | .483 | .226 | .291 |
| Gender | .346 | .001** | .392 | .000** | .112 | .297 |
| Professional Experience | -.288 | .226 | -.225 | .323 | -.141 | .572 |
| <i>Independent variables</i> | | | | | | |
| Asking questions about priorities | .178 | .065 | .216 | .005** | .044 | .661 |
| R2 | .141 | | .209 | | .057 | |
| Adjusted R2 | .105 | | .176 | | .007 | |
| $\Delta R2$ | .031 | | .067 | | .002 | |

** . Effect is significant at the 0.01 level.

* . Effect is significant at the 0.05 level.

Table 21: Linear regression analyses H 3.7–H 3.9 (devised by the author)

Hypothesis 3.7 predicted that participants applying the integrative negotiation behaviour of asking questions about priorities achieve higher individual economic outcomes in integrative negotiations. Linear regression analysis demonstrates a non-significant effect of the application of asking questions about priorities on the Pareto efficiency of the individual economic outcome ($\beta = .178$; $p = .065$; VIF = 1.013). Therefore, with a non-significant standardised coefficient of the integrative negotiation behaviour of asking questions about priorities, which cannot significantly explain the Pareto efficiency of the individual economic outcome, the null hypothesis cannot be rejected, and Hypothesis 3.7 cannot be supported. Worth mentioning are the findings of the control variables. Gender has a significant effect on the Pareto efficiency of the individual economic outcome ($\beta = .335$; $p = .002$). The control variables age ($\beta = .157$; $p = .516$) and professional

experience ($\beta = -.264$; $p = .271$) have no significant effect on the Pareto efficiency of the individual economic outcome.

Hypothesis 3.8 predicted that participants applying the integrative negotiation behaviour of asking questions about priorities achieve higher joint economic outcomes in integrative negotiations. Linear regression analysis demonstrates a significant effect of the application of asking questions about priorities on the Pareto efficiency of the joint economic outcome ($\beta = .261$; $p = .005$; VIF = 1.013). Therefore, with a standardised coefficient of the integrative negotiation behaviour of asking questions about priorities, which can significantly explain the Pareto efficiency of the joint economic outcome, the null hypothesis can be rejected, and Hypothesis 3.8 can be supported. Worth mentioning are the findings of the control variables. Gender has a significant effect on the Pareto efficiency of the joint economic outcome ($\beta = .337$; $p = .000$). The control variables age ($\beta = .156$; $p = .511$) and professional experience ($\beta = -.191$; $p = .418$) have no significant effect on the Pareto efficiency of the joint economic outcome.

Hypothesis 3.9 predicted that participants applying the integrative negotiation behaviour of asking questions about priorities achieve higher subjective value inventories of the counterpart in integrative negotiations. Linear regression analysis demonstrates a non-significant effect of the application of asking questions about priorities on the SVIs of the counterpart ($\beta = .044$; $p = .661$; VIF = 1.013). Therefore, with a non-significant standardised coefficient of the integrative negotiation behaviour of asking questions about priorities, which cannot explain the SVIs of the counterpart, the null hypothesis cannot be rejected, and Hypothesis 3.9 cannot be supported. Additional linear regression analyses

demonstrate non-significant effects of the application of the integrative negotiation behaviour of asking questions about priorities as a predictor of the subscales of the SVI of 'instrumental outcome' ($\beta = -.006$; $p = .951$), 'self' ($\beta = -.040$; $p = .692$), 'process' ($\beta = .123$; $p = .229$), 'relationship' ($\beta = .054$; $p = .597$), and 'rapport' ($\beta = .100$; $p = .328$). Findings of the linear regression analysis also show that gender ($\beta = .109$; $p = .305$), age ($\beta = .265$; $p = .290$), and professional experience ($\beta = -.135$; $p = .586$) have no significant effect on the SVIs of the counterpart.

After presenting the findings for Hypotheses H 3.7–H 3.9, the following table summarises the results of the linear regression analyses and indicates that one of the three hypotheses is supported by the findings.

| H 3.7: Participants applying the integrative negotiation behaviour of asking questions about priorities achieve higher individual economic outcomes in integrative negotiations. | | | | | |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|---------|------|-----------------------|---------------|
| Independent variable | Dependent variable | β | p | Finding | Result |
| Asking questions about priorities | PIEO | .178 | .065 | No significant effect | Not supported |
| H 3.8: Participants applying the integrative negotiation behaviour of asking questions about priorities achieve higher joint economic outcomes in integrative negotiations. | | | | | |
| Independent variable | Dependent variable | β | p | Finding | Result |
| Asking questions about priorities | PJEO | .216 | .005 | Significant effect | Supported |
| H 3.9: Participants applying the integrative negotiation behaviour of asking questions about priorities achieve higher subjective value inventories of the counterpart in integrative negotiations. | | | | | |
| Independent variable | Dependent variable | β | p | Finding | Result |
| Asking questions about priorities | SVI | .044 | .661 | No significant effect | Not supported |

Table 22: Summary of findings for H 3.7–H 3.9 (devised by the author)

4.4.4 Findings for Hypotheses H 3.10–H 3.12

Standardised coefficients (β), significance (p), and variance inflated factors (VIF) are calculated in linear regression analyses and shown in the following table for Hypotheses H 3.10–H 3.12, including control variables of age, gender, and professional experience.

| Independent Variables | Dependent Variables | | | | | |
|------------------------------|---------------------|--------|---------------|--------|--------------|------|
| | H 3.10 (PIEO) | | H 3.11 (PJEO) | | H 3.12 (SVI) | |
| | β | p | β | p | β | p |
| <i>Control variables</i> | | | | | | |
| Age | .157 | .516 | .156 | .511 | .265 | .290 |
| Gender | .335 | .002** | .337 | .000** | .109 | .305 |
| Professional Experience | -.264 | .271 | -.191 | .418 | -.135 | .586 |
| R2 | .109 | | .142 | | .045 | |
| Adjusted R2 | .082 | | .115 | | .015 | |
| $\Delta R2$ | .109 | | .142 | | .045 | |
| <i>Control variables</i> | | | | | | |
| Age | .107 | .654 | .126 | .593 | .282 | .263 |
| Gender | .318 | .002** | .366 | .000** | .115 | .283 |
| Professional Experience | -.289 | .211 | -.206 | .387 | -.127 | .609 |
| <i>Independent variables</i> | | | | | | |
| Suggesting packaging | .290 | .003* | .176 | .074 | -.096 | .358 |
| R2 | .187 | | .170 | | .054 | |
| Adjusted R2 | .153 | | .135 | | .014 | |
| $\Delta R2$ | .078 | | .029 | | .008 | |

** . Effect is significant at the 0.01 level.

* . Effect is significant at the 0.05 level.

Table 23: Linear regression analyses H 3.10–H 3.12 (devised by the author)

Hypothesis 3.10 predicted that participants applying the integrative negotiation behaviour of suggesting packaging achieve higher individual economic outcomes in integrative negotiations. Linear regression analysis demonstrates a significant effect of the application of suggesting packaging on the Pareto efficiency of the individual economic outcome ($\beta = .290$; $p = .003$; $VIF = 1.082$). Therefore, with a standardised coefficient of the integrative negotiation behaviour of suggesting

packaging, which can significantly explain the Pareto efficiency of the individual economic outcome, the null hypothesis can be rejected, and Hypothesis 3.10 can be supported. Worth mentioning are the findings of the control variables. Gender has a significant effect on the Pareto efficiency of the individual economic outcome ($\beta = .335$; $p = .002$). The control variables age ($\beta = .157$; $p = .516$) and professional experience ($\beta = -.264$; $p = .271$) have no significant effect on the Pareto efficiency of the individual economic outcome.

Hypothesis 3.11 predicted that participants applying the integrative negotiation behaviour of suggesting packaging achieve higher joint economic outcomes in integrative negotiations. Linear regression analysis demonstrates a non-significant effect of the application of suggesting packaging on the Pareto efficiency of the joint economic outcome ($\beta = .176$; $p = .074$; VIF = 1.082). Therefore, with a standardised coefficient of the integrative negotiation behaviour of suggesting packaging, which cannot significantly explain the PJEO, the null hypothesis cannot be rejected, and Hypothesis 3.11 cannot be supported. Worth mentioning are the findings of the control variables. Gender has a significant effect on the Pareto efficiency of the joint economic outcome ($\beta = .337$; $p = .000$). The control variables age ($\beta = .156$; $p = .511$) and professional experience ($\beta = -.191$; $p = .418$) have no significant effect on the Pareto efficiency of the joint economic outcome.

Hypothesis 3.12 predicted that participants applying the integrative negotiation behaviour of suggesting packaging achieve higher subjective value inventories of the counterpart in integrative negotiations. Linear regression analysis demonstrates a non-significant effect of the application of suggesting packaging

on the SVIs of the counterpart ($\beta = -.096$; $p = .358$; $VIF = 1.082$). Therefore, with a non-significant standardised coefficient of the integrative negotiation behaviour of suggesting packaging, which cannot explain the SVIs of the counterpart, the null hypothesis cannot be rejected, and Hypothesis 3.12 cannot be supported. Additional linear regression analyses demonstrate non-significant effects of the application of the integrative negotiation behaviour of suggesting packaging as a predictor of the subscales of the SVI of 'instrumental outcome' ($\beta = -.136$; $p = .192$), 'self' ($\beta = -.110$; $p = .287$), 'process' ($\beta = .125$; $p = .234$), 'relationship' ($\beta = -.162$; $p = .123$), and 'rapport' ($\beta = -.023$; $p = .828$). Findings of the linear regression analysis also show that gender ($\beta = .109$; $p = .305$), age ($\beta = .265$; $p = .290$), and professional experience ($\beta = -.135$; $p = .586$) have no significant effect on the SVIs of the counterpart.

After presenting the findings for Hypotheses H 3.10–H 3.12, the following table summarises the results of the linear regression analyses and indicates that the findings support one of the three hypotheses.

| H 3.10: Participants applying the integrative negotiation behaviour of suggesting packaging achieve higher individual economic outcomes in integrative negotiations. | | | | | |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|---------|------|-----------------------|---------------|
| Independent variable | Dependent variable | β | p | Finding | Result |
| Suggesting packaging | PIEO | .290 | .003 | Significant effect | Supported |
| H 3.11: Participants applying the integrative negotiation behaviour of suggesting packaging achieve higher joint economic outcomes in integrative negotiations. | | | | | |
| Independent variable | Dependent variable | β | p | Finding | Result |
| Suggesting packaging | PJEO | .176 | .074 | No significant effect | Not Supported |
| H 3.12: Participants applying the integrative negotiation behaviour of suggesting packaging achieve higher subjective value inventories of the counterpart in integrative negotiations. | | | | | |
| Independent variable | Dependent variable | β | p | Finding | Result |
| Suggesting packaging | SVI | -.096 | .358 | No significant effect | Not supported |

Table 24: Summary of findings for H 3.10–H 3.12 (devised by the author)

4.4.5 Findings for Hypotheses H 3.13–H 3.15

Standardised coefficients (β), significance (p), and variance inflated factors (VIF) are calculated in linear regression analyses and shown in the following table for Hypotheses H 3.13–H 3.15, including control variables of age, gender, and professional experience.

| Independent Variables | Dependent Variables | | | | | |
|--------------------------------|---------------------|--------|---------------|--------|--------------|------|
| | H 3.13 (PIEO) | | H 3.14 (PJEO) | | H 3.15 (SVI) | |
| | β | p | β | p | β | p |
| <i>Control variables</i> | | | | | | |
| Age | .157 | .516 | .156 | .511 | .265 | .290 |
| Gender | .335 | .002** | .337 | .000** | .109 | .305 |
| Professional Experience | -.264 | .271 | -.191 | .418 | -.135 | .586 |
| R2 | | .109 | | .142 | | .045 |
| Adjusted R2 | | .082 | | .115 | | .015 |
| $\Delta R2$ | | .109 | | .142 | | .045 |
| <i>Control variables</i> | | | | | | |
| Age | .240 | .316 | .239 | .309 | .029 | .406 |
| Gender | .310 | .003** | .352 | .001** | .126 | .238 |
| Professional Experience | -.333 | .161 | -.259 | .265 | -.089 | .719 |
| <i>Independent variable</i> | | | | | | |
| Suggesting delayed reciprocity | .219 | .024* | .219 | .022* | -.148 | .145 |
| R2 | | .156 | | .188 | | .066 |
| Adjusted R2 | | .120 | | .154 | | .027 |
| $\Delta R2$ | | .047 | | .047 | | .021 |

** . Effect is significant at the 0.01 level.

* . Effect is significant at the 0.05 level.

Table 25: Linear regression analyses H 3.13–H 3.15 (devised by the author)

Hypothesis 3.13 predicted that participants applying the integrative negotiation behaviour of suggesting delayed reciprocity achieve higher individual economic outcomes in integrative negotiations. Linear regression analysis demonstrates a significant effect of the application of suggesting delayed reciprocity on the Pareto efficiency of the individual economic outcome ($\beta = .219$; $p = .024$; VIF = 1.032). Therefore, with a standardised coefficient of the integrative negotiation behaviour of suggesting delayed reciprocity, which can significantly explain the Pareto

efficiency of the individual economic outcome, the null hypothesis can be rejected, and Hypothesis 3.13 can be supported. Worth mentioning are the findings of the control variables. Gender has a significant effect on the Pareto efficiency of the individual economic outcome ($\beta = .335$; $p = .002$). The control variables age ($\beta = .157$; $p = .516$) and professional experience ($\beta = -.264$; $p = .271$) have no significant effect on the Pareto efficiency of the individual economic outcome.

Hypothesis 3.14 predicted that participants applying the integrative negotiation behaviour of suggesting delayed reciprocity achieve higher joint economic outcomes in integrative negotiations. Linear regression analysis demonstrates a significant effect of the application of suggesting delayed reciprocity on the Pareto efficiency of the joint economic outcome ($\beta = .219$; $p = .022$; VIF = 1.032). Therefore, with a standardised coefficient of the integrative negotiation behaviour of suggesting delayed reciprocity, which can significantly explain the Pareto efficiency of the joint economic outcome, the null hypothesis cannot be rejected, and Hypothesis 3.14 cannot be supported. Worth mentioning are the findings of the control variables. Gender has a significant effect on the Pareto efficiency of the joint economic outcome ($\beta = .337$; $p = .000$). The control variables age ($\beta = .156$; $p = .511$) and professional experience ($\beta = -.191$; $p = .418$) have no significant effect on the Pareto efficiency of the joint economic outcome.

Hypothesis 3.15 predicted that participants applying the integrative negotiation behaviour of suggesting delayed reciprocity achieve higher subjective value inventories of the counterpart in integrative negotiations. Linear regression analysis demonstrates a non-significant effect of the application of suggesting

delayed reciprocity on the SVIs of the counterpart ($\beta = -.148$; $p = .145$; VIF = 1.032). Therefore, with a non-significant standardised coefficient of the integrative negotiation behaviour of suggesting delayed reciprocity, which cannot explain the SVIs of the counterpart, the null hypothesis cannot be rejected, and Hypothesis 3.15 cannot be supported. Additional linear regression analyses demonstrate a significant effect of the application of the integrative negotiation behaviour of suggesting delayed reciprocity as a predictor of the subscales of the SVI of 'instrumental outcome' ($\beta = -.221$; $p = .029$) and non-significant effects of the application of the integrative negotiation behaviour of suggesting delayed reciprocity as a predictor of the subscales of the SVI of 'self' ($\beta = -.077$; $p = .448$), 'process' ($\beta = -.030$; $p = .770$), 'relationship' ($\beta = -.133$; $p = .197$), and 'rapport' ($\beta = -.094$; $p = .363$). Findings of the linear regression analysis also show that gender ($\beta = .109$; $p = .305$), age ($\beta = .265$; $p = .290$), and professional experience ($\beta = -.135$; $p = .586$) have no significant effect on the SVIs of the counterpart.

After presenting the findings for Hypotheses H 3.13–H 3.15, the following table summarises the results of the linear regression analyses and indicates that none of the three hypotheses are supported by the findings.

| H 3.13: Participants applying the integrative negotiation behaviour of suggesting delayed reciprocity achieve higher individual economic outcomes in integrative negotiations. | | | | | |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|---------|------|-----------------------|---------------|
| Independent variable | Dependent variable | β | p | Finding | Result |
| Suggesting delayed reciprocity | PIEO | .219 | .024 | Significant effect | Supported |
| H 3.14: Participants applying the integrative negotiation behaviour of suggesting delayed reciprocity achieve higher joint economic outcomes in integrative negotiations. | | | | | |
| Independent variable | Dependent variable | β | p | Finding | Result |
| Suggesting delayed reciprocity | PJEO | .219 | .022 | Significant effect | Supported |
| H 3.15: Participants applying the integrative negotiation behaviour of suggesting delayed reciprocity achieve higher subjective value inventories of the counterpart in integrative negotiations. | | | | | |
| Independent variable | Dependent variable | β | p | Finding | Result |
| Suggesting delayed reciprocity | SVI | -.148 | .145 | No significant effect | Not supported |

Table 26: Summary of findings for H 3.13–H 3.15 (devised by the author)

In summary, for Hypotheses 3.1–3.15, six hypotheses are supported, and nine hypotheses are not supported by the data of this study. Aiming for the integrative negotiation outcome of the Pareto efficiency of the individual economic outcome, the integrative behaviours of making multi-issue offers, suggesting packaging, and suggesting delayed reciprocity provide significant effects for improving this aim. Aiming for the integrative negotiation outcome of the Pareto efficiency of the joint economic outcome, the integrative negotiation behaviours of making multi-issue offers, asking questions about priorities, and suggesting delayed reciprocity provide significant effects for improving this aim. Aiming for the integrative negotiation outcome of subjective value inventory, none of the integrative negotiation behaviours significantly improve this aim.

The subsequent section compares the scale for integrative mindset and the VFT technique of identifying objectives as predictors for negotiation performance.

4.5 Empirical Comparison of Theories

The effect sizes were assessed for the hypothesised correlations with IBM SPSS Statistics 26 software, which was used to calculate Pearson's correlations coefficient r (incl. significance) and multiple regression analyses.

A deductive method of empirical testing was applied for this study to compare the opposing theories. Based on the SIM scores on a six-point Likert scale, the presence or absence of the VFT technique of identifying objectives measured as a dichotomous variable (present = 2; absent = 1) for each data set and individual calculations of the dependent variables (PJEO, PIEO, SVI, and the presence versus absence of integrative negotiation behaviours), Hypotheses 4.1–4.8 were empirically tested.

4.5.1 Findings for Hypotheses H 4.1–H 4.3

Standardised coefficients (β), significance (p), and variance inflated factors (VIF) are calculated in multiple regression analyses and shown in the following table for Hypotheses H 4.1–H 4.3, including control variables of age, gender, and professional experience.

| Independent Variables | Dependent Variables | | | | | |
|-------------------------------|---------------------|--------|--------------|--------|-------------|-------|
| | H 4.1 (PIEO) | | H 4.2 (PJEO) | | H 4.3 (SVI) | |
| | β | p | β | p | β | p |
| <i>Control variables</i> | | | | | | |
| Age | .157 | .516 | .156 | .511 | .265 | .290 |
| Gender | .335 | .002** | .377 | .000** | .109 | .305 |
| Professional Experience | -.264 | .271 | -.191 | .418 | -.135 | .586 |
| R2 | .109 | | .142 | | .045 | |
| Adjusted R2 | .082 | | .115 | | .015 | |
| $\Delta R2$ | .109 | | .142 | | .045 | |
| <i>Control variables</i> | | | | | | |
| Age | .155 | .523 | .158 | .509 | .269 | .286 |
| Gender | .335 | .002** | .376 | .000** | .109 | .307 |
| Professional Experience | -.262 | .279 | -.194 | .413 | -.141 | .572 |
| <i>Independent variable</i> | | | | | | |
| Scale for Integrative Mindset | .033 | .733 | -.033 | .733 | -.061 | .534 |
| R2 | .110 | | .143 | | .049 | |
| Adjusted R2 | .073 | | .107 | | .009 | |
| $\Delta R2$ | .001 | | .001 | | .004 | |
| <i>Control variables</i> | | | | | | |
| Age | .162 | .507 | .146 | .540 | .218 | .372 |
| Gender | .337 | .002** | .317 | .000** | .084 | .420 |
| Professional Experience | -.270 | .266 | -.181 | .447 | -.084 | .728 |
| <i>Independent variable</i> | | | | | | |
| VFT technique | -.024 | .804 | .049 | .610 | .242 | .015* |
| R2 | .110 | | .144 | | .103 | |
| Adjusted R2 | .073 | | .108 | | .065 | |
| $\Delta R2$ | .001 | | .002 | | .057 | |
| <i>Control variables</i> | | | | | | |
| Age | .160 | .513 | .148 | .537 | .222 | .367 |
| Gender | .337 | .002** | .371 | .000** | .084 | .422 |
| Professional Experience | -.267 | .274 | -.183 | .442 | -.090 | .713 |
| <i>Independent variable</i> | | | | | | |
| Scale for Integrative Mindset | .033 | .735 | -.032 | .734 | -.061 | .535 |
| VFT technique | -.024 | .805 | .049 | .612 | .242 | .016* |
| R2 | .011 | | .145 | | .106 | |
| Adjusted R2 | .064 | | .100 | | .059 | |
| $\Delta R2$ | .001 | | .002 | | .057 | |

** . Effect is significant at the 0.01 level (2-tailed).

* . Effect is significant at the 0.05 level (2-tailed).

Table 27: Multiple regression analyses H 4.1–H 4.3 (devised by the author)

Hypothesis 4.1 predicted that applying the VFT technique of identifying objectives has a strengthening (compensatory) effect on participants with a high (low) SIM on the individual economic outcome in integrative negotiations. Multiple regression analysis demonstrates a non-significant effect of the SIM scores on

the Pareto efficiency of the individual economic outcome ($\beta = .033$; $p = .735$; VIF = 1.002). Furthermore, multiple regression analysis demonstrates a non-significant effect of the application of the VFT technique of identifying objectives on the Pareto efficiency of individual economic outcomes ($\beta = -.024$; $p = .805$; VIF = 1.018). Therefore, with non-significant standardised coefficients of the SIM scores and the application of the VFT technique of identifying objectives, which cannot explain the Pareto efficiency of the individual economic outcome, the null hypothesis cannot be rejected, and Hypothesis 4.1 cannot be supported. Worth mentioning are the findings of the control variables. Gender has a significant effect on the Pareto efficiency of the individual economic outcome ($\beta = .335$; $p = .002$). The control variables age ($\beta = .157$; $p = .516$) and professional experience ($\beta = -.264$; $p = .271$) have no significant effect on the Pareto efficiency of the individual economic outcome.

Hypothesis 4.2 predicted that applying the VFT technique of identifying objectives has a strengthening (compensatory) effect on participants with a high (low) SIM on the joint economic outcome in integrative negotiations. Multiple regression analysis demonstrates a non-significant effect of the SIM scores on the Pareto efficiency of the joint economic outcome ($\beta = -.032$; $p = .734$; VIF = 1.002). In addition, multiple regression analysis demonstrates a non-significant effect of the application of the VFT technique of identifying objectives on the Pareto efficiency of the joint economic outcome ($\beta = .049$; $p = .612$; VIF = 1.018). Therefore, with non-significant standardised coefficients of the SIM scores and the application of the VFT technique of identifying objectives, which cannot explain the Pareto efficiency of the joint economic outcome, the null hypothesis cannot be rejected, and Hypothesis 4.2 cannot be supported. Again, worth mentioning are the

findings of the control variables. Gender has a significant effect on the Pareto efficiency of the joint economic outcome ($\beta = .377$; $p = .000$). The control variables age ($\beta = .156$; $p = .511$) and professional experience ($\beta = -.191$; $p = .418$) have no significant effect on the Pareto efficiency of the joint economic outcome.

Hypothesis 4.3 predicted that applying the VFT technique of identifying objectives has a strengthening (compensatory) effect on participants with a high (low) SIM on the SVIs of the counterpart in integrative negotiations. Multiple regression analysis demonstrates a non-significant effect of the SIM scores on the SVIs of the counterpart ($\beta = -.061$; $p = .535$; VIF = 1.002). Multiple regression analysis demonstrates a significant effect of the application of the VFT technique of identifying objectives on the SVIs of the counterpart ($\beta = .242$; $p = .016$; VIF = 1.018). However, even though one predictor (the application of the VFT technique of identifying objectives) has a significant effect on the independent variable of the SVIs of counterpart, Hypothesis 4.3 cannot be supported, as there cannot be a strengthening (compensatory) effect on participants with a high (low) SIM on subjective value inventories of the counterpart in integrative negotiations, if the SIM score does not have a significant (positive or negative) effect. Therefore, the null hypothesis cannot be rejected, and Hypothesis 4.3 cannot be supported. Findings of the multiple regression analysis also show that gender ($\beta = .109$; $p = .305$), age ($\beta = .265$; $p = .290$), and professional experience ($\beta = -.135$; $p = .586$) have no significant effect on the SVIs of the counterpart.

After presenting the findings for Hypotheses H 4.1–H 4.3, the following table summarises the results of the multiple regression analysis and indicates that none of the three hypotheses are supported by the findings.

| H 4.1: Applying the VFT technique of identifying objectives has a strengthening (compensatory) effect on participants with a high (low) SIM on the individual economic outcome in integrative negotiations. | | | | | |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|---------|------|-----------------------|---------------|
| Independent variable | Dependent variable | β | p | Finding | Result |
| SIM | PIEO | .033 | .735 | No significant effect | Not supported |
| VFT technique | PIEO | -.024 | .805 | No significant effect | |
| H 4.2: Applying the VFT technique of identifying objectives has a strengthening (compensatory) effect on participants with a high (low) SIM on the joint economic outcome in integrative negotiations. | | | | | |
| Independent variable | Dependent variable | β | p | Finding | Result |
| SIM | PJEO | -.032 | .734 | No significant effect | Not Supported |
| VFT technique | PJEO | .049 | .612 | No significant effect | |
| H 4.3: Applying the VFT technique of identifying objectives has a strengthening (compensatory) effect on participants with a high (low) SIM on subjective value inventories of the counterpart in integrative negotiations. | | | | | |
| Independent variable | Dependent variable | β | p | Finding | Result |
| SIM | SVI | -.061 | .535 | No significant effect | Not supported |
| VFT technique | SVI | .242 | .016 | Significant effect | |

Table 28: Summary of findings for H 4.1–H 4.3 (devised by the author)

4.5.2 Findings for Hypotheses H 4.4–H 4.8

Standardised coefficients (β), significance (p), and variance inflated factors (VIF) are calculated in multiple regression analyses and shown in the following table for Hypotheses H 4.4–H 4.8, including control variables of age, gender, and professional experience.

| Independent Variables | Dependent Variables | | | | | | | | | |
|-------------------------------|---------------------|------|---------|-------|---------|------|---------|------|---------|------|
| | H 4.4 | | H 4.5 | | H 4.6 | | H 4.7 | | H 4.8 | |
| | β | p | β | p | β | p | β | p | β | p |
| Control variable | | | | | | | | | | |
| Age | .182 | .461 | .097 | .696 | -.017 | .945 | .171 | .486 | -.379 | .134 |
| Gender | .116 | .271 | .244 | .023* | -.061 | .574 | .057 | .584 | .113 | .292 |
| Professional Experience | .028 | .908 | -.131 | .594 | .132 | .601 | .084 | .730 | .311 | .215 |
| R2 | .073 | | .058 | | .013 | | .076 | | .031 | |
| Adjusted R2 | .044 | | .029 | | -.018 | | .047 | | .001 | |
| Δ R2 | .073 | | .058 | | .013 | | .076 | | .031 | |
| Control variable | | | | | | | | | | |
| Age | .185 | .455 | .089 | .719 | -.028 | .912 | .163 | .505 | -.385 | .129 |
| Gender | .116 | .273 | .244 | .022 | -.061 | .569 | .057 | .580 | .113 | .292 |
| Professional Experience | .023 | .924 | -.118 | .630 | .149 | .551 | .098 | .685 | .319 | .204 |
| Independent variable | | | | | | | | | | |
| Scale for Integrative Mindset | -.057 | .567 | .155 | .119 | .190 | .060 | .163 | .097 | .094 | .354 |
| R2 | .077 | | .082 | | .049 | | .103 | | .040 | |
| Adjusted R2 | .038 | | .044 | | .009 | | .065 | | -.001 | |
| Δ R2 | .003 | | .024 | | .036 | | .026 | | .009 | |
| Control variable | | | | | | | | | | |
| Age | .213 | .384 | .095 | .705 | -.039 | .887 | .182 | .463 | -.376 | .141 |
| Gender | .133 | .206 | .243 | .025 | -.073 | .504 | .063 | .552 | .115 | .289 |
| Professional Experience | -.006 | .980 | -.129 | .604 | .156 | .538 | .073 | .767 | .307 | .225 |
| Independent variable | | | | | | | | | | |
| VFT technique | -.162 | .105 | .012 | .908 | .112 | .273 | -.053 | .594 | -.018 | .857 |
| R2 | .099 | | .058 | | .025 | | .079 | | .031 | |
| Adjusted R2 | .061 | | .019 | | -.016 | | .040 | | -.010 | |
| Δ R2 | .026 | | .000 | | .012 | | .003 | | .000 | |
| Control variable | | | | | | | | | | |
| Age | .216 | .379 | .086 | .728 | -.050 | .844 | .173 | .481 | -.381 | .136 |
| Gender | .133 | .207 | .243 | .024* | -.073 | .499 | .063 | .548 | .115 | .289 |
| Professional Experience | -.011 | .964 | -.115 | .640 | .172 | .490 | .087 | .721 | .315 | .213 |
| Independent variable | | | | | | | | | | |
| Scale for Integrative Mindset | -.057 | .563 | .115 | .121 | .191 | .060 | .163 | .102 | .094 | .356 |
| VFT technique | -.162 | .103 | .012 | .905 | .113 | .267 | -.053 | .593 | -.018 | .858 |
| R2 | .102 | | .082 | | .061 | | .105 | | .040 | |
| Adjusted R2 | .055 | | .034 | | .011 | | .058 | | -.011 | |
| Δ R2 | .026 | | .000 | | .012 | | .003 | | .000 | |

** . Effect is significant at the 0.01 level (2-tailed).

* . Effect is significant at the 0.05 level (2-tailed).

Table 29: Multiple regression analyses H 4.4–H 4.8 (devised by the author)

Hypothesis 4.4 predicted that applying the VFT technique of identifying objectives has a strengthening (compensatory) effect on participants with a high (low) SIM on making multi-issue offers in integrative negotiations. Multiple regression analysis demonstrates a non-significant effect of the SIM scores on the

integrative negotiation behaviour of making multi-issue offers ($\beta = -.057$; $p = .567$; $VIF = 1.002$). Moreover, multiple regression analysis demonstrates a non-significant effect of the application of the VFT technique of identifying objectives on the integrative negotiation behaviour of making multi-issue offers ($\beta = -.162$; $p = .103$; $VIF = 1.018$). Therefore, with non-significant standardised coefficients of the SIM scores and the application of the VFT technique of identifying objectives, which cannot explain the integrative negotiation behaviour of making multi-issue offers, the null hypothesis cannot be rejected, and Hypothesis 4.4 cannot be supported. Findings of the multiple regression analysis also show that gender ($\beta = .116$; $p = .461$), age ($\beta = .182$; $p = .461$), and professional experience ($\beta = .028$; $p = .908$) have no significant effect on the integrative negotiation behaviour of making multi-issue offers.

Hypothesis 4.5 predicted that applying the VFT technique of identifying objectives has a strengthening (compensatory) effect on participants with a high (low) SIM on providing information about priorities across issues in integrative negotiations. Multiple regression analysis demonstrates a non-significant effect of the SIM scores on the integrative negotiation behaviour of providing information about priorities across issues ($\beta = .115$; $p = .121$; $VIF = 1.002$). Furthermore, multiple regression analysis demonstrates a non-significant effect of the application of the VFT technique of identifying objectives on the integrative negotiation behaviour of providing information about priorities across issues ($\beta = .012$; $p = .905$; $VIF = 1.018$). Therefore, with non-significant standardised coefficients of the SIM scores and the application of the VFT technique of identifying objectives, which cannot explain the integrative negotiation behaviour of providing information about priorities across issues, the null hypothesis cannot be rejected, and

Hypothesis 4.5 cannot be supported. Worth mentioning are the findings of the control variables. Gender has a significant effect on the behaviour of providing information about priorities across issues ($\beta = .224$; $p = .023$). The control variables age ($\beta = .097$; $p = .696$) and professional experience ($\beta = -.131$; $p = .594$) have no significant effect on the Pareto efficiency of the individual economic outcome.

Hypothesis 4.6 predicted that applying the VFT technique of identifying objectives has a strengthening (compensatory) effect on participants with a high (low) SIM on asking questions about priorities in integrative negotiations. Multiple regression analysis demonstrates a non-significant effect of the SIM scores on the integrative negotiation behaviour of asking questions about priorities ($\beta = .191$; $p = .060$; VIF = 1.002). In addition, multiple regression analysis demonstrates a non-significant effect of the application of the VFT technique of identifying objectives on the integrative negotiation behaviour of asking questions about priorities ($\beta = .113$; $p = .267$; VIF = 1.018). Therefore, with non-significant standardised coefficients of the SIM scores and the application of the VFT technique of identifying objectives, which cannot explain the integrative negotiation behaviour of asking questions about priorities, the null hypothesis cannot be rejected, and Hypothesis 4.6 cannot be supported. Findings of the multiple regression analysis also show that gender ($\beta = -.061$; $p = .574$), age ($\beta = -.017$; $p = .945$), and professional experience ($\beta = .132$; $p = .601$) have no significant effect on the integrative negotiation behaviour of asking questions about priorities.

Hypothesis 4.7 predicted that applying the VFT technique of identifying objectives has a strengthening (compensatory) effect on participants with a high (low) SIM on suggesting the discussion of packaging in integrative negotiations. Multiple regression analysis demonstrates a non-significant effect of the SIM scores on the integrative negotiation behaviour of suggesting the discussion of packaging ($\beta = .163$; $p = .102$; VIF = 1.002). Furthermore, multiple regression analysis demonstrates a non-significant effect of the application of the VFT technique of identifying objectives on the integrative negotiation behaviour of suggesting the discussion of packaging ($\beta = -.053$; $p = .593$; VIF = 1.018). Therefore, with non-significant standardised coefficients of the SIM scores and the application of the VFT technique of identifying objectives, which cannot explain the integrative negotiation behaviour of suggesting the discussion of packaging, the null hypothesis cannot be rejected, and Hypothesis 4.7 cannot be supported. Findings of the multiple regression analysis also show that gender ($\beta = .057$; $p = .584$), age ($\beta = .171$; $p = .486$), and professional experience ($\beta = .084$; $p = .740$) have no significant effect on the integrative negotiation behaviour of suggesting the discussion of packaging.

Hypothesis 4.8 predicted that applying the VFT technique of identifying objectives has a strengthening (compensatory) effect on participants with a high (low) SIM suggesting delayed reciprocity in integrative negotiations. Multiple regression analysis demonstrates a non-significant effect of the SIM scores on the integrative negotiation behaviour of suggesting delayed reciprocity ($\beta = .094$; $p = .356$; VIF = 1.002). In addition, multiple regression analysis demonstrates a non-significant effect of the application of the VFT technique of identifying objectives on the integrative negotiation behaviour of suggesting delayed reciprocity ($\beta = -$

.018; $p = .858$; VIF = 1.018). Therefore, with non-significant standardised coefficients of the SIM scores and the application of the VFT technique of identifying objectives, which cannot explain the integrative negotiation behaviour of suggesting delayed reciprocity, the null hypothesis cannot be rejected, and Hypothesis 4.8 cannot be supported. Findings of the multiple regression analysis also show that gender ($\beta = .113$; $p = .292$), age ($\beta = -.379$; $p = .134$), and professional experience ($\beta = .311$; $p = .215$) have no significant effect on the integrative negotiation behaviour of suggesting delayed reciprocity.

After presenting the findings for Hypotheses H 4.4–H 4.8, the following table summarises the results of the multiple regression analysis and indicates that none of the three hypotheses are supported by the findings.

| H 4.4: Applying the VFT technique of identifying objectives has a strengthening (compensatory) effect on participants with a high (low) SIM on making multi-issue offers. | | | | | |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------|---------|------|-----------------------|---------------|
| Independent variable | Dependent variable | β | p | Finding | Result |
| SIM | Making multi-issue offers | -.057 | .563 | No significant effect | Not supported |
| VFT technique | making multi-issue offers | -.162 | .103 | No significant effect | Not supported |
| H 4.5: Applying the VFT technique of identifying objectives has a strengthening (compensatory) effect on participants with a high (low) SIM on providing more information about priorities across issues. | | | | | |
| Independent variable | Dependent variable | β | p | Finding | Result |
| SIM | Providing information about priorities across issues | .115 | .121 | No significant effect | Not supported |
| VFT technique | Providing information about priorities across issues | .012 | .905 | No significant effect | Not supported |

| H 4.6: Applying the VFT technique of identifying objectives has a strengthening (compensatory) effect on participants with a high (low) SIM on asking more questions about priorities. | | | | | |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------|---------|------|-----------------------|---------------|
| Independent variable | Dependent variable | β | p | Finding | Result |
| SIM | Asking questions about priorities | .191 | .060 | No significant effect | Not supported |
| VFT technique | Asking questions about priorities | .113 | .267 | No significant effect | Not supported |
| H 4.7: Applying the VFT technique of identifying objectives has a strengthening (compensatory) effect on participants with a high (low) SIM on suggesting the discussion of packaging. | | | | | |
| Independent variable | Dependent variable | β | p | Finding | Result |
| SIM | Suggesting the discussion of packaging | .163 | .102 | No significant effect | Not supported |
| VFT technique | Suggesting the discussion of packaging | -.053 | .593 | No significant effect | Not supported |
| H 4.8: Applying the VFT technique of identifying objectives has a strengthening (compensatory) effect on participants with a high (low) SIM suggesting delayed reciprocity. | | | | | |
| Independent variable | Dependent variable | β | p | Finding | Result |
| SIM | Suggesting delayed reciprocity | .094 | .356 | No significant effect | Not supported |
| VFT technique | Suggesting delayed reciprocity | -.018 | .858 | No significant effect | Not supported |

Table 30: Summary of findings for H 4.4–H 4.8 (devised by the author)

In summary, Hypotheses 4.1–4.8 are not supported by the data of this study.

The following section presents an additional analysis.

4.6 Additional Analysis: One's Own SVI as a Predictor of the SVI of the Counterpart

This section provides additional analyses that are not based on hypotheses but complement the overall findings of this thesis.

Curhan et al. (2006, p. 501) introduced a framework of social psychological outcomes to measure subjective value in negotiations. As both parties (labour and management representatives) in the present negotiation experiment answered the SVI, the results are compared in this section. To differentiate the respective SVIs of the two parties, a distinction is made below between a participant's own value inventory, SVI (self), and the value inventory of the counterpart, SVI (CP). The correlations of this study regarding SVI (self) and SVI (CP) are summarised in the following table.

| | Correlations | |
|---------------------|--------------|--------|
| | 1 | 2 |
| 1. Total SVI (CP) | 1 | .315** |
| 2. Total SVI (self) | | 1 |

** . Correlation is significant at the 0.01 level (2-tailed).

* . Correlation is significant at the 0.05 level (2-tailed).

Table 31: Correlations for additional analysis (devised by the author)

Data correlation analysis demonstrates that there is a significant correlation of Total SVI (CP) on SVI (self) (.315).

Standardised coefficients (β), significance (p), and variance inflated factors (VIF) are calculated in linear regression analyses and shown in the following table, including control variables of age, gender, and professional experience.

| Independent Variables | Dependent Variables | |
|-----------------------------|---------------------|--------|
| | SVI (CP) | |
| | β | p |
| <i>Control variables</i> | | |
| Age | .117 | .636 |
| Gender | .210 | .049* |
| Professional Experience | -.037 | .879 |
| R2 | | .063 |
| Adjusted R2 | | .034 |
| $\Delta R2$ | | .063 |
| <i>Control variables</i> | | |
| Age | -.086 | .636 |
| Gender | .127 | .049 |
| Professional Experience | .066 | .879 |
| <i>Independent variable</i> | | |
| SVI (self) | .764 | .000** |
| R2 | | .621 |
| Adjusted R2 | | .605 |
| $\Delta R2$ | | .557 |

** . Effect is significant at the 0.01 level.

*. Effect is significant at the 0.05 level.

Table 32: Linear regression analysis for additional analysis (devised by the author)

First, data correlation analysis indicates a significant medium correlation between both SVIs and, thus, the perceptions of both negotiating parties (.15).

Linear regression analysis demonstrates a significant effect of the SVI (self) on the SVI of the counterpart ($\beta = .764$; $p = .000$; VIF = 1.047).

The following chapter presents the discussion and conclusion of this thesis.

5. Discussion and Conclusion

‘Science develops from myth, under the challenge of rational criticism, a form of criticism inspired by the idea of truth; by the search for truth and the hope of attaining it.’

(Popper, 1989, p. 39)

This chapter presents the discussion and conclusion of the thesis. This chapter also discusses the theoretical contribution of this research. In this first section, the results of the research on the scale for integrative mindset (SIM) by Ade et al. (2020), the value-focused thinking (VFT) technique of identifying objectives by Keeney (1996), the integrative negotiation behaviours by Weingart (1996), and the empirical comparison of the SIM by Ade et al. (2020) and the VFT technique of identifying objectives by Keeney (1996) are presented and discussed. The theoretical contribution is then presented. The third section discusses the practical contribution of this research regarding the identification of suitable negotiators and the sharpening of negotiation training programmes. The fourth section provides the conclusions derived from this study. Afterwards, the limitations of this study are outlined in the fifth section. Finally, the sixth section offers recommendations for future research projects, and the concluding section of this chapter addresses the author's reflections on this study.

5.1 Discussion

First, the results of this research on the SIM as a predictor of negotiation outcomes and behaviour are presented and discussed. The subsequent sub-section presents and discusses the VFT technique of identifying objectives as a predictor of negotiation outcomes and behaviour. The third sub-section presents and discusses integrative negotiation behaviours as a predictor of negotiation outcomes. The fourth sub-section presents and discusses the empirical comparison of the SIM and the VFT technique of identifying objectives, and the fifth sub-section presents and discusses the results of the control variables.

5.1.1 Scale for Integrative Mindset

This sub-section discusses the results of Hypotheses 1.1–1.8, which evaluate the SIM by Ade et al. (2020) as a predictor of negotiation behaviours and negotiation outcomes and answers the question to which extent the scale for integrative mindset score is a predictor of integrative negotiation performance in the context of labour negotiations. First, the research focus, hypotheses, and findings are briefly presented before the findings are compared and discussed with the literature. The results of this study are then critically assessed for possible weaknesses in the applied methodological design. Finally, the findings are summarised, and recommendations for further research are formulated.

One potential explanation for why some negotiators achieve better results in integrative negotiations is the negotiator's mindset (Ade et al., 2018). Ade et al. (2020, p. 740) sought to map and measure the integrative mindset with a

structured questionnaire. As a result of these efforts, the 15-item SIM was developed. However, Ade et al. (2020) gathered no empirical findings and data on how people with a high or low SIM score perform in integrative negotiations, which the authors identified as an opportunity for further research:

The SIM lays the groundwork for future research, especially experimental studies based on behavioural criteria data, that is, data showing how people with high or low SIM scores perform in integrative negotiations. Such studies would allow researchers to understand how much the SIM can predict negotiation performance. (p. 746)

Hypotheses 1.1–1.8 of this thesis concern the SIM score as a predictor of negotiation performance and behaviour.

H 1.1: Participants with high SIM scores achieve higher individual economic outcomes in integrative negotiations.

H 1.2: Participants with high SIM scores achieve higher joint economic outcomes in integrative negotiations.

H 1.3: Participants with high SIM scores achieve higher subjective value inventories (SVI) of the counterpart in integrative negotiations.

H 1.4: Participants with high SIM scores will be more likely to make more multi-issue offers.

H 1.5: Participants with high SIM scores will be more likely to provide more information about priorities across issues.

H 1.6: Participants with high SIM scores will be more likely to ask more questions about priorities.

H 1.7: Participants with high SIM scores will be more likely to suggest the discussion of packaging.

H 1.8: Participants with high SIM scores will be more likely to suggest delayed reciprocity.

In summary, for Hypotheses 1.1–1.8, there are no significant effects of the SIM score on the dependent variables PIEO, PJEO, SVI, and the integrative negotiation behaviours of (a) making multi-issue offers, (b) providing information about priorities across issues, (c) asking questions about priorities, (d) suggesting packaging, and (e) suggesting delayed reciprocity. Therefore, the null hypotheses of H 1.1–H 1.8 cannot be rejected, and Hypotheses H 1.1–H 1.8 cannot be supported. The following tables summarise these findings.

| H 1.1: Participants with high SIM scores achieve higher individual economic outcomes in integrative negotiations. | | | | | |
|---------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|---------|------|-----------------------|---------------|
| Independent variable | Dependent variable | β | p | Finding | Result |
| SIM | PIEO | .033 | .733 | No significant effect | Not supported |
| H 1.2: Participants with high SIM scores achieve higher joint economic outcomes in integrative negotiations. | | | | | |
| Independent variable | Dependent variable | β | p | Finding | Result |
| SIM | PJEO | -.033 | .733 | No significant effect | Not supported |
| H 1.3: Participants with high SIM scores achieve higher subjective value inventories (SVI) of the counterpart in integrative negotiations. | | | | | |
| Independent variable | Dependent variable | β | p | Finding | Result |
| SIM | SVI | -.061 | .543 | No significant effect | Not supported |
| H 1.4: Participants with high SIM scores will be more likely to make more multi-issue offers. | | | | | |
| Independent variable | Dependent variable | β | p | Finding | Result |
| SIM | Making multi-issue offers | -.057 | .567 | No significant effect | Not supported |

| H 1.5: Participants with high SIM scores will be more likely to provide more information about priorities across issues. | | | | | |
|---------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------|---------|------|-----------------------|---------------|
| Independent variable | Dependent variable | β | p | Finding | Result |
| SIM | Providing information about priorities across issues | .155 | .119 | No significant effect | Not supported |
| H 1.6: Participants with high SIM scores will be more likely to ask more questions about priorities. | | | | | |
| Independent variable | Dependent variable | β | p | Finding | Result |
| SIM | Asking questions about priorities | .190 | .998 | No significant effect | Not supported |
| H 1.7: Participants with high SIM scores will be more likely to suggest the discussion of packaging. | | | | | |
| Independent variable | Dependent variable | β | p | Finding | Result |
| SIM | Suggesting the discussion of packaging | .163 | .998 | No significant effect | Not supported |
| H 1.8: Participants with high SIM scores will be more likely to suggest delayed reciprocity. | | | | | |
| Independent variable | Dependent variable | β | p | Finding | Result |
| SIM | Suggesting delayed reciprocity | .094 | .998 | No significant effect | Not supported |

Table 33: Summary of findings for H 1.1–H 1.8 (devised by the author)

The remainder of this sub-section evaluates the individual arguments and claims that underlie the SIM by Ade et al. (2020) in the context of the findings of this study. This sub-section then discusses related literature in the context of the findings of the present study.

Being more collaborative, curious and creative can, at times, allow negotiators to identify and exploit the integrative potential that, at first, remains hidden. (Ade et al., 2018, p. 4)

The above statement was tested in this study by Hypothesis 1.1, which concerns whether participants with high SIM scores achieve higher individual economic outcomes in integrative negotiations than those with low SIM scores, and

Hypothesis 1.2, which concerns whether participants with high SIM scores achieve higher joint economic outcomes in integrative negotiations. Linear regression analysis demonstrates a non-significant effect of the scale for integrative mindset on the Pareto efficiency of the individual economic outcome ($\beta = .033$; $p = .733$; VIF = 1.002). Linear regression analysis also demonstrates a non-significant effect of the scale for integrative mindset on the Pareto efficiency of the joint economic outcome ($\beta = -.033$; $p = .733$; VIF = 1.002). Accordingly, the claim regarding the ability to ‘exploit integrative potential’ cannot be supported in this study.

Another benefit of the integrative mindset is that it psychologically prepares individuals for realizing integrative potential and may allow them to help counterparts to do the same. (Ade et al., 2018, p. 9)

The above statement was tested in this study by Hypothesis 1.2, which concerns whether participants with high SIM scores achieve higher joint economic outcomes in integrative negotiations than those with low scores. In this study, there are no significant effects of the SIM score on PJEO ($\beta = -.033$; $p = .733$; VIF = 1.002). As such, the claim that an integrative mindset ‘psychologically prepares individuals for realizing integrative potential, but also that it may allow them to help counterparts to do the same’ (Ade et al., 2018, p. 9) cannot be supported in this study.

The mindset that people hold influences how they perceive negotiations feel about their counterparts and behave in social interactions. (Ade et al., 2018, p. 3)

This above statement was tested in this study by Hypothesis 1.3, which addresses whether participants with high SIM scores achieve higher SVIs of the

counterpart in integrative negotiations than those with low scores, and Hypotheses 1.4–1.8, which address whether participants with high SIM scores are more likely to employ integrative negotiation behaviours. Linear regression analysis demonstrates no significant effects of the SIM score and the SVIs of the counterpart ($\beta = -.061$; $p = .543$; VIF = 1.002). In addition, linear regression analysis demonstrates no significant effects of the SIM on the negotiator's behaviour as predicted in Hypotheses 1.4–1.8.

If negotiators have a collaborative inclination, positive emotions such as satisfaction or joy often not result from individual gains but also from the value created collaboratively and the very fact that a good relationship has been established or fostered. (Ade et al., 2018, p. 4)

In this study, there are no significant effects of the SIM score with its sub-dimension 'collaboration' and the SVIs of the counterpart ($\beta = -.061$; $p = .543$; VIF = 1.002) that contains a subscale of 'relationship'. Therefore, this study cannot support the claim that 'a good relationship has been established or fostered' (Ade et al., 2018, p. 4).

[Collaboration] increases negotiators' willingness [...] to provide other parties with information and exchange offers rather than claims. (Ade et al., 2018, p. 4)

In this study, the SIM score has no significant effects with its sub-dimension of 'collaboration' and the integrative negotiation behaviour of providing information about priorities across issues ($\beta = .155$; $p = .119$; VIF = 1.002). As such, the claim that the collaborative inclination 'increases negotiators' willingness [...] provide other parties with information' (Ade et al., 2018, p. 4) cannot be supported in this study.

Another claim by Ade et al. (2018) is that curious negotiators ‘ask more questions’ (Ade et al., 2018, p. 5). In this study, the SIM score has no significant effects with its sub-dimension of ‘curiosity’ and the integrative negotiation behaviour of asking questions about priorities ($\beta = .190$; $p = .998$; VIF = 1.002). Therefore, this study cannot support the belief that a curious inclination leads negotiators to ‘ask more questions’ (Ade et al., 2018, p. 45).

A creative inclination [...] might be indicated by the high frequency and the long duration of playful searches for multiple integrative solutions. (Ade et al., 2018, p. 6)

Taking the integrative negotiation behaviour of making multi-issue offers as an indicator for ‘playful searches for multiple integrative solutions’, this study found no significant effect of the SIM score with its sub-dimension of ‘creativity’ and making multi-issue offers ($\beta = -.057$; $p = .567$; VIF = 1.002). Therefore, this claim cannot be supported.

Finally, Ade et al. (2020) claimed that ‘negotiators with a creative inclination enjoy developing and exploring new ideas before committing to a possible solution’ (p. 741).

Taking the integrative negotiation behaviour of suggesting delayed reciprocity as an indicator for exploring new ideas before committing to a possible solution (Ade et al., 2020, p. 6), this study revealed no significant effect of the SIM score with its subdimension of ‘creativity’ and the integrative negotiation behaviour of suggesting delayed reciprocity ($\beta = .094$; $p = .998$; VIF = 1.002).

Having assessed the individual arguments and claims that constituted the basis for the SIM by Ade et al. (2018; 2020), the following sub-section discusses the findings of this study in the context of the literature.

This research aligns with the argument by Rubin and Brown (1975) that ‘there is no systematic relationship between individual differences parameters and bargaining behaviour’ (p. 195), at least when individual differences are measured using Ade et al.’s (2020) scale for integrative mindset. Bazerman et al. (2000) and Thompson (1990) also claimed that negotiation outcomes could not be predicted by individual differences, noting that ‘simple individual differences offer limited potential for predicting negotiation outcomes’ (Bazerman et al., 2000, p. 281), and ‘personality and individual differences appear to play a minimal role in determining bargaining behaviour’ (Thompson, 1990, p. 515).

In contrast, Barry and Friedman (1998) mentioned that ‘despite inconsistent findings, there is reason to assume that individual differences are important in understanding how individuals manage conflicts’ (p. 346). Barry and Friedman (1998) found that extraversion and agreeableness have ‘an impact on distributive bargaining but not on integrative bargaining, and [cognitive ability and conscientiousness have] an impact on integrative bargaining but not on distributive bargaining’ (p. 356). Regarding the research findings of Barry and Friedman (1998), the present research does not represent a contradiction. Barry and Friedman (1998) found that ‘cognitive ability played no role in distributive bargaining but was markedly related to the attainment of joint outcomes in a situation with integrative potential’⁸ (p. 345). Thus, according to Barry and

⁸ Cognitive ability measured by GMAT scores (Barry & Friedman, 1998, p. 349)

Friedman (1998), cognitive skills predict integrative negotiation outcomes. However, cognitive skills are not assessed in the SIM. In addition, no relevant differences were measured in the effects of the SIM on the PIEO and the PJEO. This finding may indicate that the SIM does not incorporate Barry and Friedman's (1998) findings that cognitive skills are considered a predictor of integrative negotiation outcomes and, thus, represents at least an incomplete reflection of the character traits necessary for integrative negotiation.

A further study related to personal differences was conducted by De Dreu, Weingart, and Kwon (2000). This meta-analytic review found that individual character traits can influence or prevent an integrative negotiation approach. The results from the meta-analysis of 28 studies indicate that resistance to yielding (low vs high) and preconditions in social motives (egoistic vs prosocial) influence or prevent an integrative negotiation approach (De Dreu, Weingart and Kwon, 2000, p. 889). It may be argued that social motives have been integrated into the collaboration sub-dimension of the SIM with the issues of 'I feel better about a deal that is beneficial to both parties than about one that is beneficial only to me', 'I am a collaborative negotiator', 'I strive for a joint decision that makes both parties happy', 'I collaborate rather than compete', and 'I work toward a consensual win-win agreement even if the rewards for doing so are unclear'. However, De Dreu, Weingart, and Kwon (2000) mentioned that 'results showed that negotiators were less contentious, engaged in more problem solving, and achieved higher joint outcomes when they had a prosocial rather than egoistic motive, but only when resistance to yielding was high (or unknown) rather than low' (p. 889). The second characteristic, high resistance to yielding, is not reflected in the SIM questionnaire. This gap suggests that the SIM does not fully

incorporate the findings of De Dreu, Weingart, and Kwon (2000) and, thus, represents at least an incomplete reflection of the character traits necessary for integrative negotiation.

Another study related to personal differences was conducted by Sharma et al. (2013). This meta-analysis affirmed that individual differences 'revealed a significant role' (p. 293) in individual and joint economic outcomes in negotiations. Sharma (2015) found that 'nearly fifteen per cent of the variance in the objective outcomes of distributive bargaining encounters can be attributed to negotiator's individual differences such as personality traits' (p. 53). Sharma et al. (2013) also found that the Big 5 personality traits, except for conscientiousness, were predictors of at least one of the three negotiation outcomes studied: Individual economic value (PIEO in this study), joint economic value (PJEO in this study), and psychological, subjective value (SVI in this study). However, the SIM does not consider the Big 5 personality traits that predict at least one of the three negotiation outcomes studied – extraversion, agreeableness, emotional stability, and openness. In addition, no significant effects were measured of the SIM as the independent variable on PIEO, PJEO, and SVI as the dependent variables. This finding may indicate that the SIM does not incorporate Sharma et al.'s (2013) findings and, thus, represents at least an incomplete reflection of the character traits necessary for integrative negotiation.

In summary, this study finds that the claim by Ade et al. (2018, p. 3) that some negotiators have an integrative mindset, which helps to overcome the fixed-pie perception, use their learned abilities in the best interest of the parties, and

increase the benefits during integrative negotiation, cannot be supported by this study using the 15-item SIM that was derived from the work of Ade et al. (2020).

Thus, the research question can be answered to which extent the scale for integrative mindset predicts integrative negotiation performance in the context of labour negotiations: The scale for integrative mindset is not a predictor concerning any of the dependent variables. This sub-section evaluated the individual arguments and claims that constitute the basis of the SIM in the context of the present study. Furthermore, this sub-section discussed the findings of this study in the context of the related literature. In short, the SIM is unsuitable for predicting negotiation outcomes due to its basic assumptions and incomplete scope, which does not incorporate the personal characteristics of cognitive ability (see Barry and Friedman, 1998), resistance to yielding (see De Dreu, Weingart and Kwon, 2000), and the Big 5 personality traits (see Sharma et al., 2013).

However, the results of this study must also be critically evaluated for possible weaknesses in the methodology and study design. This evaluation occurs in the following paragraphs.

Each research methodology in the business negotiation context exhibits strengths and weaknesses. Field studies provide 'contextual realism at the sacrifice of control and precision of measurement', whereas 'laboratory experiments contain superior precision of measurement and control of behaviour variables, but they are low in contextual generalization' (Sharma et al., 2018, p. 159). Carnevale and De Dreu (2006) summarised that 'it is often difficult to generalize results from laboratory settings to natural settings, a problem shared with field research since natural settings differ from one another' (p. 222). The

precision, control over the subject matter and possible negotiation outcomes, and comparability between experimental and control groups led to the choice of a laboratory experiment as the method for this study. Nevertheless, the results of this laboratory experiment are limited in their generalisation.

Furthermore, this study employed a 'two-group, before-after design' laboratory experiment. This type of laboratory experiment design involves collecting pre-test and post-test data on individuals assigned to a control or experimental group (Zientek, Nimon and Hammack-Brown, 2016, p. 638). Within this experiment, the participants were randomly assigned to either the experimental or control group and pre-tested on their SIM scores as an independent variable. The post-test assessed integrative negotiation behaviours (cf. Weingart, 1996) and the PIEO, PJEO, and SVI negotiation outcomes. As participants rated the 15 items of the SIM prior to the negotiation, their mindset and behaviour during the negotiation could have been influenced by the pre-test. A counterargument for this influence is the argument by Ade et al. (2018) that some negotiators already exhibit an integrative mindset. This contention implies that the integrative mindset is an independent variable not influenced by the questionnaire. However, although the measurement of SIM scores is necessary for generating data, the potential influence of questionnaire participation on participants must be considered a limitation of this study.

A further limitation is that individual negotiation preparation and the duration of the negotiation between the parties were restricted to 15 minutes each. It could be argued that this time pressure was unfavourable to the performance of the negotiators, which limits the validity of the results. In a meta-analysis, Stuhlmacher and Champagne (1998) found that time pressure increased the

probability of concessions and cooperative behaviour. Moreover, Stuhlmacher et al. (2000) found in an empirical study that participants who pressed for time made fewer offers on average. Therefore, time pressure on participants within this study may have influenced the validity of the results regarding integrative negotiation behaviour as a dependent variable.

In future studies to test the SIM as a predictor of negotiation outcomes and behaviour, questionnaires could be administered to participants only after the negotiation. Field experiments could also take place to test the SIM as a predictor of negotiation outcomes and behaviour.

In summary, for Hypotheses 1.1–1.8, there are no significant effects of the scale for integrative mindset and the dependent variables. Thus, this research aligns with the research of Rubin and Brown (1975) in finding that ‘there is no systematic relationship between individual differences parameters and bargaining behaviour’ (p. 195), at least when individual differences are measured using Ade et al.’s (2020) scale for integrative mindset. The findings are also consistent with the conclusion by Bazerman et al. (2000) that ‘simple individual differences offer limited potential for predicting negotiation outcomes’ (Bazerman et al., 2000, p. 281), at least when individual differences are measured using Ade et al.’s (2020) scale for integrative mindset, as well as the conclusion by Thompson (1990, p. 515) that ‘personality and individual differences appear to play a minimal role in determining bargaining behaviour’, at least when individual differences are measured using Ade et al.’s (2020) scale for integrative mindset. The non-significant effects suggest that the SIM is inappropriate for reducing the fixed-pie perceptions in integrative negotiations.

The following sub-section examines the VFT technique of identifying objectives by Keeney (1996) as a predictor of integrative negotiation outcomes and behaviour.

5.1.2 A Value-Focused Thinking Technique of Identifying Objectives

This sub-section discusses the results of Hypotheses 2.1–2.8, which evaluate the VFT technique of identifying objectives as a predictor of negotiation outcomes and negotiation behaviour and answers the research question to which extent the application of the value-focused thinking technique of identifying objectives is a predictor of integrative negotiation performance in the context of labour negotiations. First, the research focus, hypotheses, and findings are briefly presented. The findings are then compared with the literature. In the third part of this sub-section, the results of this study are critically assessed for possible weaknesses in the applied methodological design. Finally, the findings are summarised, and recommendations for further research are formulated.

Keeney (1992) believed that values should be the driving factor in negotiations and specifically addressed the applicability of the VFT technique of identifying objectives in integrative negotiations (pp. 238-239), as negotiators need to list, structure, and prioritise multiple issues. Keeney (2013, p. 45) argued that the analyses of decisions with multiple objectives (e.g. integrative negotiations) require consideration of aspects that are not relevant for decisions with only one objective (e.g. distributive bargaining). He emphasised that the VFT technique of identifying objectives can primarily support integrative negotiations (Keeney,

1992). From the perspective of the psychological orientation of negotiators, Keeney (1996) proposed a methodological approach that enables negotiators to identify integrative components of negotiation and, therefore, influence the outcome of a negotiation. According to Keeney (1996, p. 537), VFT helps to identify fundamental values, which are crucial to exploring the interests and priorities of negotiating parties, and 'helps uncover hidden objectives and leads to more productive information collection' (p. 33). Furthermore, Keeney (1994) mentioned that VFT 'is designed to focus the decision maker on the essential activities that must occur prior to solving a decision problem'. Therefore, applying the VFT technique of identifying objectives to the negotiation context may help parties to identify and structure objectives to avoid the fixed-pie fallacy. Within this context, Keeney and Raiffa (1991, p. 132) suggested 'that systematic qualitative structuring of values can have huge payoffs'. For the systematic qualitative structuring of values, Keeney (1992, p. 57; 1994, p. 34) introduced a question-based VFT technique for identifying objectives, including a set of 22 questions in 10 dimensions. Based on Keeney's theory that VFT should provide support in integrative negotiations (Keeney, 1992; Keeney, 1994; Keeney, 1996), it is argued that negotiators have an advantage and achieve superior integrative negotiation results and apply integrative negotiation behaviour through preparation using the VFT technique of identifying objectives. Accordingly, the following hypotheses are posed:

H 2.1: Participants applying the VFT technique of identifying objectives achieve higher individual economic outcomes in integrative negotiations.

H 2.2: Participants applying the VFT technique of identifying objectives achieve higher joint economic outcomes in integrative negotiations.

H 2.3: Participants applying the VFT technique of identifying objectives achieve higher subjective value inventories of the counterpart in integrative negotiations.

H 2.4: Participants applying the VFT technique of identifying objectives will be more likely to make more multi-issue offers.

H 2.5: Participants applying the VFT technique of identifying objectives will be more likely to provide more information about priorities across issues.

H 2.6: Participants applying the VFT technique of identifying objectives will be more likely to ask more questions about priorities.

H 2.7: Participants applying the VFT technique of identifying objectives will be more likely to suggest the discussion of packaging.

H 2.8: Participants applying the VFT technique of identifying objectives will be more likely to suggest delayed reciprocity.

In summary, for Hypotheses 2.1–2.8, there is one significant effect between the VFT technique of identifying objectives and the dependent variables PIEO, PJEO, and SVI: Hypothesis 2.3 predicted that participants applying the VFT technique would achieve higher SVI of the counterpart in integrative negotiations than those preceding this technique. The data suggest that applying the VFT

technique of identifying objectives significantly affects the counterpart's SVI ($\beta = .242$; $p = .015$). Accordingly, Hypothesis 2.3 is supported.

For Hypotheses 2.1, 2.2, and 2.4–2.8, there are no significant effects of the VFT technique of identifying objectives on the dependent variables PIEO ($\beta = -.024$; $p = .804$; VIF = 1.018) and PJEO ($\beta = -.049$; $p = .610$; VIF = 1.018), or the behavioural variables of (a) making multi-issue offers ($\beta = -.162$; $p = .105$; VIF = 1.018), (b) providing information about priorities across issues ($\beta = .012$; $p = .908$; VIF = 1.018), (c) asking questions about priorities ($\beta = .012$; $p = .273$; VIF = 1.018), (d) suggesting packaging ($\beta = -.053$; $p = .594$; VIF = 1.018), and (e) suggesting delayed reciprocity ($\beta = -.018$; $p = .857$; VIF = 1.018). Accordingly, Hypotheses 2.1, 2.2, and 2.4–2.8 were rejected. The following table summarises the results of this study regarding Hypotheses 2.1–2.8.

| H 2.1: Participants applying the VFT technique of identifying objectives achieve higher individual economic outcomes in integrative negotiations. | | | | | |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|---------|------|-----------------------|---------------|
| Independent variable | Dependent variable | β | p | Finding | Result |
| VFT technique of identifying objectives | PIEO | -.024 | .804 | No significant effect | Not supported |
| H 2.2: Participants applying the VFT technique of identifying objectives achieve higher joint economic outcomes in integrative negotiations. | | | | | |
| Independent variable | Dependent variable | β | p | Finding | Result |
| VFT technique of identifying objectives | PJEO | .049 | .610 | No significant effect | Not supported |
| H 2.3: Participants applying the VFT technique of identifying objectives achieve higher subjective value inventories of the counterpart in integrative negotiations. | | | | | |
| Independent variable | Dependent variable | β | p | Finding | Result |
| VFT technique of identifying objectives | SVI | .242 | .015 | Significant effect | Supported |
| H 2.4: Participants applying the VFT technique of identifying objectives will be more likely to make more multi-issue offers. | | | | | |
| Independent variable | Dependent variable | β | p | Finding | Result |
| VFT technique of identifying objectives | Making multi-issue offers | -.162 | .105 | No significant effect | Not supported |

| H 2.5: Participants applying the VFT technique of identifying objectives will be more likely to provide more information about priorities across issues. | | | | | |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------|---------|------|-----------------------|---------------|
| Independent variable | Dependent variable | β | p | Finding | Result |
| VFT technique of identifying objectives | Providing information about priorities across issues | .012 | .908 | No significant effect | Not supported |
| H 2.6: Participants applying the VFT technique of identifying objectives will be more likely to ask more questions about priorities. | | | | | |
| Independent variable | Dependent variable | β | p | Finding | Result |
| VFT technique of identifying objectives | Asking questions about priorities | .112 | .273 | No significant effect | Not supported |
| H 2.7 Participants applying the VFT technique of identifying objectives will be more likely to suggest the discussion of packaging. | | | | | |
| Independent variable | Dependent variable | β | p | Finding | Result |
| VFT technique of identifying objectives | Suggesting the discussion of packaging | -.053 | .594 | No significant effect | Not supported |
| H 2.8 Participants applying the VFT technique of identifying objectives will be more likely to suggest delayed reciprocity. | | | | | |
| Independent variable | Dependent variable | β | p | Finding | Result |
| VFT technique of identifying objectives | Suggesting delayed reciprocity | -.018 | .857 | No significant effect | Not supported |

Table 34: Summary of findings for H 2.1–H 2.8 (devised by the author)

As the table above indicates, Hypothesis 2.3 predicted that participants applying the VFT technique of identifying objectives would achieve higher SVIs than their counterparts in integrative negotiations. The data from this study indicate that applying the VFT technique significantly affects the SVIs of the counterpart ($\beta = .242$; $p = .015$; VIF = 1.018). Accordingly, Hypothesis 2.3 can be supported. The following paragraphs evaluate the individual arguments and claims that constitute the basis of the VFT technique of identifying objectives in the context of the present study. This sub-section subsequently discusses the findings of this study in the context of the related literature.

Although Keeney (1992) explicitly mentioned the applicability of his methodology to labour–management negotiations (pp. 238-239), the VFT methodology has remained neglected mainly in business negotiation research (cf. meta-analysis by Parnell et al., 2013; Pacheco et al., 2019, p. 502). The only research paper that uses VFT as a pre-negotiation framework was published by Urtiga et al. (2015). Urtiga et al. (2015) proposed a pre-negotiation framework that ‘aims to create values to turn distributive negotiation into integrative negotiation using VFT to help structure the process so that the parties can rely on integrative negotiation to reach an agreement’ (p. 354). However, Urtiga et al. (2015) did not have evidence and data on how individuals perform in integrative negotiations with or without the treatment of VFT. Thus, the usefulness of VFT as a business negotiation preparation methodology remained an untested theory. Empirical validation was the next step to test the effectiveness of this theory in the business negotiation context.

Based on Keeney's theory that VFT should provide support in integrative negotiations (Keeney, 1992; Keeney, 1994; Keeney, 1996), it is argued that negotiators have an advantage and achieve superior integrative negotiation results and integrative negotiation behaviour through negotiation preparation using the VFT technique of identifying objectives.

However, Keeney did not explicitly differentiate between the different negotiation objectives employed in the present study. Keeney did not claim that applying the VFT technique of identifying objectives improves the individual economic outcome (PIEO) and the joint economic outcome (PJEO). Measured against the results of this study, these two hypotheses were rejected, as there are no significant effects of the VFT technique of identifying objectives and the

dependent variables PIEO ($\beta = -.024$; $p = .804$; VIF = 1.018) and PJEO ($\beta = -.049$; $p = .610$; VIF = 1.018). These results do not contradict the findings of Schuster et al. (2020). Schuster et al. (2020) reported that 'participants driven by values [...] ended up with lower joint and individual outcomes' (p. 10). This might be because Schuster et al. (2020) used a value-driven conflict, whereas this study uses a utility-driven conflict. A possible explanation could also be that the VFT technique of identifying objectives transforms a value-driven conflict, which leads to lower joint and individual outcomes (see Schuster 2020), into a utility-driven conflict by using a questionnaire to prepare for negotiations. However, this assumption would have to be supported by further research.

Keeney (1994) also claimed that the VFT technique of identifying objectives 'leads to more productive information collection' (p. 33) due to information processing, and Keeney (1994) subsumed this approach under the characterisation 'empathetic negotiation'. Keeney (1992, p. 259) noted that in empathic negotiations, the interplay between the descriptive and prescriptive aspects of decision-making is essential for creating a win-win alternative. According to Keeney, empathic negotiators use the descriptions of another stakeholder's values as the basis for prescriptive negotiation of that stakeholder's position. Furthermore, empathic negotiators try to balance the overall impact on the other stakeholder and the overall impact on them in one way. Thus, empathic negotiators reach an outcome that they consider prescriptively reasonable and descriptively fair and responsible to other stakeholders.

In the context of this research, this claim was examined with the dependent variable SVI and its subscales. Notably, negotiation preparation with the VFT questionnaire significantly affects the SVI of the counterparts ($\beta = .242$; $p = .015$;

VIF = 1.018). The support for Hypothesis 2.3 that the mean value of the subscales of the SVI (1) instrumental outcome, (2) self, (3) process, (4) relationship, and (5) rapport (mean value of process and relationship) correlates with VFT is remarkable.

Especially since Curhan et al. (2010) found in a multi-round negotiation study that the SVI 'is an asset that pays objective "dividends" over time' (p. 693). Curhan et al. reported that 'individuals earned more objective value in the second negotiation if they had experienced greater SV in the first negotiation' (p. 703). Moreover, 'negotiation dyads created more joint value in the second negotiation if partners had experienced greater total SV in the first negotiation' (Curhan et al., 2010, p. 703). Furthermore, Curhan et al. (2009) found in a study regarding job offer negotiations that 'subjective value predicts greater compensation satisfaction and job satisfaction and lower turnover intention measured 1 year later' (p. 524). These findings, which show the impact of subjective values of negotiation on the objective economic value creation opportunity in subsequent negotiations, make it worthwhile to examine in more detail the subscales of the SVI and how they were affected by the VFT technique of identifying objectives in this study.

The present study administered the questionnaire to assess the SVI directly after the negotiation. At this point, the negotiating parties were not yet aware of the PIEO of the counterpart and PJEO. Because of the lack of knowledge about the negotiation outcomes at this stage, the responses under the SVI subscale 'feelings about the Instrumental outcome' were ambiguous. A non-significant effect was measured between the VFT technique of identifying objectives and the SVI subscale 'feelings about the instrumental outcome' ($\beta = .087$; $p = .393$). In

addition, a non-significant effect was measured between VFT and the SVI subscale 'self' ($\beta = .179$; $p = .073$). A different result was found for the other subscales: 'feelings about the process' and 'feelings about the relationship'.

There is a significant effect of applying the VFT technique of identifying objectives and subjective 'feelings about the process' ($\beta = .228$; $p = .024$). On average, the application of the VFT technique of identifying objectives by both negotiators makes both negotiators more inclined to state that

1. They feel that the counterpart listened to their concerns;
2. They characterise the negotiation process as fair;
3. They are satisfied with the ease (or difficulty) of reaching an agreement;
4. Their counterpart considers their wishes, opinions, or needs.

There is also a significant effect of applying the VFT technique of identifying objectives and subjective 'feelings about the relationship' ($\beta = .250$; $p = .013$). On average, the application of the VFT technique of identifying objectives by both negotiators made the negotiators more inclined to state that

1. They have a positive 'overall' impression of their counterpart;
2. They are satisfied with the relationship with their counterpart as a result of this negotiation;
3. This negotiation makes them trust their counterparts;
4. This negotiation builds a good foundation for a future relationship with the counterpart.

Keeney's (1994) claims that the VFT technique of identifying objectives 'leads to more productive information collection' (p. 33) and that the VFT technique

‘balance[s] overall impacts to the other stakeholder and overall impacts to you in a manner that is prescriptively reasonable to you, and that the other stakeholder will view as descriptively fair and responsible’ (Keeney, 1992, p. 259) are supported by this study’s findings. These results do not contradict the findings of Schuster et al. (2020), who reported that ‘participants with a salient value motive also subjectively evaluated negotiations more negatively concerning the outcome and the process’ (p. 10). This might be because Schuster et al. (2020) used a value-driven conflict, whereas this study uses a utility-driven conflict. A possible explanation could also be that the VFT technique of identifying objectives is a method of transforming a value-driven conflict, which ‘imply that to the extent that negotiations are perceived as value conflicts, even objectively good outcomes come with social costs’ (see Schuster 2020), into a utility-driven conflict by using a questionnaire to prepare for negotiations. However, this assumption would have to be tested by further research.

These claims by Keeney (1992, p. 259) are also supported by other literature: The theoretical rationale for the value of negotiation preparation was summarised by Peterson and Lucas (2001): ‘Planning is undertaken to reduce uncertainty, guide behaviour, and lower the possibility of failure’ (p. 46). In the context of this study, the reduction of uncertainty, the guidance of behaviour, and the reduction of the possibility of failure when applying the VFT technique to identify objectives were supported. This result shows that, first, a negotiator should be aware of their values, alternatives, problems, shortcomings, perspectives, strategic objectives, and generic objectives, as structured by the VFT technique of identifying objectives. This technique might also influence the possibility of unintentionally sending misleading information that might lead to undesirable reciprocity.

The main challenge of negotiation research that is tangential to this discussion is that of information. Information is of particular importance in negotiations, both theoretically and practically (Agnadal, 2017, p. 494; Gettinger et al., 2012, p. 161; Bazerman and Neale, 1992, p. 69). Bazerman and Neale (1992) argued that 'adequate and accurate information is vital to negotiating well' (p. 70). The only way to limit or eliminate indeterminacy is to ensure that sufficient information is available about the characteristics of the negotiating partners and the detailed structure of the negotiation problem (Roth, 1985, p. 1). Several models consider negotiations under the condition of incomplete information. 'These models are concerned with situations wherein each party has private information (e.g., about preferences) that is unavailable to the other side' (Roth, 1985, p. 11). However, this study shows that not only can the private information of the counterpart be unknown, but also that self-conferred information, if unstructured and/or not perceived, can lead to unused – and, thus, missing – information. Therefore, if a negotiator is unaware of their interests, this missing information has a detrimental effect on SVI. Moreover, Roth and Malouf (1979, p. 581) found that the quality of information shared by negotiating partners impacts the outcome of negotiations. This finding was supported by the outcome category SVI in this study, as unstructured and/or unperceived information leads to information mismatch, which impacts negotiation outcomes.

It could be argued that the VFT technique of identifying objectives leads a negotiator to structure and reflect upon their information, thus benefiting both parties' information processing and reducing 'fixed-pie' perceptions based on a 'poor understanding of the opponent's preferences' (Pinkley et al., 1995, p. 102). This argument was supported by Bazerman et al. (1999), who contended that 'in

the context of multi-issue negotiations that characterize many real-world conflicts, it is not difficult to understand how the parties could fail to correctively identify each other's preferences' (p. 1283).

The results of this study must also be critically evaluated for possible weaknesses in the methodology and study design. This evaluation occurs in the following paragraphs.

First, a laboratory experiment allows only a limited generalisation of the results. A discussion of the advantages and disadvantages of this methodological choice was presented in the previous sub-section. This weakness also applies to the results regarding applying the VFT technique of identifying objectives. Second, this study adapted the VFT technique of identifying objectives to the study design and negotiation task, as detailed in Appendices 3 and 4. Moreover, as in Urtiga and Morais (2015), VFT was not used in its full form in this study. Only one VFT technique, the VFT technique of identifying objectives, was employed. The full VFT methodology includes other techniques and may have additional implications for negotiation processes and outcomes. Third, the present study design required both parties of a dyad to apply the VFT technique of identifying objectives, or none of the parties applied the technique. No mixed dyads were formed where one participant received the treatment from the VFT technique of identifying objectives, and the other did not. Therefore, the present study cannot make any statement about the effect of the VFT technique of identifying objectives on negotiation behaviours and negotiation outcomes when only one party of a dyad is subjected to this treatment. Finally, this study design predetermined the issues to be negotiated and the issue cards for the labour and

management representatives. This design enabled accurate measurement of negotiation performance. However, there was no scored option to expand the issues. Therefore, this study cannot make any statement on what influence the VFT technique of identifying objectives has on a possible expansion of the issues and, thereby, on negotiation behaviours and outcomes.

In summary, for Hypotheses 2.1, 2.2, and 2.4–2.8, there are no significant effects of the VFT technique of identifying objectives and the dependent variables. The unsupported Hypothesis H 2.2, which predicted that participants applying the VFT technique of identifying objectives would achieve higher joint economic outcomes in integrative negotiations than those preceding the technique, suggests that the VFT technique of identifying objectives is not appropriate for reducing the fixed-pie perceptions in integrative negotiations. Hypothesis 2.3, which predicted that participants applying the VFT technique of identifying objectives would achieve higher SVIs of the counterpart in integrative negotiations than those preceding the technique, was supported. This finding is in line with Keeney's claims that the VFT technique of identifying objectives 'leads to more productive information collection' (1994, p. 33) and that VFT 'balance[s] overall impacts to the other stakeholder and overall impacts to you in a manner that is prescriptively reasonable to you, and that the other stakeholder will view as descriptively fair and responsible' (Keeney, 1992, p. 259).

Thus, the research question can be answered to which extent the application of the value-focused thinking technique of identifying objectives is a predictor of integrative negotiation performance in the context of labour negotiations: The value-focused thinking technique of identifying objectives is a predictor of the

subjective value inventory, but not of the individual economic outcome, not of the joint economic outcome, and not of the integrative negotiation behaviours.

The discussion of the findings on the VFT technique of identifying objectives as a predictor of integrative negotiation outcomes and integrative negotiation behaviour leads to four recommendations for further research. First, experimental studies could be applied to compare various preparatory methodologies to evaluate whether the VFT technique of identifying objectives constitutes a scientific advance. Second, experimental studies could test the full VFT methodology as a predictor of negotiation outcomes and behaviour. Third, the full VFT methodology or the VFT technique of identifying objectives could be tested in mixed dyads. One party would receive the VFT treatment while the other party would not. It would be interesting under these conditions to investigate the extent to which the impact on the SVI (counterpart) and SVI (self) would be altered. Fourth, according to Pruitt (2006), there is a valid concept of starting with a low-cost laboratory study and then testing the findings in a real-world setting. Thus, the findings should be applied in the field after the above recommendations have been implemented and an experimental laboratory basis has been established.

In summary, this sub-section discussed the results of Hypotheses 2.1–2.8, which concern the VFT technique of identifying objectives as a predictor of integrative negotiation outcomes and behaviour. There is a significant effect of the VFT technique of identifying objectives and the dependent variable SVI. However, the rejection of Hypothesis H 2.2, which posited that participants applying the VFT technique of identifying objectives would achieve higher joint economic outcomes in integrative negotiations than those foregoing the technique, suggests that the

VFT technique of identifying objectives is not appropriate for reducing fixed-pie perceptions in integrative negotiations. Four methodological limitations were outlined in this sub-section: The choice of a laboratory experiment, the scope of application of the VFT technique, the lack of mixed dyads regarding the use of the technique, and the use of predetermined issue cards.

The following sub-section presents and discusses the integrative negotiation behaviours by Weingart (1996) as predictors for the PIEO, PJEO, and SVI.

5.1.3 Integrative Negotiation Behaviour

This impact of integrative negotiation behaviours on the integrative negotiation outcome of the Pareto efficiency of the joint economic outcome (PJEO) has been examined by Weingart et al. (1996). The behaviours of (a) making multi-issue offers, (b) providing information about priorities across issues, (c) asking questions about priorities, (d) suggesting packaging, and (e) suggesting delayed reciprocity are positively correlated with the PJEO (Weingart et al., 1996, p. 1214). In this thesis, the five behavioural tactics by Weingart et al. (1996) are not only considered behavioural objectives to influence the economic outcome of the negotiation (see H 1.4–H 1.8 and H 2.4–H 2.8) but also hypothesised as an individual theory that claims to affect all integrative negotiation outcomes of the PIEO, PJEO, and SVI. Similar to H 1.1–H 1.3 and H 2.1–H 2.3, the integrative negotiation behaviours prescribed by Weingart et al. (1996) are tested in this study for their impacts on negotiation outcomes, which are recorded as individual

economic outcomes, joint economic outcomes, and SVI outcomes. Accordingly, the following hypotheses are derived:

- H 3.1:** Participants applying the integrative negotiation behaviour of making multi-issue offers achieve higher individual economic outcomes in integrative negotiations.
- H 3.2:** Participants applying the integrative negotiation behaviour of making multi-issue offers achieve higher joint economic outcomes in integrative negotiations.
- H 3.3:** Participants applying the integrative negotiation behaviour of making multi-issue offers achieve higher subjective value inventories of the counterpart in integrative negotiations.
- H 3.4:** Participants applying the integrative negotiation behaviour of providing information about priorities across issues achieve higher individual economic outcomes in integrative negotiations.
- H 3.5:** Participants applying the integrative negotiation behaviour of providing information about priorities across issues achieve higher joint economic outcomes in integrative negotiations.
- H 3.6:** Participants applying the integrative negotiation behaviour of providing information about priorities across issues achieve higher subjective value inventories of the counterpart in integrative negotiations.

- H 3.7:** Participants applying the integrative negotiation behaviour of asking questions about priorities achieve higher individual economic outcomes in integrative negotiations.
- H 3.8:** Participants applying the integrative negotiation behaviour of asking questions about priorities achieve higher joint economic outcomes in integrative negotiations.
- H 3.9:** Participants applying the integrative negotiation behaviour of asking questions about priorities achieve higher subjective value inventories of the counterpart in integrative negotiations.
- H 3.10:** Participants applying the integrative negotiation behaviour of suggesting packaging achieve higher individual economic outcomes in integrative negotiations.
- H 3.11:** Participants applying the integrative negotiation behaviour of suggesting packaging achieve higher joint economic outcomes in integrative negotiations.
- H 3.12:** Participants applying the integrative negotiation behaviour of suggesting packaging achieve higher subjective value inventories of the counterpart in integrative negotiations.
- H 3.13:** Participants applying the integrative negotiation behaviour of suggesting delayed reciprocity achieve higher individual economic outcomes in integrative negotiations.

H 3.14: Participants applying the integrative negotiation behaviour of suggesting delayed reciprocity achieve higher joint economic outcomes in integrative negotiations.

H 3.15: Participants applying the integrative negotiation behaviour of suggesting delayed reciprocity achieve higher subjective value inventories of the counterpart in integrative negotiations.

In summary, for Hypotheses 3.1–3.15, six hypotheses are supported, and nine hypotheses are unsupported by this study's data. The following table summarises the results of the linear regression analyses.

| H 3.1: Participants applying the integrative negotiation behaviour of making multi-issue offers achieve higher individual economic outcomes in integrative negotiations. | | | | | |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|---------|------|-----------------------|---------------|
| Independent variable | Dependent variable | β | p | Finding | Result |
| Making multi-issue offers | PIEO | .229 | .021 | Significant effect | Supported |
| H 3.2: Participants applying the integrative negotiation behaviour of making multi-issue offers achieve higher joint economic outcomes in integrative negotiations. | | | | | |
| Independent variable | Dependent variable | β | p | Finding | Result |
| Making multi-issue offers | PJEO | .226 | .021 | Significant effect | Supported |
| H 3.3: Participants applying the integrative negotiation behaviour of making multi-issue offers achieve higher subjective value inventories of the counterpart in integrative negotiations. | | | | | |
| Independent variable | Dependent variable | β | p | Finding | Result |
| Making multi-issue offers | SVI | -.149 | .230 | No significant effect | Not supported |
| H 3.3: Participants applying the integrative negotiation behaviour of providing information about priorities across issues achieve higher individual economic outcomes in integrative negotiations. | | | | | |
| Independent variable | Dependent variable | β | p | Finding | Result |
| Providing information about priorities across issues | PIEO | .172 | .083 | No significant effect | Not supported |

| | | | | | |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|---------|------|-----------------------|---------------|
| H 3.4: Participants applying the integrative negotiation behaviour of providing information about priorities across issues achieve higher joint economic outcomes in integrative negotiations. | | | | | |
| Independent variable | Dependent variable | β | p | Finding | Result |
| Providing information about priorities across issues | PJEO | .173 | .076 | No significant effect | Not supported |
| H 3.5: Participants applying the integrative negotiation behaviour of providing information about priorities across issues achieve higher subjective value inventories of the counterpart in integrative negotiations. | | | | | |
| Independent variable | Dependent variable | β | p | Finding | Result |
| Providing information about priorities across issues | SVI | .193 | .061 | No significant effect | Not supported |
| H 3.7: Participants applying the integrative negotiation behaviour of asking questions about priorities achieve higher individual economic outcomes in integrative negotiations. | | | | | |
| Independent variable | Dependent variable | β | p | Finding | Result |
| Asking questions about priorities | PIEO | .178 | .065 | No significant effect | Not supported |
| H 3.8: Participants applying the integrative negotiation behaviour of asking questions about priorities achieve higher joint economic outcomes in integrative negotiations. | | | | | |
| Independent variable | Dependent variable | β | p | Finding | Result |
| Asking questions about priorities | PJEO | .216 | .005 | Significant effect | Supported |
| H 3.9: Participants applying the integrative negotiation behaviour of asking questions about priorities achieve higher subjective value inventories of the counterpart in integrative negotiations. | | | | | |
| Independent variable | Dependent variable | β | p | Finding | Result |
| Asking questions about priorities | SVI | .044 | .661 | No significant effect | Not supported |
| H 3.10: Participants applying the integrative negotiation behaviour of suggesting packaging achieve higher individual economic outcomes in integrative negotiations. | | | | | |
| Independent variable | Dependent variable | β | p | Finding | Result |
| Suggesting packaging | PIEO | .290 | .003 | Significant effect | Supported |
| H 3.11: Participants applying the integrative negotiation behaviour of suggesting packaging achieve higher joint economic outcomes in integrative negotiations. | | | | | |
| Independent variable | Dependent variable | β | p | Finding | Result |
| Suggesting packaging | PJEO | .176 | .074 | No significant effect | Not Supported |
| H 3.12: Participants applying the integrative negotiation behaviour of suggesting packaging achieve higher subjective value inventories of the counterpart in integrative negotiations. | | | | | |
| Independent variable | Dependent variable | β | p | Finding | Result |
| Suggesting packaging | SVI | -.096 | .358 | No significant effect | Not supported |

| H 3.13: Participants applying the integrative negotiation behaviour of suggesting delayed reciprocity achieve higher individual economic outcomes in integrative negotiations. | | | | | | |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|--------------------|---------|------|-----------------------|---------------|
| Independent variable | | Dependent variable | β | p | Finding | Result |
| Suggesting reciprocity | delayed | PIEO | .219 | .024 | Significant effect | Supported |
| H 3.14: Participants applying the integrative negotiation behaviour of suggesting delayed reciprocity achieve higher joint economic outcomes in integrative negotiations. | | | | | | |
| Independent variable | | Dependent variable | β | p | Finding | Result |
| Suggesting reciprocity | delayed | PJEO | .219 | .022 | Significant effect | Supported |
| H 3.15: Participants applying the integrative negotiation behaviour of suggesting delayed reciprocity achieve higher subjective value inventories of the counterpart in integrative negotiations. | | | | | | |
| Independent variable | | Dependent variable | β | p | Finding | Result |
| Suggesting reciprocity | delayed | SVI | - .148 | .145 | No significant effect | Not supported |

Table 35 Summary of findings for H 3.1–H 3.15 (devised by the author)

These results can only be partially compared with those of Weingart et al. (1996). Weingart et al. (1996) investigated the extent to which the information on integrative behaviours can manipulate negotiators' behaviour. In their study, an experimental group was equipped with a list of negotiation tactics with descriptions and examples. For example, participants were told to exchange information, not to assume a zero-sum game, and to trade off issues (see Weingart et al. 1996, p. 117). The coding scheme then identified different negotiation behaviours, including the integrative negotiation behaviours of (a) making multi-issue offers, (b) providing information about priorities across issues, (c) asking questions about priorities, (d) suggesting packaging, and (e) suggesting delayed reciprocity. Weingart et al. (1996, p. 1213) found that all of these integrative behaviours positively impacted the Pareto efficiency of the joint economic outcome. Furthermore, Weingart et al. (1996, p. 1210) examined the absence or presence of integrative negotiation behaviours, treating each behaviour as a dichotomous variable (absent = 1; present = 2). A behaviour was

considered present if it occurred at least once during the negotiation and absent if it never occurred. The authors summarised their findings:

Our examination of the presence versus absence of these tactics explored that critical dimension of tactical behaviour. Significantly, dyads without knowledge about tactics were likelier to never make multi-issue offers, never provide information about priorities across issues, never ask questions about priorities, never suggest packaging, and never suggest delayed reciprocity. These tactics were also positively correlated with [joint] outcome, suggesting that dyads that do not engage in these tactics at all are at a severe disadvantage, and that disadvantage is reversed with knowledge (p. 1214).

Weingart et al. (1996) concluded that 'when negotiators are provided with such a list, joint outcome improves significantly' (p. 1215).

Comparing the results of Weingart et al. (1996) with the present study, five hypotheses are of interest: First, it was hypothesised that participants applying the integrative negotiation behaviour of making multi-issue offers achieve higher joint economic outcomes in integrative negotiations. Linear regression analysis demonstrates a significant effect of the application of making multi-issue offers on the Pareto efficiency of the joint economic outcome ($\beta = .226$; $p = .021$; VIF = 1.079) and, thus, supports Hypothesis 3.2 and the conclusion of Weingart et al. (1996). Second, it was hypothesised that participants applying the integrative negotiation behaviour of providing information about priorities across issues achieve higher joint economic outcomes in integrative negotiations. Linear regression analysis demonstrates a non-significant effect of the application of providing information about priorities across issues on the Pareto efficiency of the joint economic outcome ($\beta = .173$; $p = .075$; VIF = 1.062), thus not supporting Hypothesis 3.5 and the conclusion of Weingart et al. (1996). Third, it was hypothesised that participants applying the integrative negotiation behaviour of

asking questions about priorities achieve higher joint economic outcomes in integrative negotiations. Linear regression analysis demonstrates a significant effect of the application of asking questions about priorities on the Pareto efficiency of the joint economic outcome ($\beta = .261$; $p = .005$; VIF = 1.013) and, thus, supports Hypothesis 3.8 and the conclusion of Weingart et al. (1996). Fourth, it was hypothesised that participants applying the integrative negotiation behaviour of suggesting packaging achieve higher joint economic outcomes in integrative negotiations. Linear regression analysis demonstrates a non-significant effect of the application of suggesting packaging on the Pareto efficiency of the joint economic outcome ($\beta = .176$; $p = .074$; VIF = 1.082) and, thus, contradicts Hypothesis 3.11 and the conclusion of Weingart et al. (1996). Finally, it was hypothesised that participants applying the integrative negotiation behaviour of suggesting delayed reciprocity achieve higher joint economic outcomes in integrative negotiations. Linear regression analysis demonstrates a significant effect of the application of suggesting delayed reciprocity on the Pareto efficiency of the joint economic outcome ($\beta = .219$; $p = .022$; VIF = 1.032) and, thus, supports Hypothesis 3.14 and the conclusion of Weingart et al. (1996).

In summary, three of the five integrative behaviours significantly affect the Pareto efficiency of the joint economic outcome. Therefore, aiming for the integrative negotiation outcome of the Pareto efficiency of the joint economic outcome, the integrative negotiation behaviours of making multi-issue offers, asking questions about priorities, and suggesting delayed reciprocity provide significant effects for improving this aim.

Weingart et al. (1996) did not conduct analyses regarding the Pareto efficiency of the individual economic outcome and SVI as integrative negotiation outcomes.

Accordingly, a comparison of these results is not possible, and this study constitutes an extension of the results of Weingart et al. (1996) with the following contribution to theory:

First, aiming for the integrative negotiation outcome of the Pareto efficiency of the individual economic outcome, the integrative behaviours of making multi-issue offers ($\beta = .229$; $p = .021$; VIF = 1.079), suggesting packaging ($\beta = .290$; $p = .003$; VIF = 1.082) and suggesting delayed reciprocity ($\beta = .219$; $p = .024$; VIF = 1.032) provide significant effects for improving this aim. Second, aiming for the integrative negotiation outcome of subjective value inventory, none of the integrative negotiation behaviours significantly improve this aim.

The following sub-section discusses the empirical comparison of the two theories under consideration.

5.1.4 Empirical Comparison of Theories

This thesis aims to test and compare two theories, the SIM by Ade et al. (2020) and the VFT technique of identifying objectives by Keeney (1992), both of which claim to affect negotiation performance and answers the research question of which combination makes the application one of the two theories lead to better results in integrative business negotiations in the context of labour negotiations. Both theories are published and peer-reviewed, which supports their (1) internal consistency, conclusions and (2) scientific character. However, these theories had not yet been experimentally tested and compared.

The two previous sub-sections, 6.1.1 and 6.1.2, discussed the individual outcomes for the independent variables SIM scores and the VFT technique of identifying objectives. Based on the results of this study and the defined negotiation outcomes (PIEO, PJEO, and SVI), only one significant effect was found. Hypothesis 2.3 predicted that participants applying the VFT technique of identifying objectives would achieve higher SVIs of the counterpart in integrative negotiations than those foregoing the technique. The data in this study indicate that applying the VFT technique of identifying objectives significantly affects the SVIs of the counterpart ($\beta = .242$; $p = .015$; VIF = 1.018). Accordingly, Hypothesis 2.3 can be supported. Meanwhile, Hypotheses 1.1–1.8, 2.1, 2.2, and 2.4–2.8 were not supported. Given the lack of significant effects, an empirical comparison of the theories to assess which generates superior negotiation outcomes is obsolete.

Thus, the research question can be answered in which combination does the application of one of the two theories lead to better results in integrative business negotiations in the context of labour negotiations: Only the value-focused thinking technique of identifying objectives is a predictor of the subjective value inventory, but not of the individual economic outcome, not of the joint economic outcome, and not of the integrative negotiation behaviours. The scale for integrative mindset is not a predictor concerning any of the dependent variables.

The following section of this chapter presents the discussion of control variables.

5.1.5 Discussion of Control Variables

Three variables were used to control for other factors that might influence the results. This thesis followed Sharma (2015) and operationalised age, professional experience, and gender as control variables.

First, this study found that the age of participants was neither a non-significant predictor of negotiation outcomes nor a significant predictor of negotiation behaviours.

Second, this study found that participants' professional experience was neither a non-significant predictor of negotiation outcomes nor a significant predictor of negotiation behaviours.

Third, this study's results show two significant effects of gender on negotiation outcomes. There is a significant effect of gender on the Pareto efficiency of the individual economic outcome ($\beta = .335$; $p = .002$) and a significant effect of gender on the Pareto efficiency of the joint economic outcome ($\beta = .377$; $p = .000$).

The literature on whether men or women negotiate differently and achieve different outcomes is inconclusive (see Mazei, Zerres and Hüffmeier, 2021; Shan et al., 2019; Leibbrandt and List, 2015; Marks and Harold, 2011; Babcock and Laschever, 2003; Olekalns and Smith, 2000; Stuhlmacher and Walters, 1999). Some research has demonstrated that women are more likely to outperform men in negotiations than in the reverse (Shan et al., 2019, p. 651). In contrast, other research indicates that men negotiate better outcomes on average than women (Stuhlmacher and Walters, 1999, p. 52; Marks and Harold, 2011, p. 387). Leibbrandt and List (2015) found that when explicitly mentioning 'the possibility

that wages are negotiable, [...] differences disappear completely' (pp. 2016-2017). Therefore, this study contradicts Leibbrandt and List (2015). In this study, explicit reference was made to the possibility of negotiation. Nevertheless, male participants outperformed female participants.

In addition to research on gender-related negotiation results, there are studies on the different motives of the sexes. For example, Babcock and Laschever (2003) found that women are 'other-oriented' and that men are 'self-oriented', resulting in women highlighting relationships and men undervaluing relationships. The present study cannot support this conclusion. This study found a non-significant effect of gender and the SVI with its subscale of 'relationship' ($\beta = .074$; $p = .439$). This study also contradicts the expectation by Mazei, Zerres, and Hüffmeier (2021) that men will 'limit the exchange of information about their interests and priorities' (p. 116). This study found a significant effect of gender on the integrative negotiation behaviour of providing information about priorities across issues ($\beta = .244$; $p = .023$). Moreover, this study also contradicts the conclusion of Mazei, Zerres, and Hüffmeier (2021) that men 'gather less information that could allow them to revise the (erroneous) assumption that the parties' interests cannot be integrated' (p. 116), as there is a non-significant effect of gender on the integrative negotiation behaviour of (c) asking questions about priorities ($\beta = -.061$; $p = .574$).

In summary, there are contradictory research findings regarding the influence of gender on integrative negotiation outcomes and integrative negotiation behaviours. Nevertheless, this research indicates that male negotiators tend to achieve improved PIEO ($\beta = .335$; $p = .002$) and PJEO ($\beta = .377$; $p = .000$). Moreover, this research suggests that male negotiators are more likely to utilise

integrative negotiation behaviours, especially in providing information about priorities across issues ($\beta = .244$; $p = .023$).

The following section of this chapter presents this research's contributions to theory.

5.2 Contribution to Theory

This section presents three theoretical contributions of this research.

The first contribution to theory concerns the Scale for Integrative Mindset by Ade et al. (2020). Ade et al. (2020) pointed to the possibility of further research:

The SIM lays the groundwork for future research, especially experimental studies based on behavioural criteria data, that is, data showing how people with high or low SIM scores perform in integrative negotiations. Such studies would allow researchers to understand to which extent the SIM can predict negotiation performance. (Ade et al., 2020, p. 746)

The present experimental research generates new knowledge on how individuals with high or low SIM scores perform in integrative negotiations. Results on Hypotheses 1.1–1.8 demonstrate that there are no significant effects of the scale for integrative mindset on the integrative negotiation outcomes and integrative negotiation behaviours. Therefore, the non-significant effects suggest that the SIM is inappropriate for reducing the fixed-pie perceptions in integrative negotiations.

The second contribution to theory concerns the VFT technique of identifying objectives by Keeney (1994) as a predictor of negotiation outcomes and

behaviour. Although Keeney (1992) explicitly mentioned the applicability of his methodology to labour–management negotiations (pp. 238-239), the VFT methodology has remained largely unconsidered in business negotiation research (cf. meta-analysis by Parnell et al., 2013; Pacheco et al., 2019, p. 502), and the use of VFT as a business negotiation preparation methodology remained an untested theory. The present research generates new knowledge on the effectiveness of the VFT technique in identifying business negotiation objectives. For Hypotheses 2.1, 2.2, and 2.4–2.8, there are no significant effects of the VFT technique of identifying objectives on the dependent variables of the Pareto efficiency of the individual economic outcome, the Pareto efficiency of the joint economic outcome, and the integrative negotiation behaviours. The unsupported Hypothesis H 2.2, which predicted that participants applying the VFT technique of identifying objectives would achieve higher joint economic outcomes in integrative negotiations than those foregoing the technique, suggests that the VFT technique of identifying objectives is not appropriate for reducing the fixed-pie perceptions in integrative negotiations. Hypothesis 2.3, which predicted that participants applying the VFT technique of identifying objectives would achieve higher SVIs of the counterpart in integrative negotiations than those foregoing the technique, was supported. This finding is particularly relevant to the theory of VFT, as Keeney's (1992) claim that VFT 'balance[s] overall impacts to the other stakeholder and overall impacts to you in a manner that is prescriptively reasonable to you, and that the other stakeholder will view as descriptively fair and responsible' (p. 259) was first supported in an experimental negotiation study.

The third contribution to theory concerns the integrative negotiation behaviours of (a) making multi-issue offers, (b) providing information about priorities across issues, (c) asking questions about priorities, (d) suggesting packaging, and (e) suggesting delayed reciprocity, as prescribed by Weingart et al. (1996). Even though the impact of the integrative negotiation behaviours on the Pareto efficiency of the joint economic outcome has been examined by Weingart et al. (1996), this study further extends their work by differentiating the negotiation outcome with three dependent variables: the PIEO, PJEO, and SVI of the counterpart. Aiming for the Pareto efficiency of the joint economic outcome, the integrative negotiation behaviour of making multi-issue offers, asking questions about priorities and suggesting delayed reciprocity significantly improve this aim. Therefore, this study reinforces three of the five integrative behaviours. As Weingart et al. (1996) did not conduct analyses regarding the Pareto efficiency of the individual economic outcome and SVI of the counterparts as integrative negotiation outcomes, this study constitutes an extension of the results of Weingart et al. (1996) with the following contribution to theory: Aiming for the integrative negotiation outcome of Pareto efficiency of the individual economic outcome, the integrative behaviour of making multi-issue offers, suggesting packaging and suggesting delayed reciprocity provide significant effects for improving this aim. Aiming for the integrative negotiation outcome of subjective value inventory, none of the integrative negotiation behaviours significantly improve this aim.

The following section of this chapter presents the practical contributions of this research regarding the identification of suitable negotiators and the sharpening of negotiation training programmes.

5.3 Contribution to Practice

Bazerman and Neale (1992) claimed that ‘nothing is more central to business than negotiation’ (p. 68) and that negotiation is a recurring part of professional life. ‘Professionals negotiate to buy, sell or sign agreements’ (Ramirez-Marin et al., 2020, p. 407).

Labour negotiations have long been the subject of research (Sengenberger, 2015; Walton and McKersie, 1991, p. 1). Walton and McKersie (1991) stated that the ‘determination of wages, hours, and working conditions [...] involves the allocation of scarce resources [...] is assumed to be some conflict of interest between management and unions’ (p. 11). The ‘negotiator’s dilemma’, which describes the conflict between creating and claiming value, also applies to integrative negotiations (Lax and Sebenius, 1986, p. 154). The following two sub-sections transfer the scientific findings of this study into practice. The factors that might obstruct integrative potential in labour negotiations are inappropriate personality traits of the negotiators and an inappropriate methodological approach (cf. Pinkley, 1995, p. 110). Accordingly, two business problems are identified.

First, organisations and their representatives may use the scale for integrative mindset proposed by Ade et al. (2020) to test the personality traits of negotiators. However, the effectiveness of the scale for integrative mindset for achieving integrative negotiation objectives has not yet been confirmed in a laboratory experiment. The first sub-section explores whether organisations and their representatives should apply the SIM scores to test the relevant personality traits of their negotiators or whether organisations and their representatives should

utilise other strategies to identify appropriate negotiators in integrative negotiations. The second sub-section assesses whether organisations and their representatives should use the VFT technique of identifying objectives by Keeney (1994) in the pre-negotiation phase. The third sub-section offers a conclusion and overall recommendation.

5.3.1 Identification of Appropriate Integrative Negotiators

According to Ade et al. (2020, p. 740), little is known about why some negotiators perform better in integrative negotiations than others. Ade et al. (2020) echoed Pinkley's (1995, p. 110) argument that one factor that can obstruct integrative potential in labour negotiations is inappropriate personality traits (Ade et al., 2020). The SIM represents one potential tool for identifying appropriate personality traits of negotiators in labour negotiations (Ade et al., 2020). The 15-item questionnaire was employed to measure the characteristics of collaboration, curiosity, and cooperation. The results of this study indicate no significant effects of SIM scores on negotiation outcomes or negotiation behaviour. Therefore, it is concluded that using SIM scores does not contribute to identifying appropriate negotiators. This study hypothesised that the personal characteristics of the negotiators measured by the Scale for Integrative Mindset by Ade et al. (2020) cause the fixed-pie assumption, which, in turn, influences integrative negotiation outcomes and integrative negotiation behaviours. However, the hypotheses were not supported. Thus, this study provides original knowledge that organisations and their representatives should not apply the SIM by Ade et al. (2020) to test the

personality traits of their negotiators for identifying appropriate negotiators in integrative negotiations.

The following sub-section discusses an inappropriate methodological approach as a factor that might obstruct integrative potential in labour negotiations.

5.3.2 Sharpening Negotiator Training Programmes

The second factor that might obstruct integrative potential in labour negotiations is an inappropriate methodological approach. The existing literature suggests that companies and individuals are eager for guidance on how to negotiate more effectively and often look to academics to translate the current state of knowledge for their purposes (Chapman et al., 2017; Sharma, 2015; Sharma, Bottom and Elfenbein, 2013; Thompson, 2008; Malhotra and Bazerman, 2007; Brett, 2001). Peterson and Lucas (2001) allocated the problem to the pre-negotiation phase: 'From a managerial perspective, without a more thorough understanding of the factors and behaviours of the pre-negotiation phase, the ability to select and direct negotiators/negotiating teams will continue to be negatively impacted' (p. 60). Sharma et al. (2019) similarly stated that an 'organization that can train and/or select better negotiators [...] function[s] more effectively' (p. 145), and Chapman et al. (2017) argued:

Negotiation skills are valuable and pervasive across many organizations, so recognizing the development process of obtaining such skills has implications for academics and practitioners. (p. 953)

The previous sub-section concluded that the SIM, as a negotiator selection questionnaire, is unsuitable or (at least) inconclusive to increase integrative potential.

This sub-section identifies behaviours that might support increasing negotiation effectiveness in integrative negotiations. O'Connor and Adams (1999) found that training improves negotiation effectiveness. However, room remains to improve effectiveness (Chapman et al., 2017; Lewicki, 2014; Movius, 2008). For instance, Sharma et al. (2013) concluded that 'we can be trained to expand our behavioural repertoire' and that developing greater confidence from in-class practice can increase self-efficacy' (p. 322). However, there are different arguments regarding which factors lead to better utilisation of integrative negotiation elements. Therefore, additional knowledge about whether organisations and their representatives should sharpen negotiator training programmes to equip negotiators with appropriate tools is required. This study hypothesised that the VFT technique of identifying objectives increases effectiveness in integrative negotiations to identify appropriate methodological approaches in the pre-negotiation phase.

The results of this study indicate that various behaviours can achieve different negotiation outcomes. For a diversified consideration of negotiation effectiveness, Sharma et al. (2018) claimed:

Negotiation effectiveness is an inherently multidimensional construct, and the field needs a multifactor model of negotiation performance that can examine the effectiveness of an individual across these different negotiation processes. (p. 158)

This study synthesised economic, psychological, and sociological perspectives and individual indicators to determine negotiation performance. Success in integrative negotiations has been defined in this study by the criteria of the PIEO, PJEO, and SVI. Two theories should be integrated into negotiation training to achieve superior negotiation outcomes in these categories: the VFT technique of identifying objectives suggested by Keeney (1996) and the integrative negotiation behaviours outlined by Weingart et al. (1996).

This study found that the presence of integrative negotiation behaviours prescribed by Weingart (1996) is a suitable predictor of the PIEO and PJEO. Therefore, negotiation training programmes should emphasise the following individual integrative negotiation behaviours:

- a) Making multi-issue offers, which is defined as the action of making 'an offer in two or more issues under discussion' (Weingart, 1996, p. 1217).
- b) Providing information about priorities across issues is defined as stating 'which issues are more or less relevant to oneself' (Weingart, 1996, p. 1217).
- c) Asking questions about priorities is asking 'which issues are more or less important to the other party' (Weingart, 1996, p. 1217).
- d) Suggesting packaging is defined as suggesting a 'discussion of two or more issues at the same time' (Weingart, 1996, p. 1217).
- e) Suggesting delayed reciprocity is defined as suggesting 'a concession to be made in exchange for an unidentified future concession' (Weingart, 1996, p. 1217).

In summary, this study supports the results of Weingart (1996), who recommended that practitioners integrate the integrative negotiation behaviours prescribed by Weingart (1996) into training to improve the PIEO and PJEO.

The second theory that should be integrated into negotiation training is Keeney's VFT technique of identifying objectives (1996). This study hypothesised that participants applying the VFT technique of identifying objectives would achieve higher SVIs of the counterpart in integrative negotiations than those foregoing this technique. The data in this study show that applying the VFT technique of identifying objectives significantly affects the SVIs of the counterpart. Combined with the findings of Curhan et al. (2006) showing that 'a higher Subjective Value Inventory score after a negotiation predicts a greater willingness to engage in cooperative interactions with the same negotiator' (Curhan et al., 2006, p. 506) and that negotiators with higher SVI scores were more willing to work with their respective negotiators in a team, the use of the VFT technique has added value in integrative labour negotiations. Two characteristics of this negotiation preparation methodology are of particular importance to practitioners: Its influence on the perception of the counterpart and the perception of one's negotiation performance.

First, the VFT technique of identifying objectives affects not only the total SVI and the mean of the subscales but also two out of four subscales. The VFT technique of identifying objectives affects the perception of the counterpart regarding (a) feelings about the self, (b) feelings about the process, and (c) feelings about the relationship. This result indicates that the VFT technique of identifying objectives can create an empathetic negotiation, as anticipated by Keeney (1996). The second characteristic of this negotiation preparation methodology of importance

to practitioners is its influence on the perception of one's negotiation performance. The significant effect of the SVI (self) on the SVI (CP) indicates that a negotiator's feelings (positive or negative) correspond to the direction of the other party's feelings. This study's result is relevant for negotiation training since the availability of information appropriate to the parties is the case in relatively few negotiation situations (see Bazerman and Neale, 1992, pp. 70-21). The knowledge that the feeling of the negotiating partner is reflected in one's feelings might empower negotiators to acquire additional relevant information in the aftermath of negotiations. By completing an SVI questionnaire, a negotiator can assess the counterpart's feelings through their feelings.

Interestingly, this effect does not depend on whether the negotiation preparation methodology was used. The effect of one's own SVI on the SVI of the negotiation partner is evident even without using the VFT technique of identifying objectives. Therefore, this study recommends that negotiation training programmes and practitioners integrate the subjective value inventory (SVI) by Curhan et al. (2006) into negotiation training and analyses. First, the subjective value inventory should be used in the primary theoretical teaching of negotiation and studied by the participants. Thus, in addition to the quantifiable distributive and integrative outcomes of negotiations, the perspective and feelings of the negotiating partner would also be considered an outcome of the negotiation. Second, the subjective value inventory should also be given in negotiation simulations as a quantifiable outcome. For example, it could be specified that the distributive negotiation outcome (PIEO) only counts if the negotiating partner scores the negotiation at least 5.0 points (out of a maximum of 7.0 points) in all subscales of the SVI. Different negotiation styles, behaviour, and communication patterns could be

practised to achieve different target SVIs. Even more precise negotiation styles, behaviour, and communication patterns could be trained by using and evaluating the four subscales of the SVI.

Third, the SVI could be helpful in independent analysis. In actual negotiations, hardly any negotiating partner will be willing to fill in their SVI – and even if they are willing to fill in the SVI, the risk of strategic misrepresentation (see Raiffa, 1982) would be substantial. Therefore, it is recommended to train empathy in negotiations in such a way that a negotiator must estimate the SVI of the counterpart. Subsequently, the SVI (estimate vs actual SVI of the counterpart) could be compared to validate, falsify, and, if necessary, optimise one's empathy.

This study offers four recommendations for practitioners and negotiation training programmes. First, individual character traits, measured by the SIM score by Ade et al. (2020), have not significantly affected integrative negotiation outcomes and integrative negotiation behaviours. Second, the usefulness of the integrative negotiation behaviours defined by Weingart (1996) was supported. These negotiation behaviours increase the likelihood of superior individual and joint economic outcomes. Third, this study demonstrated that applying the VFT technique of identifying objectives will likely influence the counterpart's SVI positively. Finally, this study indicates that one's own SVI (except the instrumental outcome) reflects the SVI of the counterpart. These insights allow practitioners and negotiation training programmes to continuously improve the quality of the negotiation process, relationship, and rapport with the counterpart without explicitly involving the other party.

These recommendations are presented in the following chart of the negotiation process.

| | Pre-negotiation phase | Negotiation phase | Post negotiation phase |
|------------------------------|------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|----------------------------------------------------------------------------|
| Activity recommended: | Application of the VFT technique of identifying objectives (see Keeney, 1996) ↓ | Application of integrative negotiation behaviours (see Weingart, 1996) ↓ | Application of SVI-questionnaire (see Curhan et al., 2006) on own SVI ↓ |
| Objective: | Affecting the subjective value inventory of the counterpart | Affecting individual and joint economic outcome | Obtaining information on the subjective value inventory of the counterpart |

Figure 28: Recommendations for practice (devised by the author)

5.4 Conclusion

This thesis aims to test and compare two theories, the SIM by Ade et al. (2020) and the VFT technique of identifying objectives by Keeney (1992), which both claim to affect negotiation performance. The following figure summarizes the research questions and the contributions to theory and practice.

| | Research Question: | Contribution to Theory: | Contribution to Practice: |
|-----------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1 SIM | To which extent is the scale for integrative mindset score a predictor of integrative negotiation performance in the context of labour negotiations? | <ol style="list-style-type: none"> 1. The research generates new knowledge that the SIM is not appropriate for reducing the fixed-pie perceptions in integrative negotiations. 2. SIM could be optimized by incorporating the personal characteristics of cognitive ability and conscientiousness (see Barry and Friedman, 1998), resistance to yielding (see De Dreu, Weingart and Kwon, 2000), and the Big 5 personality traits (see Sharma et al., 2013). | This study provides original knowledge that organisations and their representatives should not apply the SIM by Ade et al. (2020) to test the personality traits of their negotiators for identifying appropriate negotiators in integrative negotiations. |
| 2 VFT | To which extent is the application of the value-focused thinking technique of identifying objectives a predictor of integrative negotiation performance in the context of labour negotiations? | <p>The research generates new knowledge on how individuals using the VFT technique of identifying objectives perform in integrative negotiations.</p> <ol style="list-style-type: none"> 1. Hypothesis H 2.2 suggests that the VFT technique is not appropriate for reducing the fixed-pie perceptions in integrative negotiations (H 2.2, not supported). 2. Hypothesis 2.3 suggests that the VFT technique is appropriate for improving the subjective feelings of the counterpart (H 2.3, supported). | The data in this study show that applying the VFT technique of identifying objectives has a significant effect on the SVIs of the counterpart and should be integrated to sharpen negotiator training programmes. |

Figure 29: Summary of research questions, the contributions to theory and the contributions to practice

Ade et al. (2018) claimed that the negotiator's mindset is one potential explanation for why some negotiators tend to achieve better results in integrative negotiations. Ade et al. (2020, p. 740) consequently aimed to map and measure the integrative mindset with a structured questionnaire: The 15-item SIM. In contrast, Keeney (1992) believed that values should be the driving factor in

negotiations and proposed a methodological approach that enables negotiators to identify integrative components of negotiation and therefore influence the outcome of a negotiation. Keeney (1996) introduced the question-based VFT technique of identifying objectives for the systematic qualitative structuring of values. Both theories were published and peer-reviewed. However, the two theories have not been experimentally tested and compared. The present study addressed this research gap. For this study, negotiation performance was defined using the PIEO, the PJEO, and the SVI of the counterpart, as suggested by Curhan et al. (2006), and the five integrative negotiation behaviours prescribed by Weingart (1996).

The central element of this experimental study is a two-party, multi-issue, quantifiable negotiation case. In this case, which is based on a case by Giacomantonio et al. (2010), dyads negotiate a labour contract. This negotiation task offers the opportunity for each party to achieve what their individual role (labour or management representative) desires in their most valued issue and to compromise on their least valued issue in an additive scoring model (see Raiffa, 1982). SIM scores were collected before the negotiations. The VFT technique of identifying objectives was provided to the experimental group as a methodological basis for negotiation preparation. The negotiations were then recorded and evaluated for integrative negotiation behaviours. After the negotiation, participants reported their results and responded to the SVI questionnaire.

This study offers three original findings: First, individual character traits measured by the SIM by Ade et al. (2020) do not exhibit a significant effect on integrative negotiation outcomes or integrative negotiation behaviour (cf. section 4.2 Scale

for Integrative Mindset as a Predictor of Negotiation Performance). Second, applying the VFT technique of identifying objectives is likely to positively influence the SVI of the counterpart (cf. section 4.3 A Value-Focused Thinking Technique of Identifying Objectives as a Predictor of Negotiation Performance). Third, the integrative negotiation behaviours defined by Weingart (1996) were analysed, and the findings of Weingart (1996) are extended regarding the three integrative negotiation outcomes: PIEO, PJEO, and SVI (cf. section 4.4 Integrative Negotiation Behaviours as a Predictor of Negotiation Performance). Aiming for the integrative negotiation outcome of the Pareto efficiency of the individual economic outcome, the integrative behaviour of making multi-issue offers, suggesting packaging and suggesting delayed reciprocity provide significant effects for improving this aim. Aiming for the integrative negotiation outcome of the Pareto efficiency of the joint economic outcome, the integrative negotiation behaviour of making multi-issue offers, asking questions about priorities and suggesting delayed reciprocity provide significant effects for improving this aim. Aiming for the integrative negotiation outcome of subjective value inventory, none of the integrative negotiation behaviours significantly improve this aim. Finally, one's own SVI (except for the subscale of instrumental outcome) reflects the SVI of the counterpart (cf. section 4.6 Additional Analysis: One's SVI as a Predictor of the SVI of the Counterpart).

Prescriptively, this study contains four recommendations for practitioners. First, the use of SIM scores does not contribute to identifying appropriate negotiators when aiming for the negotiation outcomes of the Pareto efficiency of the individual economic outcome, the Pareto efficiency of the joint economic outcome, and the subjective value inventory of the counterparts. Second, to improve the integrative

negotiation outcome of the Pareto efficiency of the individual economic outcome, practitioners should employ the integrative behaviour of making multi-issue offers, suggesting packaging, and suggesting delayed reciprocity. Third, to improve the Pareto efficiency of the joint economic outcome, practitioners should employ the integrative negotiation behaviours of making multi-issue offers, asking questions about priorities, and suggesting delayed reciprocity. Finally, to improve the integrative negotiation outcome of subjective value inventory, practitioners should employ the VFT technique of identifying objectives.

The following section presents the study's limitations.

5.5 Study Limitations

This study is characterised by three general, one SIM-specific, and three VFT-specific methodological limitations, presented in the following paragraphs.

As this study's purpose was to test and compare two theories in the business negotiation context and investigate which theory best predicts negotiation performance, the methodology of a laboratory experiment was selected. This study required the disclosure of negotiation results (individual economic outcome, joint economic outcome, and the SVI) to compare the theories and precisely measure which best predicts negotiation performance. Furthermore, the negotiations needed video recording to measure the negotiators' integrative negotiation behaviours as dependent and independent variables. The control over the subject of negotiation and possible negotiation outcomes and the comparability of negotiation outcomes between experimental and control groups

led to the methodological choice of a laboratory experiment. However, even though laboratory experiments allow superior control over the experimental set-up and precision of measurements, every methodology has limitations, and laboratory experiments are, relative to field studies, 'low in contextual generalization' (Sharma et al., 2018, p. 159).

The second general methodological limitation is time pressure during this laboratory experiment. The individual negotiation preparation and duration between the parties was limited to 15 minutes each. It could be argued that this time pressure was unfavourable to the outcomes of the negotiations, which limits the validity of the results. According to a study by De Dreu (2003), it could be argued that negotiators with high time pressure reach less integrative agreements because they revise their ideas of fixed assumptions less often during the negotiation (De Dreu, 2003, p. 280). Moreover, Stuhlmacher et al. (2000) found in an empirical study that participants who pressed for time made fewer offers on average. However, in a meta-analysis, Stuhlmacher and Champagne (1998) found that time pressure increased the probability of concessions and cooperative behaviour, and Saorín-Iborra (2007) found that time pressure is not always related to competitive negotiating behaviour. A concern for the post-negotiation atmosphere (a basis for value creation), experience, and preparation are all moderating factors (Saorín-Iborra, 2007, p. 285). Additionally, and this is probably the most crucial argument for excluding efficiency as a quality criterion of negotiation performance, economic negotiations often come with deadlines. From an economic perspective, negotiations are rarely conducted with the aim of negotiation but are the basis for further economic activities. Therefore, the time pressure on participants within this study may have influenced the

validity of the results on integrative negotiation behaviour as a dependent variable.

The third general limitation concerns the sub-process of intra-organisational negotiation. Especially in labour negotiations, several internal parties 'may have different ideas about the priorities assigned to various objectives being pursued, or they may disagree on what should be minimally acceptable for the total contract' (Walton and McKersie, 1991, p. 281). This opinion was echoed by Bazerman et al. (1999), who stated that 'tasks in real-world negotiations are far more difficult and complex. There are often more parties to understand, and the preferences of the parties will be more complex' (p. 1281). According to Walton and McKersie (1991), internal conflict can be found in (1) the sets of expectations by different group members (p. 283), (2) the heterogeneity of the group (p. 291), (3) the influence of disutility for different members of one party (p. 293), (4) perceptual factors (p. 294), (5) the complexity of negotiations (p. 295), and (6) the novelty of a situation, as problems in labour negotiations tend to change (p. 296) rapidly. Within this experimental study, the sub-process of intra-organisational negotiation was predefined as the total minimum score to be achieved and the individual weighting of the issues. Possible internal conflicts, as described by Walton and McKersie (1991), were not considered. This limitation must be considered when generalising the results to real-world labour negotiations.

Regarding the findings on the SIM as a predictor of negotiation effectiveness, it is possible that the pre-negotiation SIM data collection process may have influenced participants' behaviour. A 'two-group, before-after design' laboratory experiment was employed for this study. This type of laboratory experiment design collects pre-test and post-test data on individuals assigned to a control or

experimental group. Participants were randomly assigned to either the experimental or control group and pre-tested on their SIM scores as an independent variable. The post-test assessed the five integrative negotiation behaviours (Weingart, 1996) and the negotiation performance indicators of the PIEO, PJEO, and SVI as dependent variables. As participants rated the 15 items of the SIM prior to the negotiation, the participants' mindset and behaviour during the negotiation could have been influenced. A counterargument for this influence is the statement by Ade et al. (2018) that some negotiators already exhibit an integrative mindset. This argument implies that the integrative mindset is a predefined variable and, therefore, would not be influenced by the questionnaire. Nevertheless, although the measurement of SIM scores is necessary for generating data, the potential influence of questionnaire participation must be considered a limitation of this study.

Regarding the findings on the VFT technique of identifying objectives as a predictor of negotiation effectiveness, three methodological limitations should be considered. First, only one VFT technique, the VFT technique of identifying objectives, was applied. The full VFT methodology includes various concepts and procedures for identifying and structuring objectives and systematically developing better alternatives that align with the objectives. VFT consists of three sequential steps: First, possible objectives are listed. Second, the objectives are structured by examining the fundamental objectives and why these objectives are essential. Third, based on the objectives, potential decision-making options are developed (Keeney, 1994). As only the VFT technique of identifying objectives was applied to this study, the results cannot be extrapolated to the full VFT

methodology. Therefore, the full VFT methodologies may have additional implications for negotiation processes and outcomes.

The second methodological limitation related to the findings on the VFT technique of identifying objectives as a predictor of negotiation effectiveness applies to the mixture of experimental and control groups. The present study cannot make any statement about the effect of the VFT technique of identifying objectives on negotiation effectiveness when only one party of a dyad is subjected to this treatment. In this study, only the experimental group engaged in the VFT technique of identifying objectives as a negotiation preparation methodology, and the dyads were composed of either two participants from the experimental groups or two from the control group. There were no mixed dyads.

The third methodological limitation related to the findings on the VFT technique of identifying objectives applies to expanding the scope of issues. The issues to be negotiated and the issue cards for the labour and management representatives were predetermined. Therefore, this study cannot make any statement on what influence the VFT technique of identifying objectives has on a possible expansion of the issues and, thereby, on negotiation processes and outcomes.

Based on these methodological limitations, the subsequent section suggests future research opportunities.

5.6 Future Research Directions

This section offers recommendations for future research projects. First, opportunities are identified to expand the scale for an integrative mindset. Second, five recommendations for the combination of methodologies and indicators of negotiation performance are presented. The sixth recommendation applies to all negotiation experiments.

5.6.1 Redefining the Scale for Integrative Mindset

Correlations between personality traits and negotiation behaviour have long been doubted. Over the past 45 years, negotiation research has evolved. Rubin and Brown (1975) argued that ‘there is no systematic relationship between individual differences parameters and bargaining behaviour’ (p. 195). Bazerman et al. (2000) and Thompson (1990) also claimed that negotiation outcomes could not be predicted by individual differences, noting that ‘simple individual differences offer limited potential for predicting negotiation outcomes’ (Bazerman et al., 2000, p. 281) and that ‘personality and individual differences appear to play a minimal role in determining bargaining behaviour’ (Thompson, 1990, p. 515). In contrast, Barry and Friedman (1998) mentioned that ‘despite inconsistent findings, there is reason to assume that individual differences are important in understanding how individuals manage conflicts’ (p. 346). Barry and Friedman (1998) found that extraversion and agreeableness have ‘an impact on distributive bargaining but not on integrative bargaining, and [cognitive ability and conscientiousness have] an impact on integrative bargaining but not on distributive bargaining’ (p. 356).

Regarding these research findings, the present research does not represent a contradiction. Barry and Friedman (1998) found that 'cognitive ability played no role in distributive bargaining but was markedly related to the attainment of joint outcomes in a situation with integrative potential'⁹ (p. 345). According to Barry and Friedman (1998), cognitive skills are consequently considered a predictor of integrative negotiation outcomes. However, cognitive skills are not assessed in the SIM. Furthermore, no relevant differences were measured in the effects of the SIM on the PIEO and the PJEO, which may indicate that the SIM does not incorporate Barry and Friedman's (1998) findings and, thus, represents an incomplete reflection of the character traits necessary for integrative negotiation. A meta-analytic review related to personality traits by De Dreu, Weingart, and Kwon (2000) found that individual character traits can influence or prevent an integrative negotiation approach. The results from the meta-analysis of 28 studies indicate that resistance to yielding (low vs high) and preconditions in social motives (egoistic vs prosocial) influence or prevent an integrative negotiation approach (De Dreu, Weingart and Kwon, 2000, p. 889). It can be argued that social motives have been integrated into the collaboration sub-dimension of the SIM. However, the authors stated that 'results showed that negotiators were less contentious, engaged in more problem solving, and achieved higher joint outcomes when they had a prosocial rather than egoistic motive, but only when resistance to yielding was high (or unknown) rather than low' (p. 889). The second characteristic, high resistance to yielding, is not reflected in the SIM questionnaire. This gap may indicate that the SIM does not fully incorporate the findings of De Dreu, Weingart, and Kwon (2000) and, thus, represents an

⁹ Cognitive ability measured by GMAT scores (Barry & Friedman, 1998, p. 349)

incomplete reflection of the character traits necessary for integrative negotiation. An additional study related to personal differences was conducted by Sharma et al. (2013). This meta-analysis also supported the hypothesis that individual differences 'revealed a significant role' (p. 293) in individual and joint economic outcomes in negotiations. Sharma (2015) found that 'nearly fifteen per cent of the variance in the objective outcomes of distributive bargaining encounters can be attributed to negotiator's individual differences such as personality traits' (p. 53). Sharma et al. (2013) also found that the Big 5 personality traits, except for conscientiousness, were predictors of at least one of the three negotiation outcomes studied: Individual economic value (PIEO in this study), joint economic value (PJEO in this study), and psychological, subjective value (SVI in this study). However, the Big 5 personality traits that predicted at least one of the three negotiation outcomes were extraversion, agreeableness, emotional stability, and openness, which are not considered in the SIM. Furthermore, no relevant differences were measured in the effects of the SIM on the PIEO and PJEO, which may indicate that the SIM does not incorporate Sharma et al.'s (2013) findings and, thus, represents an incomplete reflection of the character traits necessary for integrative negotiation.

In summary, the SIM by Ade et al. (2020) is unsuitable for predicting negotiation outcomes based on its assumptions and incomplete scope, as it neglects the personal characteristics of cognitive ability (see Barry and Friedman, 1998), resistance to yielding (see De Dreu, Weingart and Kwon, 2000), and the Big 5 personality traits (see Sharma et al., 2013), all of which have shown an impact on negotiation effectiveness. As such, the SIM needs to be expanded to integrate the characteristics mentioned earlier.

5.6.2 Combining Methodologies and Indicators of Negotiation Performance

This thesis derived a framework for defining business negotiation performance, which consists of five integrative negotiation behaviours (see Weingart et al., 1996) and integrative negotiation outcome indicators. These integrative negotiation outcome indicators consist of the PIEO and PJEO, each measured by an additive scoring model, and the SVI of the counterpart, measured by the arithmetic mean of the 16-item questionnaire by Curhan et al. (2006, p. 501) on a seven-point Likert scale. The SVI consists of the subscales of (1) feelings about the instrumental outcome, (2) feelings about the self, (3) feelings about the process, and (4) feelings about the relationship. The mean of the subscales (3) and (4) are defined as (5) rapport.

This study utilised the VFT technique of identifying objectives (Keeney, 1996) and integrative negotiation behaviours (Weingart, 1996) as predictors of negotiation performance. The combination of the VFT technique of identifying objectives and the five integrative negotiation behaviours appears to affect different indicators of negotiation performance. Aiming for the integrative negotiation outcome of the Pareto efficiency of individual economic outcome, the integrative behaviours of making multi-issue offers, suggesting packaging, and suggesting delayed reciprocity provide significant effects for improving this aim. Aiming for the integrative negotiation outcome of the Pareto efficiency of the joint economic outcome, the integrative negotiation behaviours of making multi-issue offers, asking questions about priorities, and suggesting delayed reciprocity provide significant effects for improving this aim. Aiming for the integrative negotiation outcome of the SVI of the counterpart, the VFT technique of identifying objectives

provides significant effects for improving this aim. These findings lead to five recommendations for further research concerning the combination of methodologies and indicators of negotiation effectiveness. A sixth recommendation applies to all negotiation experiments.

First, experimental studies should compare various preparatory methodologies to evaluate whether the VFT technique of identifying objectives constitutes a scientific advance. Second, experimental studies should test the full VFT methodology as a predictor of integrative negotiation outcomes and integrative negotiation behaviour. This research project should also investigate how value-driven conflicts can be transformed into utility-driven conflicts (see Schuster, 2020) and how negotiation performance develops when applying the full VFT methodology. Third, the full VFT methodology or the VFT technique of identifying objectives should be tested in mixed dyads. One party would receive the VFT treatment, and the other party would not. It would be interesting to investigate the extent to which the impact on the SVI (counterpart) and SVI (self) would be altered under this condition. Fourth, this study reveals the effects of the SVIs on both parties and, thus, the perceptions of both negotiating parties. This finding indicates that a negotiator's feelings (positive or negative) correspond to the direction of the other party's feelings. In recurring negotiations, it may, therefore, be advantageous to complete the SVI for oneself after each negotiation to estimate the feelings of one's counterpart as at the end of their deal-making process, negotiators step back to evaluate their outcomes [and] in all but the most simple buyer-seller transactions, they have limited information for doing so' (Olekalns and Smith, 2018, p. 180). This procedure could lead to a continuous

improvement process, which has already been indicated by Curhan et al. (2010), who wrote that the SVI 'in the absence of direct information and a detailed analysis of one's economic outcome, SV can be the best available intuition about one's performance [and] SVI can influence learning and future behaviours' (p. 692). Experimental studies could test this hypothesis in negotiations with several negotiation rounds – a continuous improvement process regarding the subjective feelings of the counterpart takes place by surveying one's own SVI data after each negotiation round. Findings from Becker and Curhan (2018) should be included, suggesting that 'it is also important to consider how one negotiation can affect subsequent transactions' (p. 84).

Fifth, according to Pruitt (2006), there is a valid concept of starting with a low-cost laboratory study and then testing the findings in a real-world setting. Thus, the findings should be applied in the field after the recommendations have been implemented and an experimental laboratory basis has been achieved. Finally, this study shows that different phases and methodologies activate the negotiation outcome indicators. Therefore, it is recommended that a differentiated set of negotiation outcome indicators is employed to measure the effect of methodologies. It is recommended to employ the PIEO, PJEO, and SVI.

After presenting the recommendations for future research projects, the subsequent section presents the researcher's reflections on this study.

5.7 Reflections

This study adopted the ontological, epistemological, and methodological position of critical rationalism as described by Popper 'that one cannot verify a theory, one can only disprove it' (Popper in Derksen, 2019, p. 450). As all theories under consideration have been published and peer-reviewed, Popper's recommendations could be implemented by comparing the two theories and empirically applying their conclusions. This approach provides an original contribution to scientific knowledge in the tradition of critical rationalism. Critical rationalism was the appropriate philosophical positioning for the researcher for this work. The academic discipline of negotiation and its practical application in business regularly expose the researcher to negotiation theories. Given the multitude of theories to improve negotiation performance, the researcher considers the falsification of existing but not empirically tested theories necessary. Both academics and practitioners will benefit from a thinned set of negotiation theories. This is not to say that no new negotiation theories should be developed or existing theories should be further developed. The researcher suggests that falsification and empirical competition between existing negotiation theories should be equally important. In addition, the researcher recognises the necessary combination of multiple, sequential scientific methods to falsify a theory following its development. These methods are discussed in the following paragraphs.

As a first reflection, the researcher underestimated the range of flexibility in the design of this comparative study. Each research methodology in the business negotiation context exhibits strengths and weaknesses. Field studies, for

example, provide 'contextual realism at the sacrifice of control and precision of measurement', whereas 'laboratory experiments contain superior precision of measurement and control of behaviour variables, but they are low in contextual generalization' (Sharma et al., 2018, p. 159). In future studies, the researcher would include this flexibility in his initial considerations. An extensive review of the existing literature was required to identify appropriate benchmarks to make the theories comparable in the context of labour negotiation. For example, there was a lack of a generally valid definition of negotiation performance and a wide range of possible methodological study designs. In particular, choosing a laboratory study was difficult for the researcher. Although the artificial environment allows for a high degree of control over the process and precise measurement of the results, the researcher realised early on that the generalisability of laboratory studies in negotiation research is limited. One lesson learned for the researcher is that choosing a laboratory study can only signal the launch of a research series for developing theories. In future research projects, the researcher would combine a laboratory experiment with a sequential field experiment in alignment with Pruitt (2006), who argued that there is a valid concept of starting with a low-cost laboratory study and then testing the findings in a real-world setting.

A further reflection of the researcher concerns the challenges of the COVID-19 pandemic for research. On the one hand, researchers have been cut off from physical meetings and the possibility of conducting laboratory experiments in the physical presence of participants. Recruiting participants for laboratory experiments is challenging without a personal invitation, such as in classrooms. On the other hand, the researcher realised that using online applications (e.g.

Microsoft Teams) is a suitable alternative for gathering information in the laboratory. Laboratory experiments in negotiation research can even become more productive, as no physical limitations exist (e.g., laboratory classroom size). Furthermore, as business meetings are often conducted remotely using online applications, online negotiations have become the new normal in negotiation, and negotiation research should reflect this change. Therefore, on reflection, the researcher found it beneficial for research and practice to conduct this study and gather the data via an online experiment. Moreover, the researcher found online applications appropriate for the function of recording negotiations. Fifty-two negotiations were recorded, many of them simultaneously. With online applications, no additional hardware beyond a laptop and a stable internet connection were required to conduct this laboratory experiment. In future research projects, the researcher would again choose to conduct an online laboratory experiment. However, there is potential for optimisation in the group sizes (2–20 participants / 1–10 dyads). For efficiency and effectiveness in caring for participants, group sizes of 8–12 participants (4–6 dyads) are considered efficient and effective.

Reflecting on the outcomes of this research, the researcher hesitated to include gender as a control variable. While gender has been widely discussed in negotiation research, discrimination controversies made the researcher uncomfortable including gender as a control variable. As data of this study indicate that male negotiators are likely to achieve higher PIEO and PJEO, this outcome could lead to further discrimination when males are preferred over females as negotiation representatives of their organisations. Although some researchers believe it is unethical to make practical use of this knowledge

because the individuals involved cannot do anything about it (Bazerman and Carroll, 1987), the researcher believes that this knowledge can still be of value. Affected individuals could utilise this insight regarding their strengths or weaknesses to frame situations according to their strengths or to ask a colleague or representative to fulfil negotiation tasks to exploit the integrative potential (Sharma, Bottom and Elfenbein, 2013, p. 321). Furthermore, the researcher thinks that political correctness should not be part of science and that inequalities (e.g. gender, age, professional experience, cultural background, religion, sexual orientation) must be analysed to find solutions to compensate for inequalities in negotiations. If research excludes potential discriminating attributes, this would be a step backwards in the freedom of research and a missed opportunity to understand human beings and how to improve.

In summary, this research project contributes to theory and practice and the researcher himself. The journey to test and compare two theories in the context of labour negotiations within the tradition of critical rationalism made the researcher aware of the flexibility negotiation research offers scholars and the validity, generalisability, and reliability of the knowledge derived. Conducting a laboratory experiment online has proven to be a beneficial methodology for efficiency and access to participants and a scenario that reflects the current state of negotiation practice. Furthermore, the researcher's discomfort with political and social discussions on discrimination presented a moral dilemma. Nevertheless, the researcher feels that science must drive to 'search for truth and by the hope of attaining it' (Popper, 1989, p. 39).

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Appendices

Appendix 1: Most relevant publications for conducting the literature review on the economic perspectives of business negotiation research

| Authors | Title | Type of source | Summary points |
|-----------------------------------|---------------------------------------------------------------------------------------------------------|---------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Bazerman and Neale (1992) | Negotiating rationally | Theoretical article | - Recommendations to eliminate many negotiation errors |
| Bazerman et al. (1999) | The Human Mind as a Barrier to Wiser Environmental Agreements | Theoretical article | - Short history of the psychological study of negotiation - Discussion of five emerging research areas |
| Bazerman et al. (2000) | Negotiation | Theoretical article | - Discussion of barriers that cause the fixed-pie bias - Discussion the potential role of learning and experience in improving negotiator performance |
| De Dreu, Weingart and Kwon (2000) | Influence of Social Motives on Integrative Negotiation: A Meta-Analytic Review and Test of Two Theories | Meta-analysis | - Meta-analysis of 28 studies supports Theory of Cooperation and Competition and Dual Concern Theory - Exploration of moderating effects of study characteristics |
| Lax Sebenius (1986) | & The manager as negotiator: Bargaining for cooperation and competitive gain. | Book | - Consideration of, but not limited to, cooperation and competition - Holistic approach to negotiation based on strategies and tactics |
| Lax Sebenius (2002) | and Dealcrafting: The Substance of Three-Dimensional Negotiations | Theoretical article | - Theoretical discussion of a 3-D perspectives for negotiations including interpersonal dynamics and strategies, dealcrafting, and entrepreneurial moves "away from the table" |

| | | | |
|-------------------------------------|------------------------------------------------------------------|---------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| | | | <ul style="list-style-type: none"> - The authors use case examples to demonstrate how dealcrafting works in practice |
| Pruitt (1981) | Negotiation behavior | Book | <ul style="list-style-type: none"> - Synthesis about negotiation in general and summary of various laboratory experiments - Focus on motives, perceptions, and processes |
| Raiffa (1982) | The Art and Science of Negotiation | Book | <ul style="list-style-type: none"> - Introduction to the complexities of negotiation - Synthesis about negotiation in general and summary of various laboratory experiments - Focus on game theory and decision making under uncertainty |
| Sharma, Bottom and Elfenbein (2013) | The Role of Affect, Personality, and Intelligence in Negotiation | Meta-analysis | <ul style="list-style-type: none"> - Meta-analysis on Big 5 personality traits - Individual differences play a relevant role in predicting negotiation outcomes |
| Von Neumann and Morgenstern (1944) | Theory of Games and Economic Behavior | Book | <ul style="list-style-type: none"> - Negotiation and game theory |
| Walton and McKersie (1991) | A Behavioral Theory of Labor Negotiations | Book | <ul style="list-style-type: none"> - Collective negotiation - Conflict resolution - Disciplines of economics, psychology, and sociology |

Table 36: Most relevant publications for conducting the literature review on the economic perspectives of business negotiation research (devised by the author)

Appendix 2: Most relevant publications for conducting the literature review on the psychological perspectives of business negotiation research

| Authors | Title | Type of source | Summary points |
|---------------------------|---------------------------------------------------------------------------------------|---------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Ade et al. (2018) | Mindset-Oriented Negotiation Training (MONT): Teaching More Than Skills and Knowledge | Theoretical article | <ul style="list-style-type: none"> - Psychological orientations - Introduction of a negotiation mindset |
| Bazerman and Neale (1992) | Negotiating rationally | Theoretical article | <ul style="list-style-type: none"> - Recommendations to eliminate many negotiation errors |
| Bazerman et al. (1999) | The Human Mind as a Barrier to Wiser Environmental Agreements | Theoretical article | <ul style="list-style-type: none"> - Short history of the psychological study of negotiation - Discussion of five emerging research areas |
| Bazerman et al. (2000) | Negotiation | Theoretical article | <ul style="list-style-type: none"> - Discussion of barriers that cause the fixed-pie bias - Discussion the potential role of learning and experience in improving negotiator performance |
| Lax Sebenius (1986) | & The manager as negotiator: Bargaining for cooperation and competitive gain. | Book | <ul style="list-style-type: none"> - Consideration of, but not limited to, cooperation and competition - Holistic approach to negotiation based on strategies and tactics |
| Lax Sebenius (2002) | and Dealcrafting: The Substance of Three-Dimensional Negotiations | Theoretical article | <ul style="list-style-type: none"> - Theoretical discussion of a 3-D perspective for negotiations including interpersonal dynamics and strategies, dealcrafting, and entrepreneurial moves "away from the table" The authors use case examples to demonstrate |

| | | | |
|-------------------------------------|--------------------------------------------------------------------------------------------|---------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| | | | how dealcrafting works in practice |
| Pruitt (1981) | Negotiation behavior | Book | <ul style="list-style-type: none"> - Synthesis about negotiation in general and summary of various laboratory experiments - Focus on motives, perceptions, and processes |
| Roth and Malouf (1979) | Game-Theoretic Models and the Role of Information in Bargaining | Theoretical article | <ul style="list-style-type: none"> - Behavioural implications on negotiation - Introduction of a new game-theoretic model, based on assumptions about limited information |
| Sharma, Bottom and Elfenbein (2013) | The Role of Affect, Personality, and Intelligence in Negotiation | Meta-analysis | <ul style="list-style-type: none"> - Meta-analysis on Big 5 personality traits - Individual differences play a relevant role in predicting negotiation outcomes |
| Weingart et al. (1996) | Knowledge Matters: The Effect of Tactical Descriptions on Negotiation Behavior and Outcome | Experimental study | <ul style="list-style-type: none"> - Dyads with integrative behaviours achieved higher joint outcomes - Distributive behaviours resulted in lower joint outcomes |

Table 37: Most relevant publications for conducting the literature review on the psychological perspectives of business negotiation research (devised by the author)

Appendix 3: Most relevant publications for conducting the literature review on the sociological perspectives of business negotiation research

| Authors | Title | Type of source | Summary points |
|-------------------------------------|-----------------------------------------------------------------------------------------------------------|---------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Curhan et al. (2006) | What Do People Value When They Negotiate? Mapping the Domain of Subjective Value Inventory in Negotiation | Experimental study | <ul style="list-style-type: none"> - Four underlying subconstructs for subjective value - Introduction of subjective value inventory |
| Coleman, Deutsch, and Marcus (2014) | The Handbook of Conflict Resolution Theory and Practice | Book | <ul style="list-style-type: none"> - Articles on theory and practice of negotiation - Power, cooperation, emotion, and trust in negotiation |
| De Dreu, Weingart and Kwon (2000) | Influence of Social Motives on Integrative Negotiation: A Meta-Analytic Review and Test of Two Theories | Meta-analysis | <ul style="list-style-type: none"> - Meta-analysis of 28 studies supports Theory of Cooperation and Competition and Dual Concern Theory - Exploration of moderating effects of study characteristics |
| Lax and Sebenius (2002) | Dealcrafting: The Substance of Three-Dimensional Negotiations | Theoretical article | <ul style="list-style-type: none"> - Theoretical discussion of a 3-D perspectives for negotiations including interpersonal dynamics and strategies, dealcrafting, and entrepreneurial moves "away from the table" - The authors use case examples to demonstrate how dealcrafting works in practice |
| Pruitt and Rubin (1986) | Development of integrative solutions in bilateral negotiation | Experimental study | <ul style="list-style-type: none"> - Negotiators applying information exchange approach in negotiations enhance joint profits |

| | | | | |
|------------------------------|-----------------------------------------------------------------------------------------------|---------------------|--|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| | | | | <ul style="list-style-type: none"> - Negotiators with high cognitive ability enhance joint profits |
| Rhoades and Carnevale (1999) | The Behavioral Context of Strategic Choice in Negotiation: A Test of the Dual Concern Theory | Experimental study | | <ul style="list-style-type: none"> - Study supports Dual Concern Theory, when opponent's behaviour was identical to the negotiator's own behaviour |
| Sorenson et al. (1999) | A test of the motivations underlying choice of conflict strategies in the Dual-Concern Model. | Experimental study | | <ul style="list-style-type: none"> - Test of Dual Concern Theory with the choice of conflict strategies - concern for self and concern for others are significantly associated with dominating and obligating strategies. - predicted interactions between concern for self and concern for others and avoidance, compromise and integration strategies are not consistent with the conceptualisations of the dual-concern models |
| Thompson (1990) | Negotiation behaviour and outcomes: Empirical evidence and theoretical issues | Theoretical article | | <ul style="list-style-type: none"> - individual differences, motivational, and cognitive approaches of negotiation - Social-psychological measurement as negotiation outcome |

Table 38: Most relevant publications for conducting the literature review on the sociological perspectives of business negotiation research (devised by the author)

Appendix 4: Most relevant publications for conducting the literature review on the theories aiming for integrative negotiations

| Authors | Title | Type of source | Summary points |
|-----------------------|---------------------------------------------------------------------------------------|---------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Ade et al. (2018) | Mindset-Oriented Negotiation Training (MONT): Teaching More Than Skills and Knowledge | Theoretical article | <ul style="list-style-type: none"> - Psychological orientations - Introduction of a negotiation mindset |
| Ade et al. (2020) | Toward a Better Understanding of Mindsets of Negotiators | Survey | <ul style="list-style-type: none"> - Introduction of the scale for integrative mindset including curiosity, creativity, and collaboration - Opportunities for further research applying the scale for integrative mindset |
| Keeney (1992) | Value-Focused Thinking: A Path to Creative Decisionmaking | Book | <ul style="list-style-type: none"> - Thinking about values - The framework of value-focused thinking - Identifying and structuring objectives |
| Keeney (1994) | Creativity in Decision Making with Value-Focused Thinking | Theoretical article | <ul style="list-style-type: none"> - Techniques for creating better alternatives - Introduction to the technique of identifying objectives |
| Keeney (1996) | Value-focused thinking: Identifying decision opportunities and creating alternatives | Case study | <ul style="list-style-type: none"> - Case study on the application of value-focused thinking - Applications of value-focused thinking |
| Parnell et al. (2013) | Invited Review – Survey of Value Focused Thinking: Applications, Research | Meta-analysis | <ul style="list-style-type: none"> - Summary of applications of value-focused thinking - Identification of future research opportunities |

| | | | |
|-------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| | Developments and Areas for Future Research | | |
| Peterson and Lucas (2001) | Expanding the Antecedent Component of the Traditional Business Negotiation Model: Pre-Negotiation Literature Review and Planning-Preparation Propositions | Theoretical article | <ul style="list-style-type: none"> - Definition and introduction of a pre-negotiation component to the traditional negotiation model - Propositions to the testing of the pre-negotiation phase |
| Popper (1972) | The Logic of Scientific Discovery | Book | <ul style="list-style-type: none"> - Logic of science - Theories - Falsifiability |
| Sharma, Bottom and Elfenbein (2013) | The Role of Affect, Personality, and Intelligence in Negotiation | Meta-analysis | <ul style="list-style-type: none"> - Meta-analysis on Big 5 personality traits - Individual differences play a relevant role in predicting negotiation outcomes |
| Weingart et al. (1996) | Knowledge Matters: The Effect of Tactical Descriptions on Negotiation Behavior and Outcome | Experimental study | <ul style="list-style-type: none"> - Dyads with integrative behaviours achieved higher joint outcomes - Distributive behaviours resulted in lower joint outcomes |

Table 39: Most relevant publications for conducting the literature review on the theories aiming for integrative negotiations (devised by the author)

Appendix 5: Most relevant publications for conducting the literature review on the labour negotiations as the context of this thesis

| Authors | Title | Type of source | Summary points |
|-------------------------|------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Balke (1973) | An Alternative Approach to Labor-Management Relations | Experimental study | - Self-understanding and understanding of one's counterpart in labour negotiations |
| Hieser (1970) | Wage Determination with Bilateral Monopoly in the Labour Market: A Theoretical Treatment | Theoretical article | - Theory of wages - Bilateral monopoly in the labour market |
| Lax and Sebenius (2002) | Dealcrafting: The Substance of Three-Dimensional Negotiations | Theoretical article | - Theoretical discussion of a 3-D perspective for negotiations including interpersonal dynamics and strategies, dealcrafting, and entrepreneurial moves "away from the table" - The authors use case examples to demonstrate how dealcrafting works in practice |
| Sebenius (2015) | Why Behavioral Theory of Labor Negotiations Remains a Triumph at Fifty but the Labels "Distributive" and "Integrative" Should Be Retired | A Theoretical article | - Theoretical article including criticism on Walton and McKersies 'A Behavioral Theory of Labor Negotiations' |
| Raiffa (1982) | The Art and Science of Negotiation | Book | - Introduction to the complexities of negotiation |

| | | |
|----------------------------|------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| | | <ul style="list-style-type: none"> - Synthesis about negotiation in general and summary of various laboratory experiments - Focus on game theory and decision making under uncertainty |
| Walton and McKersie (1991) | A Behavioral Book Theory of Labor Negotiations | <ul style="list-style-type: none"> - Collective negotiation - Conflict resolution - Disciplines of economics, psychology, and sociology |

Table 40: Most relevant publications for conducting the literature review on the labour negotiations as the context of this thesis (devised by the author)

Appendix 6: VFT applications

Table 1 – VFT applications

| Year | Authors | VFT approach application |
|------|---------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1992 | Keeney and McDaniels | Selection of strategic objectives for BC Hydro. |
| 1999 | McDaniels and Trousdale | Tourism Planning in Guimaras, Philippines. |
| 2001 | Keeney | To build a Value Model for Telecommunication Management Decisions. |
| 2001 | Keeney and McDaniels | To develop a set of goals for the US government's climate change policy decisions. |
| 2001 | Arvai, Gregory and McDaniels | The risks to the riparian area salmon habitat in a hydroelectric plant. |
| 2001 | Gregory, Arvai and McDaniels | Environmental risk management. |
| 2004 | Hassan | The comparative implications of building materials such as wood, masonry and concrete. |
| 2004 | Jurk,Chambal and Thal | To identify innovative ideas to improve the Air Force's ability to perform its core competency. |
| 2004 | Merrick and Garcia | To improve river basin quality in Richmond, Virginia. |
| 2004 | Kajanus, Kangasb and Kurttilac | Tourism management: fundamental objectives and means for the vitality of rural areas. |
| 2005 | Sheng, Nah and Siau | Strategic implications of mobile technology in a leading publishing company. |
| 2005 | Merrick et al. | To understand the safety decisions made by domestic tanker operators. |
| 2008 | Peharda and Hunjak | Selection of an automatic rifle for the Croatian Armed Forces. |
| 2010 | Barclay and Osei-Bryson | Selection of important criteria for the development of Information Systems. |
| 2010 | Keeney and Winterfeldt | To identify and structure the goals of terrorists. |
| 2010 | Sheng, Nah and Siau | To understand the values of education available through mobile technology and use these values as guidelines for implementing use in education. |
| 2011 | Alencar, Mota and Alencar | Disposal of plaster waste in construction sites. |
| 2011 | Keeney and Winterfeldt | To reduce the costs of terrorism by developing a comprehensive set of internal security objectives. |
| 2011 | Selart and Johansen | Comparison of the VFT and AFT methods (Ideas Focused on Alternatives) to generate ideas,together with 70 Human Resources employees. |
| 2012 | Keeney | World Trade Center (Evacuation Area) Federal Safety Report. |
| 2013 | Keeney | Different internal security risks and to evaluate potential customers for American Express cards. |
| 2013 | Lopes and Almeida | Selection of portfolio projects in the oil and gas exploration area. |
| 2013 | May, Dhillon and Caldeira | Planning and implementation of Enterprise Resource Planning – ERP. |
| 2013 | Morais et al. | To discuss the application of VFT in Brazil to three problems in different contexts: water management, information/information technology (IS/IT), strategic planning, and the elimination of plaster waste. |
| 2014 | Almeida, Morais and Almeida | Sale price in a Manipulation Pharmacy – South of Brazil. |
| 2014 | Keisler et al. | Community Development Corporations. |
| 2014 | Simon, Regnier and Whitney | The US Department of Defense (DoD) has identified its energy requirements as a key vulnerability, the article provides for the identification of goals and associated definitions to facilitate horizontaland vertical communications operations within the DoD. |
| 2014 | Vieira and Duarte | To propose alternatives that help the rural region of Pernambuco dairy to reach some level of economic, social and environmental sustainability. |
| 2015 | Poleto et al. | To identify and implement information security policies. |
| 2015 | Reichert, Langhans and Schuwirth | To support to the environmental decision, a didactic case study on the prioritization of the spatial rehabilitation of the rivers. |
| 2015 | Siebert and Keeney | Creation of quality alternatives, a study of five involving concrete decisions of substantial importance for the participants involved. |
| 2015 | Urtiga and Morais | Conflicts involving the use of water as a scarce resource. VFT used in the preliminary stagesof the negotiation to enable the creation of values among the negotiators. |
| 2016 | Bezerra Junior, Culha Filho and Cavalcante Junior | To structure the prioritization of which technical courses will be offered by a Technical and Vocational Education Institution of Rio Grande do Norte. |
| 2016 | Kunz, Siebert and Mütterlein | Method for strategic management based on the combination of the Balanced Scorecard with VFT, case study in Nordbayerischer Kurier, a German regional newspaper. |
| 2016 | Paiva and Daher | Cleaner production practices in a garment company in the rural region of Pernambuco. |
| 2017 | Alencar, Priori Jr and Alencar | Sustainability in the construction environment. |
| 2017 | Andrade et al. | Paraíba River Basin Committee, to mitigate problems of the water crisis. |
| 2017 | Coelho | To identify policies to promote the active aging of industrial workers. |
| 2018 | Bernardo, Gaspar and Antunes | To assess the energy efficiency of school buildings. |

Figure 30: VFT applications by Pacheco et al. (2019, p. 502)

Appendix 7: Negotiation Process Model

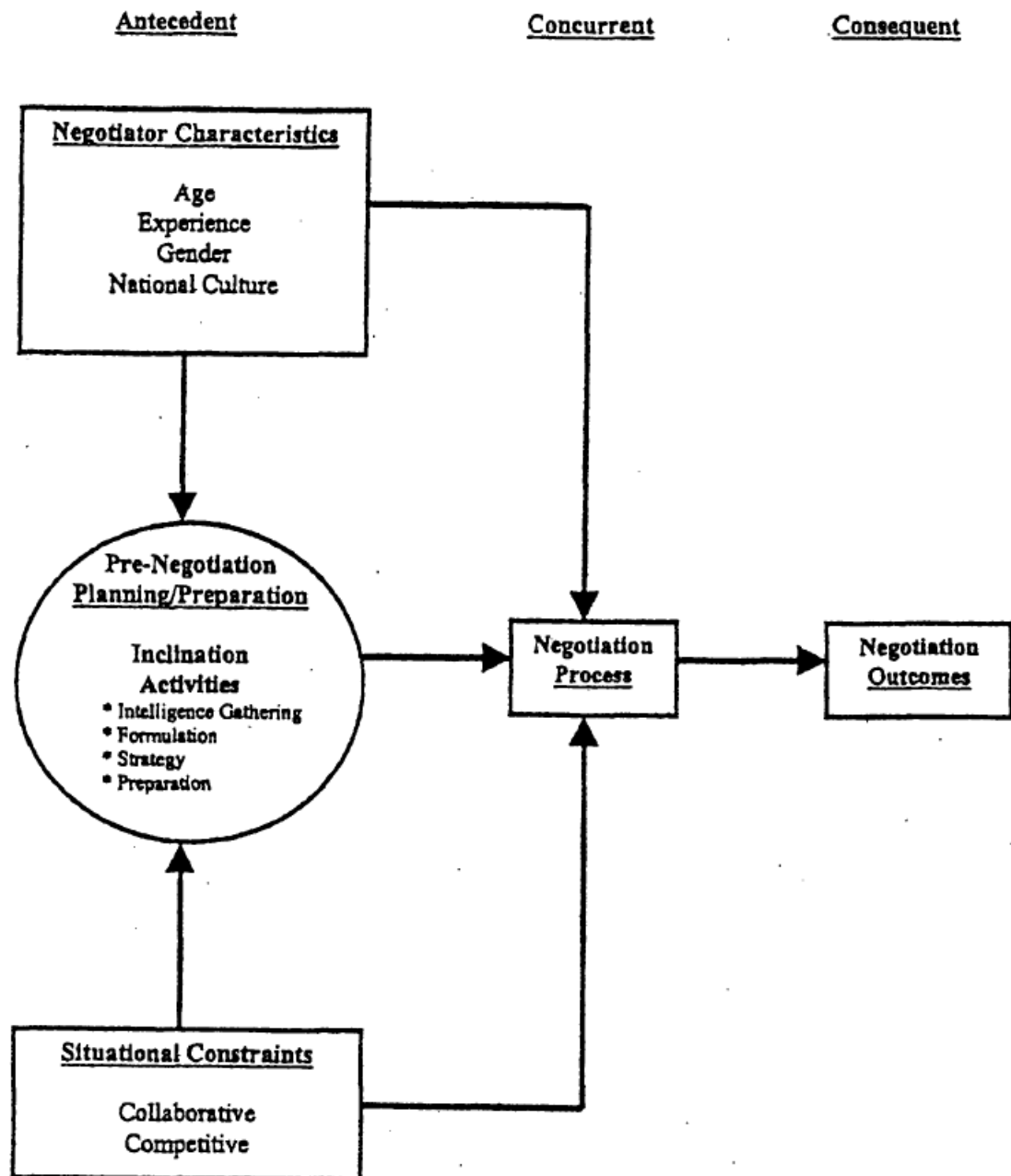


Figure 31: Negotiation Process Model by Peterson and Lucas (2001, p. 38)

Appendix 8: Written instructions for Labour representative

Every 4 years a collective agreement is negotiated in ABC Corporation between a representative of management and a labour representative. As the 62-year-old labour representative for ABC Corporation you represent all employees. You are under pressure because you want to become re-elected by the employees which depends on the satisfaction level of the workforce. On the other hand, you know that collective bargaining is the basis for the continuation of favourable long-term relations between management and labour. Four issues are to be negotiated:

- Salary (in EUR), whereby you can earn a maximum of 400 points
- Vacation (in weeks), whereby you can earn a maximum of 120 points
- Annual raise of salary (in percent), whereby you can earn a maximum of 240 points
- Insurance rate (in percent), whereby you can earn a maximum of 60 points

Your labour union requires you to earn a total sum of min. 400 points.

It is becoming apparent that difficult and possibly long negotiations will be necessary this year. Accordingly, the labour's strike funds are well-filled and, if necessary, four strikes can be carried out. Only the union representative can initiate a strike.

You now meet the management representative, the 31-year-old grandchild of the founder of ABC Corporation, to negotiate the details of the deal. You have heard that your counterpart is under pressure because she/he wants to close the deal

to show his family how effectively he/she runs the company. The table below shows the scope for negotiation and the issues to be negotiated.

Labour Issue Card

| Salary | Vacation | Annual raise of salary | Insurance | Union strike(s) |
|--------------|----------------|------------------------|-----------|-----------------|
| 70,000 (400) | 3 weeks (120) | 15% (240) | 100% (60) | 0 (00) |
| 65,000 (300) | 2,5 weeks (90) | 12% (180) | 80% (45) | 1 (-25) |
| 60,000 (200) | 2 weeks (60) | 9% (120) | 60% (30) | 2 (-50) |
| 55,000 (100) | 1,5 weeks (30) | 6% (60) | 40% (15) | 3 (-75) |
| 50,000 (00) | 1 week (00) | 3% (00) | 20% (00) | 4 (-100) |

Table 41: Issue card for labour adapted from De Dreu and Carnevale (2006, p. 217)

The issues illustrated in the labour issue card have a scorable point system, which is given in brackets after the figures. You are not allowed to share the contents of the issue card with your negotiating partner.

You have the possibility to use four strikes. Keep in mind, however that you will receive a point deduction in the negotiation result for each strike used. You can reach an outcome of max. of 820 points. Good luck.

You have 15 minutes to prepare for the negotiations. The negotiation itself lasts 15 minutes. Please use the questions 17 - 26 to prepare for the negotiation¹⁰. Questions 27 – 47 (for experimental group) and questions 17 – 27 (for control group) are to be answered after the negotiation.

¹⁰ This sentence is shown for experimental group only

Appendix 9: Written instructions for Management representative

Every 4 years a collective agreement is negotiated in ABC Corporation between a representative of management and a labour representative. As the 31-year-old grandchild of the founder of ABC Corporation you represent the management. You are under pressure because you want to close the deal to show your family how effectively you run the company. Your grandfather told you that collective bargaining is the basis for the continuation of favourable long-term relations between management and labour. Four issues are to be negotiated:

- Salary (in EUR), whereby you can earn a maximum of 60 points
- Vacation (in weeks), whereby you can earn a maximum of 120 points
- Annual raise of salary (in percent), whereby you can earn a maximum of 240 points
- Insurance rate (in percent), whereby you can earn a maximum of 400 points

The owner of ABC Cooperation requires you to earn a total sum of min. 400 points.

It is becoming apparent that difficult and possibly long negotiations will be necessary this year. Accordingly, the labour's strike funds are well-filled and, if necessary, four strikes can be carried out. Only the union representative can initiate a strike.

You now meet the labour representative, a 62-year-old tough negotiator, to negotiate the details of the deal. However, you have heard that your counterpart

is under pressure because she/he wants to become re-elected by the employees.

The table below shows the scope for negotiation and the issues to be negotiated.

| Management Issue Card | | | | |
|-----------------------|----------------|------------------------|-----------|-----------------|
| Salary | Vacation | Annual raise of salary | Insurance | Union strike(s) |
| 70,000 (00) | 3 weeks (0) | 15% (00) | 100% (00) | 4 (-200) |
| 65,000 (15) | 2,5 weeks (30) | 12% (60) | 80% (100) | 3 (-150) |
| 60,000 (30) | 2 weeks (60) | 9% (120) | 60% (200) | 2 (-100) |
| 55,000 (45) | 1,5 weeks (90) | 6% (180) | 40% (300) | 1 (-50) |
| 50,000 (60) | 1 week (120) | 3% (240) | 20% (400) | 0 (00) |

Table 42: Issue card for management adapted from De Dreu and Carnevale (2006, p. 217)

The issues illustrated in the management issue card have a scorable point system, which is given in brackets after the figures. You are not allowed to share the contents of the issue card with your negotiating partner.

The labour representative has the option of using four strikes. Keep in mind that you will receive a point deduction in the negotiation result for each strike used. You can reach an outcome of max. of 820 points. Good luck.

You have 15 minutes to prepare for the negotiations. The negotiation itself lasts 15 minutes. Please use the questions 17 - 26 to prepare for the negotiation¹¹. Questions 27 – 47 (for experimental group) and questions 17 – 27 (for control group) are to be answered after the negotiation.

¹¹ This sentence is shown for experimental group only

Appendix 10: Scale for Integrative Mindset by Ade et al. (2020, p. 743)

Collaboration

- 1 I feel better about a deal that is beneficial to both parties than about one that is beneficial only to me.
- 2 I am a collaborative negotiator.
- 3 I strive for a joint decision that makes both parties happy.
- 4 I collaborate rather than compete.
- 5 I work toward a consensual win-win agreement even if the rewards for doing so are unclear.

Curiosity

- 6 I am interested in my counterparts' negotiation goals.
- 7 When my counterparts see things differently than I do, I want to understand why this is the case.
- 8 I really like listening to my counterparts.
- 9 I want to understand my counterparts' motivations.
- 10 When negotiating, I am curious about what my counterparts think.

Creativity

- 11 In negotiations, I enjoy developing new ideas.
- 12 When negotiating, I play with ideas and develop several possible solutions before selecting one.
- 13 When negotiating, I come up with many ideas how solutions could look like.

- 14 I am motivated to search for creative solutions even if doing so requires time and energy.
- 15 Proposing creative solutions make me feel alive in negotiations.

Appendix 11: Adaptions to the VFT-technique of identifying objectives

| Dimension | Questions Original | Questions used for this study | Adaptions |
|---------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------|
| Develop a wish list | What do you want? What do you value? What should you want? | What do you want? Which issue do you value most? | - - Not applicable for this negotiation task |
| Identify alternatives | What is a perfect alternative, a terrible alternative, some reasonable alternative? What is good or bad about each? | What is the maximum number of points you can achieve? What is the minimum number you need? What is the most terrible alternative? | Specified for this negotiation task Specified for this negotiation task Specified for this negotiation task |
| Consider problems and shortcomings | What is wrong or right with your organization? What needs fixing? | What do you want to avoid in this negotiation? | Specified for this negotiation task Not applicable for this negotiation task |
| Predict consequences | What has occurred that was good or bad? What might occur that you care about? | Why do you want to avoid this problem or shortcoming? | Specified for this negotiation task Not applicable for this negotiation task |
| Identify goals, constraints, and guidelines | What are your aspirations? What limitations are placed on you? | What are your aspirations in this negotiation? What limitations are placed on you? | Specified for this negotiation task Specified for this negotiation task |
| Consider different perspectives | What would your constituency be concerned about? At some point in the future, what would concern you? | What would your family (shareholders of ABC Corporation) be concerned about? At some point in the future, what would concern you? | Specified for this negotiation task - |
| Determine strategic objectives | What are your ultimate objectives? What are your values that are absolutely fundamental? | What are your ultimate objectives? What are your values that are absolutely fundamental? (e.g. trust, success, etc.) | - Specified for this negotiation task |
| Determine generic objectives | What objectives do you have for your [employees] / [shareholders], yourself? What environmental, social, economic, or health and safety objectives are important? | What objectives do you have for the owners and for yourself? What social, economic, or health and safety objectives are important? | Specified for this negotiation task Specified for this negotiation task |
| Structure objectives | What are your fundamental objectives? Why is that objective important? How can you achieve it? | What is your fundamental objective? Why is that objective important? How can you achieve it? | - - - |
| Quantify objectives | How would you measure achievement of this objective? Why is objective A three times as important as objective B? | - How would you measure achievement of this objective? | - Not applicable for this negotiation task |

Appendix 12: Subjective Value Inventory (SVI)

General instructions for this questionnaire as stated in Curhan et al. (2006):

‘For each question, please circle a number from 1 to 7 that most accurately reflects your opinion. You will notice that some of the questions are similar to one another; this is primarily to ensure the validity and reliability of the questionnaire. Please simply answer each question independently, without reference to any of the other questions. Important: If you encounter a particular question that is not applicable, simply circle "NA". Even if you did not reach agreement, please try to answer as many questions as possible.’ (p. 512)

| Questions | | Response options |
|---------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| A. FEELINGS ABOUT THE INSTRUMENTAL OUTCOME | | |
| 1 | How satisfied are you with your own outcome – i.e., the extent to which the terms of your agreement (or lack of agreement) benefit you? | 1 = Not at all, 4 = Moderately, and 7 = Perfectly; includes an option for NA |
| 2 | How satisfied are you with the balance between your own outcome and your counterpart(s)'s outcome(s)? | 1 = Not at all, 4 = Moderately, and 7 = Perfectly; includes an option for NA |
| 3 | Did you feel like you forfeited or "lost" in this negotiation? | 1 = Not at all, 4 = Moderately, and 7 = A great deal; includes an option for NA |
| 4 | Do you think the terms of your agreement are consistent with principles of legitimacy or objective criteria (e.g., common standards of fairness, precedent, industry practice, legality, etc.)? | 1 = Not at all, 4 = Moderately, and 7 = Perfectly; includes an option for NA |
| B. FEELINGS ABOUT THE SELF | | |
| 5 | Did you "lose face" (i.e., damage your sense of pride) in the negotiation? | 1 = Not at all, 4 = Moderately, and 7 = A great deal; includes an option for NA |
| 6 | Did this negotiation make you feel more or less competent as a negotiator? | 1 = It made me feel less competent, 4 = It did not make me feel more or less competent, and 7 = It made me feel more competent; includes an option for NA |
| 7 | Did you behave according to your own principles and values? | 1 = Not at all, 4 = Moderately, and 7 = Perfectly; includes an option for NA |
| 8 | Did this negotiation positively or negatively impact your self-image or your impression of yourself? | 1 = It negatively impacted my self-image, 4 = It did not positively or negatively impact my self-image, and 7 = It positively impacted my self-image; includes an option for NA |
| C. FEELINGS ABOUT THE PROCESS | | |
| 9 | Do you feel your counterpart(s) listened to your concerns? | 1 = Not at all, 4 = Moderately, and 7 = Perfectly; includes an option for NA |
| 10 | Would you characterize the negotiation process as fair? | 1 = Not at all, 4 = Moderately, and 7 = Perfectly; includes an option for NA |
| 11 | How satisfied are you with the ease (or difficulty) of reaching an agreement? | 1 = Not at all satisfied, 4 = Moderately satisfied, and 7 = Perfectly satisfied; includes an option for NA |
| 12 | Did your counterpart(s) consider your wishes, opinions, or needs? | 1 = Not at all, 4 = Moderately, and 7 = Perfectly; includes an option for NA |

| D. FEELINGS ABOUT THE RELATIONSHIP | |
|------------------------------------|------------------------------------------------------------------------------------------------------|
| 13 | What kind of "overall" impression did your counterpart(s) make on you? |
| 14 | How satisfied are you with your relationship with your counterpart(s) as result of this negotiation? |
| 15 | Did the negotiation make you trust your counterpart(s) |
| 16 | Did the negotiation build a good foundation for a future relationship with your counterpart(s)? |

1 = Extremely **negative**, 4 = Neither negative nor positive, and 7 = Extremely **positive**; includes an option for NA

1 = Not at all, 4 = Moderately, and 7 = Perfectly; includes an option for NA

1 = Not at all, 4 = Moderately, and 7 = Perfectly; includes an option for NA

1 = Not at all, 4 = Moderately, and 7 = Perfectly; includes an option for NA

Table 43: Subjective value inventory (SVI) adapted from Curhan et al. (2006, p. 501)

Appendix 13: Template for correlations of personal data (SVI)

| Participant ID | Name | Surname | Age | Gender | Educational Background |
|----------------|------|---------|-----|--------|------------------------|
| 13135138934 | | | | | |
| 13135128016 | | | | | |
| 13150129302 | | | | | |
| ... | | | | | |
| 13150133411 | | | | | |
| Data analysis | | | | | - |

Table 44: Correlations of personal data (SVI; devised by the author)

Appendix 14: Template for SIM score data analysis

| Participant ID | Collaboration | Curiosity | Creativity | SIM |
|----------------|---------------|-----------|------------|-----|
| 13135138934 | | | | |
| 13135128016 | | | | |
| 13150129302 | | | | |
| ... | | | | |
| 13150133411 | | | | |

Table 45: Template for SIM score data analysis (devised by the author)

Appendix 15: Behavioural Coding Categories

| Tactic type | General category | Subcategory | Definition | Knowledge manipulation |
|-------------|-----------------------|--------------------|-----------------------------------------------------------------------------------|------------------------|
| Integrative | Offers | Multi-issue offers | Make an offer in two or more issues under discussion | Trade-off |
| | Information provision | Info-priorities | State which issues are more or less relevant to oneself | Info-exchange |
| | Questions | Ques-priorities | Ask which issues are more or less important to other party | Info-exchange |
| | Procedural comments | Proc-package | Suggest discussion of two or more issues at the same time | Trade-off |
| | Procedural comments | Proc-Reciprocity | Suggest a concession to be made in exchange for an unidentified future concession | Trade-off |

Table 46: Behavioural coding categories (adapted from Weingart et al., 1996, p. 1217)

Appendix 16: Participant Information Sheet

PARTICIPANT INFORMATION SHEET

1. Title of Project:

Reducing Fixed-Pie Perceptions in Integrative Negotiations

2. Legal basis for research for studies.

The University undertakes research as part of its function for the community under its legal status. Data protection allows us to use personal data for research with appropriate safeguards in place under the legal basis of **public tasks that are in the public interest**. A full statement of your rights can be found at <https://www.shu.ac.uk/about-this-website/privacy-policy/privacy-notices/privacy-notice-for-research>. However, all University research is reviewed to ensure that participants are treated appropriately and their rights respected. This study was approved by UREC with Converis number ER 29480485. Further information at <https://www.shu.ac.uk/research/ethics-integrity-and-practice>

3. Opening statement:

As part of his dissertation, the researcher is conducting negotiation experiments. The aim of the research is to evaluate common concepts and theories of negotiation success. The researcher would welcome your participation.

4. Why have you asked me to take part?

To generate a valid research result, the experiments must be conducted with a sufficient number of participants. To generate a representative sample, the participation of 120 participants with a business degree is required.

5. Do I have to take part?

It is up to you to decide if you want to take part. You can return to this page at any time during this experiment, take a screenshot of this information and keep the screenshot. You can still decide to withdraw at any time without giving a reason, or you can decide not to answer a particular question.

6. What will I be required to do?

This experiment includes a questionnaire on your negotiation inclinations, a simulated negotiation and a questionnaire on your subjective perception of the simulated negotiation.

7. Where will this take place?

This experiment is conducted online using Microsoft Teams and SurveyMonkey.

8. How often will I have to take part, and for how long?

Participation in the experiment is one-time and is expected to last 90 minutes.

9. Deception:

There is no deception involved in the study.

10. Risks:

There are no possible risks or disadvantages in taking part.

11. Benefits:

There are no possible benefits of taking part.

12. Debrief:

There will be no opportunity to discuss participation and debriefing is not planned.

13. Will anyone be able to connect me with what is recorded and reported?

Personal data and video recordings collected will be made available as a complete set of data only to the research team and audit committee. Publication of this data is not permitted.

14. Who will be responsible for all of the information when this study is over?

The researcher, Kai Fabian Henke, will be responsible for all of the information when the study is over.

15. Who will have access to it?

Personal data and video recordings collected will be made available as a complete set of data only to the research team and audit committee. Publication of this data is not permitted.

16. What will happen to the information when this study is over?

This study will be completed by middle of 2022.

17. How will you use what you find out?

Data will be published as part of the dissertation.

18. How long is the whole study likely to last?

The study takes place between 2021 and 2022.

19. How can I find out about the results of the study?

Please contact Kai Henke (kai.f.henke@student.shu.ac.uk)

Details of who to contact if you have any concerns or if adverse effects occur after the study are given below.

Researcher/ Research Team Details:

Kai Fabian Henke

Mobile: +49160 96368647

Mail: kai.f.henke@student.shu.ac.uk

You should contact the Data Protection Officer if:

- you have a query about how your data is used by the University
- you would like to report a data security breach (e.g. if you think your personal data has been lost or disclosed inappropriately)
- you would like to complain about how the University has used your personal data

DPO@shu.ac.uk

You should contact the Head of Research Ethics (Professor Ann Macaskill) if:

- you have concerns with how the research was undertaken or how you were treated

a.macaskill@shu.ac.uk

Postal address: Sheffield Hallam University, Howard Street, Sheffield S1 1WBT
Telephone: 0114 225 5555

Appendix 17: Consent Form

PARTICIPANT CONSENT FORM

TITLE OF RESEARCH STUDY: ‘Value-Focused Negotiation versus Integrative Mindset: Reducing Fixed-Pie Perceptions in Integrative Negotiations’

Please answer the following questions by ticking the response that applies

- | | YES | NO |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|--------------------------|
| 1. I have read the Information Sheet for this study and have had details of the study explained to me. | <input type="checkbox"/> | <input type="checkbox"/> |
| 2. My questions about the study have been answered to my satisfaction and I understand that I may ask further questions at any point. | <input type="checkbox"/> | <input type="checkbox"/> |
| 3. I understand that I am free to withdraw from the study within the time limits outlined in the Information Sheet, without giving a reason for my withdrawal or to decline to answer any particular questions in the study without any consequences to my future treatment by the researcher. | <input type="checkbox"/> | <input type="checkbox"/> |
| 4. I agree to provide information to the researchers under the conditions of confidentiality set out in the Information Sheet. | <input type="checkbox"/> | <input type="checkbox"/> |
| 5. I wish to participate in the study under the conditions set out in the Information Sheet. | <input type="checkbox"/> | <input type="checkbox"/> |
| 6. I consent to the information collected for the purposes of this research study, once anonymised (so that I cannot be identified), to be used for any other research purposes. | <input type="checkbox"/> | <input type="checkbox"/> |


Participant’s Signature: _____ **Date:** _____

Participant’s Name (Printed): _____

Contact details:

—

Researcher’s Name (Printed): Kai Fabian Henke

Researcher's Signature: 

Researcher's contact details:

Katzgasse 15, 78462 Konstanz, Germany

Mobile: 016096368647

Mail: kai.f.henke@student.shu.ac.uk

Please keep your copy of the consent form and the information sheet together.

Appendix 18: Introduction into the Negotiation Task

Negotiation Experiment: Who is better at negotiating?

The negotiation task - Management vs. Labour

Every 4 years a **collective agreement** is negotiated in ABC Corporation between a representative of **the management** and a **labour representative**. Four issues are to be negotiated:

- Salary (in EUR)
- Vacation (in weeks)
- Annual raise of salary (in percent)
- Insurance rate (in percent)

It is becoming apparent that difficult and possibly long negotiations will be necessary this year. Accordingly, the union's strike funds are well-filled and, if necessary, four strikes can be carried out. **Only the union representative can initiate a strike.**

Each counterpart has **individual further information** about the company and the persons involved in the negotiation. **Be creative** in your preparation!

You have **15 minutes to prepare** for the negotiations. The negotiation itself lasts **15 minutes**.



Appendix 19: Independent Variables

| ID | Demographics | | | Groups and Roles | | | SIM scores | | | |
|-------------|--------------|--------|-------------------------|------------------|----|----|---------------|-----------|------------|-----------|
| | Age | Gender | Professional Experience | Dyad | EG | CG | Collaboration | Curiosity | Creativity | Total SIM |
| 13455950453 | 47 | m | 31 | 1 | | X | 3.40 | 4.20 | 3.00 | 3.53 |
| 13455952423 | 46 | m | 25 | 1 | | X | 4.20 | 6.00 | 5.00 | 5.07 |
| 13455944223 | 43 | m | 20 | 2 | | X | 5.00 | 3.20 | 6.00 | 4.73 |
| 13455953806 | 56 | m | 25 | 2 | | X | 4.80 | 5.80 | 5.20 | 5.27 |
| 13462008066 | 27 | f | 2 | 4 | X | | 4.40 | 2.60 | 2.80 | 3.27 |
| 13462009366 | 29 | f | 3 | 4 | X | | 4.20 | 4.80 | 5.00 | 4.67 |
| 13462008115 | 33 | m | 5 | 5 | X | | 5.60 | 6.00 | 5.80 | 5.80 |
| 13462009210 | 35 | m | 7 | 5 | X | | 5.00 | 4.40 | 2.20 | 3.87 |
| 13463027189 | 24 | f | 4 | 6 | X | | 5.40 | 5.20 | 4.20 | 4.93 |
| 13463035134 | 31 | f | 5 | 6 | X | | 4.80 | 4.80 | 4.80 | 4.80 |
| 13463034113 | 32 | f | 8 | 7 | X | | 5.40 | 5.00 | 4.80 | 5.07 |
| 13463036716 | 26 | m | 5 | 7 | X | | 4.60 | 5.00 | 4.80 | 4.80 |
| 13467988876 | 24 | f | 6 | 8 | | X | 5.60 | 4.80 | 3.60 | 4.67 |
| 13468010001 | 28 | f | 3 | 8 | | X | 4.40 | 5.60 | 3.40 | 4.47 |
| 13468008340 | 32 | f | 10 | 9 | | X | 5.20 | 5.00 | 4.00 | 4.73 |
| 13468009099 | 25 | m | 2 | 9 | | X | 4.20 | 5.60 | 5.00 | 4.93 |
| 13468008749 | 33 | f | 11 | 10 | | X | 4.60 | 5.80 | 5.20 | 5.20 |
| 13468010783 | 32 | m | 7 | 10 | | X | 3.60 | 5.60 | 5.20 | 4.80 |
| 13469059877 | 24 | m | 2 | 11 | X | | 5.40 | 5.00 | 4.20 | 4.87 |
| 13469062024 | 27 | f | 5 | 11 | X | | 4.80 | 5.20 | 4.40 | 4.80 |
| 13468009824 | 38 | m | 11 | 12 | | X | 4.60 | 3.40 | 4.20 | 4.07 |
| 13468016437 | 34 | m | 9 | 12 | | X | 4.20 | 4.40 | 3.40 | 4.00 |

| | | | | | | | | | |
|-------------|----|---|----|----|---|------|------|------|------|
| 13469053374 | 26 | m | 2 | 13 | X | 4.20 | 5.40 | 5.40 | 5.00 |
| 13469059950 | 25 | f | 2 | 13 | X | 4.20 | 3.40 | 4.80 | 4.13 |
| 13469063698 | 49 | m | 22 | 14 | X | 4.00 | 5.20 | 4.40 | 4.53 |
| 13469071085 | 22 | m | 2 | 14 | X | 4.60 | 4.20 | 4.20 | 4.33 |
| 13473808365 | 25 | m | 2 | 15 | X | 4.60 | 4.40 | 4.00 | 4.33 |
| 13473834065 | 26 | m | 2 | 15 | X | 4.60 | 5.40 | 5.60 | 5.20 |
| 13473819847 | 45 | m | 24 | 16 | X | 4.80 | 5.60 | 4.60 | 5.00 |
| 13473827063 | 40 | m | 13 | 16 | X | 4.60 | 4.00 | 4.80 | 4.47 |
| 13455842840 | 28 | f | 3 | 17 | X | 5.00 | 5.00 | 4.00 | 4.67 |
| 13455847646 | 25 | m | 5 | 17 | X | 4.20 | 5.20 | 3.60 | 4.33 |
| 13455845723 | 31 | f | 6 | 18 | X | 5.20 | 4.60 | 3.20 | 4.33 |
| 13455846998 | 25 | f | 2 | 18 | X | 3.60 | 4.40 | 2.60 | 3.53 |
| 13455832481 | 24 | f | 2 | 19 | X | 4.60 | 4.80 | 4.60 | 4.67 |
| 13455846274 | 23 | f | 2 | 19 | X | 3.80 | 4.80 | 4.00 | 4.20 |
| 13451718399 | 30 | m | 5 | 20 | X | 4.00 | 5.40 | 4.80 | 4.73 |
| 13451720756 | 48 | m | 22 | 20 | X | 5.00 | 5.00 | 5.00 | 5.00 |
| 13451619592 | 32 | m | 5 | 21 | X | 4.60 | 5.00 | 4.60 | 4.73 |
| 13451619835 | 22 | m | 2 | 21 | X | 4.80 | 5.80 | 2.60 | 4.40 |
| 13451611265 | 41 | m | 19 | 22 | X | 4.80 | 4.80 | 4.40 | 4.67 |
| 13451619271 | 25 | f | 2 | 22 | X | 5.60 | 5.40 | 3.80 | 4.93 |
| 13450475267 | 27 | f | 2 | 23 | X | 4.80 | 6.00 | 3.60 | 4.80 |
| 13450476668 | 22 | m | 2 | 23 | X | 3.60 | 6.00 | 5.60 | 5.07 |
| 13450468653 | 59 | m | 42 | 24 | X | 5.00 | 4.80 | 2.80 | 4.20 |
| 13450470481 | 23 | f | 2 | 24 | X | 5.40 | 6.00 | 6.00 | 5.80 |
| 13450463265 | 42 | m | 15 | 25 | X | 3.60 | 4.00 | 4.00 | 3.87 |
| 13450463989 | 25 | m | 2 | 25 | X | 4.20 | 5.60 | 4.40 | 4.73 |
| 13449280277 | 32 | f | 8 | 26 | X | 5.00 | 5.00 | 5.40 | 5.13 |
| 13449290067 | 36 | m | 13 | 26 | X | 3.60 | 5.00 | 3.40 | 4.00 |

| | | | | | | | | | |
|--------------------|----|---|----|----|---|------|------|------|------|
| 13449281757 | 43 | m | 16 | 27 | X | 4.40 | 4.80 | 4.40 | 4.53 |
| 13449289458 | 26 | m | 5 | 27 | X | 4.40 | 5.00 | 4.40 | 4.60 |
| 13444218426 | 23 | f | 2 | 28 | X | 5.60 | 5.80 | 3.60 | 5.00 |
| 13444219215 | 32 | f | 7 | 28 | X | 5.80 | 4.60 | 5.00 | 5.13 |
| 13444212769 | 23 | m | 2 | 29 | X | 3.40 | 4.80 | 4.20 | 4.13 |
| 13444217675 | 24 | m | 2 | 29 | X | 3.60 | 4.80 | 4.60 | 4.33 |
| 13442897735 | 34 | f | 5 | 30 | X | 3.00 | 5.20 | 3.80 | 4.00 |
| 13442898653 | 28 | m | 2 | 30 | X | 4.00 | 5.80 | 5.00 | 4.93 |
| 13434762120 | 32 | f | 7 | 31 | X | 4.80 | 5.60 | 3.80 | 4.73 |
| 13434762407 | 29 | f | 6 | 31 | X | 4.20 | 5.00 | 4.60 | 4.60 |
| 13434626207 | 26 | f | 2 | 32 | X | 5.40 | 5.20 | 5.00 | 5.20 |
| 13434627574 | 29 | f | 4 | 32 | X | 4.80 | 3.60 | 3.20 | 3.87 |
| 13434624644 | 33 | m | 6 | 33 | X | 3.40 | 5.20 | 4.80 | 4.47 |
| 13434625718 | 42 | m | 26 | 33 | X | 4.00 | 5.80 | 5.00 | 4.93 |
| 13434617906 | 30 | f | 6 | 34 | X | 6.00 | 5.60 | 3.00 | 4.87 |
| 13434624969 | 32 | f | 10 | 34 | X | 4.60 | 4.60 | 4.00 | 4.40 |
| 13416014611 | 25 | m | 3 | 36 | X | 4.40 | 6.00 | 6.00 | 5.47 |
| 13416021199 | 27 | m | 2 | 36 | X | 5.00 | 4.80 | 5.00 | 4.93 |
| 13416016487 | 33 | m | 10 | 37 | X | 5.20 | 5.60 | 2.60 | 4.70 |
| 13416016926 | 32 | m | 10 | 37 | X | 3.40 | 5.40 | 6.00 | 4.93 |
| 13371686837 | 30 | m | 2 | 38 | X | 4.60 | 5.00 | 4.20 | 4.67 |
| 13371702633 | 45 | m | 12 | 38 | X | 4.80 | 5.20 | 4.20 | 4.73 |
| 13371690000 | 32 | m | 8 | 39 | X | 5.60 | 5.20 | 5.20 | 5.33 |
| 13371691376 | 35 | f | 16 | 39 | X | 5.00 | 5.40 | 4.40 | 4.93 |
| 13368854211 | 49 | m | 24 | 40 | X | 5.60 | 5.20 | 4.60 | 5.13 |
| 13368880033 | 33 | m | 10 | 40 | X | 5.00 | 5.00 | 4.60 | 4.80 |
| 13368869218 | 28 | m | 3 | 41 | X | 4.80 | 4.80 | 3.60 | 4.40 |
| 13368869351 | 31 | f | 2 | 41 | X | 4.20 | 5.60 | 4.00 | 4.60 |

| | | | | | | | | | | |
|--------------------|--------------|----------|-------------|----------|----------|----------|-------------|-------------|-------------|-------------|
| 13216090341 | 28 | m | 4 | 42 | X | | 4.60 | 4.80 | 4.40 | 4.60 |
| 13216421168 | 52 | m | 25 | 42 | X | | 4.80 | 4.80 | 4.40 | 4.67 |
| 13214976189 | 30 | m | 4 | 43 | X | | 3.60 | 3.80 | 3.40 | 3.60 |
| 13214987772 | 31 | f | 9 | 43 | X | | 4.60 | 4.80 | 3.20 | 4.20 |
| 13214813740 | 32 | f | 8 | 44 | | X | 5.00 | 5.80 | 4.40 | 5.07 |
| 13214815310 | 28 | f | 6 | 44 | | X | 4.80 | 4.80 | 4.60 | 4.73 |
| 13214812881 | 35 | m | 14 | 45 | | X | 4.20 | 3.60 | 4.20 | 4.00 |
| 13214815137 | 32 | m | 8 | 45 | | X | 5.20 | 5.80 | 5.60 | 5.53 |
| 13214813696 | 38 | m | 4 | 46 | | X | 4.20 | 6.00 | 5.00 | 5.07 |
| 13214814300 | 32 | f | 7 | 46 | | X | 4.00 | 5.00 | 2.60 | 3.87 |
| 13150137458 | 36 | m | 14 | 47 | | X | 4.20 | 5.00 | 3.20 | 4.13 |
| 13150138570 | 32 | f | 6 | 47 | | X | 4.80 | 5.20 | 3.40 | 4.47 |
| 13150136102 | 27 | f | 5 | 48 | | X | 5.20 | 4.80 | 4.60 | 4.87 |
| 13150138265 | 32 | f | 12 | 48 | | X | 4.80 | 5.00 | 4.20 | 4.67 |
| 13150129302 | 33 | m | 5 | 49 | X | | 4.20 | 5.20 | 4.40 | 4.60 |
| 13150136017 | 33 | m | 12 | 49 | X | | 4.80 | 5.40 | 5.00 | 5.07 |
| 13150128828 | 31 | m | 11 | 50 | X | | 5.00 | 4.80 | 4.60 | 4.80 |
| 13150133411 | 34 | m | 13 | 50 | X | | 5.00 | 4.20 | 3.60 | 4.27 |
| 13135128016 | 36 | m | 14 | 51 | X | | 4.20 | 3.80 | 3.80 | 3.93 |
| 13135138934 | 36 | m | 9 | 51 | X | | 4.00 | 4.20 | 4.40 | 4.20 |
| 13474990888 | 27 | f | 4 | 52 | | X | 4.80 | 5.20 | 3.80 | 4.60 |
| 13474990067 | 27 | m | 8 | 52 | | X | 4.00 | 4.40 | 3.80 | 4.07 |
| Mean | 32.12 | - | 8.48 | - | - | - | 4.58 | 4.99 | 4.30 | 4.62 |
| SD | 7.72 | - | 7.61 | - | - | - | 0.62 | 0.68 | 0.84 | 0.48 |

Table 47: Independent variables (devised by the author)

Appendix 20: Dependent Variables (1/3)

| Participant ID | IEO ¹² | | JEO ¹³ | | SVI ¹⁴ of Counterpart | | | | | |
|----------------|-------------------|-------|-------------------|--------|----------------------------------|------|---------|--------------|---------|-------|
| | IEO | PIEO | JEO | PJEO | Instrumental Outcome | Self | Rapport | | | Total |
| | | | | | | | Process | Relationship | Overall | |
| 13455950453 | 510 | 54.16 | 1,075 | 97.21 | 6.00 | 6.25 | 6.00 | 6.00 | 6.00 | 6.06 |
| 13455952423 | 565 | 68.55 | 1,075 | 97.21 | 4.00 | 5.00 | 4.50 | 5.50 | 5.00 | 4.75 |
| 13455944223 | 525 | 59.86 | 990 | 86.76 | 5.25 | 7.00 | 7.00 | 7.00 | 7.00 | 6.56 |
| 13455953806 | 465 | 30.23 | 990 | 86.76 | 5.75 | 6.25 | 5.50 | 7.00 | 6.25 | 6.13 |
| 13462008066 | 485 | 39.06 | 905 | 63.76 | 5.00 | 6.75 | 6.00 | 6.75 | 6.38 | 6.13 |
| 13462009366 | 420 | 11.17 | 905 | 63.76 | 4.50 | 5.25 | 6.25 | 6.00 | 6.13 | 5.50 |
| 13462008115 | 480 | 41.20 | 1,075 | 97.56 | 4.75 | 4.25 | 5.50 | 5.50 | 5.50 | 5.00 |
| 13462009210 | 595 | 77.08 | 1,075 | 97.56 | 7.00 | 7.00 | 7.00 | 7.00 | 7.00 | 7.00 |
| 13463027189 | 240 | 0.00 | 650 | 11.85 | 4.50 | 2.75 | 5.25 | 6.50 | 5.88 | 4.75 |
| 13463035134 | 410 | 5.64 | 650 | 11.85 | 3.75 | 4.50 | 5.75 | 5.75 | 5.75 | 4.94 |
| 13463034113 | 495 | 43.12 | 990 | 85.37 | 4.50 | 5.00 | 5.50 | 5.75 | 5.63 | 5.19 |
| 13463036716 | 495 | 47.91 | 990 | 85.37 | 4.50 | 5.25 | 5.00 | 6.00 | 5.50 | 5.19 |
| 13467988876 | 345 | 0.00 | 990 | 95.47 | 5.25 | 4.50 | 5.75 | 6.75 | 6.25 | 5.56 |
| 13468010001 | 645 | 90.45 | 990 | 95.47 | 3.50 | 2.75 | 3.75 | 4.75 | 4.25 | 3.69 |
| 13468008340 | 410 | 4.78 | 820 | 21.25 | 5.75 | 3.50 | 5.50 | 6.50 | 6.00 | 5.31 |
| 13468009099 | 410 | 5.64 | 820 | 21.25 | 5.50 | 6.25 | 6.50 | 7.00 | 6.75 | 6.31 |
| 13468008749 | 610 | 84.53 | 1,160 | 100.00 | 4.75 | 5.25 | 6.50 | 5.50 | 6.00 | 5.50 |
| 13468010783 | 550 | 63.69 | 1,160 | 100.00 | 5.00 | 5.50 | 6.00 | 6.00 | 6.00 | 5.63 |
| 13469059877 | 655 | 91.80 | 1,075 | 98.26 | 4.75 | 5.00 | 5.25 | 4.75 | 5.00 | 4.94 |

¹² IEO = Individual Economic Outcome

¹³ JEO = Joint Economic Outcome

¹⁴ Subjective value inventory as noted by the respective counterpart

| | | | | | | | | | | |
|-------------|-----|-------|-------|--------|------|------|------|------|------|------|
| 13469062024 | 420 | 9.49 | 1,075 | 98.26 | 5.75 | 6.25 | 6.25 | 6.25 | 6.25 | 6.13 |
| 13468009824 | 495 | 47.91 | 990 | 85.37 | 5.50 | 6.25 | 7.00 | 6.25 | 6.63 | 6.25 |
| 13468016437 | 495 | 43.12 | 990 | 85.37 | 6.00 | 4.25 | 5.00 | 4.75 | 4.88 | 5.00 |
| 13469053374 | 220 | 0.00 | 905 | 98.61 | 4.00 | 4.50 | 4.75 | 5.50 | 5.13 | 4.69 |
| 13469059950 | 685 | 95.18 | 905 | 98.61 | 3.75 | 5.25 | 5.25 | 5.50 | 5.38 | 4.94 |
| 13469063698 | 465 | 34.98 | 990 | 86.76 | 5.25 | 6.75 | 6.75 | 6.75 | 6.75 | 6.38 |
| 13469071085 | 525 | 54.95 | 990 | 86.76 | 5.50 | 6.50 | 5.50 | 6.75 | 6.13 | 6.06 |
| 13473808365 | 595 | 81.01 | 1,075 | 96.52 | 5.50 | 6.00 | 5.75 | 5.75 | 5.75 | 5.75 |
| 13473834065 | 480 | 36.83 | 1,075 | 96.52 | 3.50 | 6.00 | 3.25 | 5.25 | 4.25 | 4.50 |
| 13473819847 | 465 | 34.34 | 990 | 85.37 | 5.00 | 5.75 | 5.75 | 6.25 | 6.00 | 5.69 |
| 13473827063 | 525 | 54.95 | 990 | 85.37 | 6.00 | 5.50 | 6.25 | 6.00 | 6.13 | 5.94 |
| 13455842840 | 495 | 47.91 | 990 | 85.37 | 4.75 | 6.50 | 7.00 | 6.50 | 6.75 | 6.19 |
| 13455847646 | 495 | 43.12 | 990 | 85.37 | 5.25 | 6.00 | 6.50 | 6.75 | 6.63 | 6.13 |
| 13455845723 | 455 | 29.45 | 905 | 60.98 | 4.75 | 3.25 | 4.25 | 3.00 | 3.63 | 3.81 |
| 13455846998 | 450 | 23.50 | 905 | 60.98 | 4.00 | 3.25 | 2.75 | 4.00 | 3.38 | 3.50 |
| 13455832481 | 410 | 4.78 | 820 | 21.25 | 4.25 | 5.00 | 6.25 | 6.00 | 6.13 | 5.38 |
| 13455846274 | 410 | 5.64 | 820 | 21.25 | 5.00 | 5.50 | 6.25 | 6.75 | 6.50 | 5.88 |
| 13451718399 | 640 | 89.82 | 1,160 | 100.00 | 7.00 | 7.00 | 6.75 | 7.00 | 6.88 | 6.94 |
| 13451720756 | 520 | 53.03 | 1,160 | 100.00 | 5.25 | 5.25 | 6.00 | 6.00 | 6.00 | 5.63 |
| 13451619592 | 510 | 49.27 | 905 | 63.76 | 3.50 | 4.75 | 6.25 | 6.50 | 6.38 | 5.25 |
| 13451619835 | 395 | 0.00 | 905 | 63.76 | 6.25 | 5.25 | 6.00 | 5.50 | 5.75 | 5.75 |
| 13451611265 | 640 | 93.81 | 990 | 97.56 | 4.00 | 6.00 | 5.25 | 4.50 | 4.88 | 4.94 |
| 13451619271 | 350 | 0.00 | 990 | 97.56 | 6.25 | 6.75 | 5.50 | 6.50 | 6.00 | 6.25 |
| 13450475267 | 480 | 36.83 | 1,075 | 96.52 | 5.00 | 6.00 | 6.50 | 4.25 | 5.38 | 5.44 |
| 13450476668 | 595 | 81.01 | 1,075 | 96.52 | 4.75 | 6.00 | 6.00 | 5.50 | 5.75 | 5.56 |
| 13450468653 | 445 | 21.29 | 650 | 31.36 | 4.50 | 5.75 | 5.00 | 6.00 | 5.50 | 5.31 |
| 13450470481 | 205 | 0.00 | 650 | 31.36 | 5.25 | 4.50 | 5.25 | 5.75 | 5.50 | 5.19 |
| 13450463265 | 400 | 0.00 | 1,160 | 100.00 | 6.25 | 7.00 | 6.50 | 5.75 | 6.13 | 6.38 |
| 13450463989 | 760 | 99.17 | 1,160 | 100.00 | 3.75 | 5.50 | 6.50 | 7.00 | 6.75 | 5.69 |

| | | | | | | | | | | |
|-------------|-----|-------|-------|--------|------|------|------|------|------|------|
| 13449280277 | 655 | 89.76 | 1,075 | 97.21 | 5.75 | 5.50 | 5.50 | 5.50 | 5.50 | 5.56 |
| 13449290067 | 420 | 11.17 | 1,075 | 97.21 | 4.50 | 4.75 | 5.25 | 5.75 | 5.50 | 5.06 |
| 13449281757 | 485 | 39.06 | 905 | 60.63 | 7.00 | 6.25 | 7.00 | 7.00 | 7.00 | 6.81 |
| 13449289458 | 420 | 11.17 | 905 | 60.63 | 6.00 | 6.25 | 6.50 | 6.50 | 6.50 | 6.31 |
| 13444218426 | 480 | 41.20 | 905 | 59.58 | 6.75 | 5.25 | 6.50 | 7.00 | 6.75 | 6.37 |
| 13444219215 | 425 | 12.28 | 905 | 59.58 | 6.25 | 6.00 | 6.50 | 7.00 | 6.75 | 6.44 |
| 13444212769 | 610 | 82.50 | 1,160 | 100.00 | 4.50 | 5.25 | 5.50 | 4.25 | 4.88 | 4.88 |
| 13444217675 | 550 | 68.69 | 1,160 | 100.00 | 5.50 | 5.00 | 4.25 | 3.75 | 4.00 | 4.64 |
| 13442897735 | 550 | 63.69 | 1,160 | 100.00 | 6.75 | 6.00 | 6.25 | 6.75 | 6.50 | 6.44 |
| 13442898653 | 610 | 84.53 | 1,160 | 100.00 | 6.25 | 6.00 | 3.75 | 5.00 | 4.38 | 5.25 |
| 13434762120 | 420 | 9.49 | 905 | 60.63 | 6.25 | 6.25 | 6.25 | 7.00 | 6.63 | 6.44 |
| 13434762407 | 485 | 43.50 | 905 | 60.63 | 6.50 | 7.00 | 6.75 | 5.75 | 6.25 | 6.50 |
| 13434626207 | 510 | 54.21 | 905 | 65.85 | 5.50 | 6.00 | 5.50 | 5.25 | 5.37 | 5.56 |
| 13434627574 | 395 | 0.00 | 905 | 65.85 | 6.50 | 5.75 | 6.00 | 6.50 | 6.25 | 6.19 |
| 13434624644 | 495 | 47.91 | 990 | 85.37 | 6.75 | 6.50 | 6.75 | 7.00 | 6.88 | 6.75 |
| 13434625718 | 495 | 43.12 | 990 | 85.37 | 6.50 | 4.75 | 6.75 | 6.25 | 6.50 | 6.06 |
| 13434617906 | 405 | 3.45 | 925 | 68.99 | 5.25 | 5.50 | 5.75 | 5.75 | 5.75 | 5.56 |
| 13434624969 | 520 | 53.03 | 925 | 68.99 | 4.75 | 6.00 | 5.75 | 6.25 | 6.00 | 5.69 |
| 13416014611 | 525 | 54.95 | 990 | 85.37 | 6.00 | 5.25 | 5.75 | 6.25 | 6.00 | 5.82 |
| 13416021199 | 465 | 34.34 | 990 | 85.37 | 6.50 | 6.75 | 5.25 | 5.75 | 5.50 | 6.06 |
| 13416016487 | 450 | 23.50 | 1,075 | 96.86 | 5.75 | 5.25 | 3.50 | 6.75 | 5.13 | 5.32 |
| 13416016926 | 625 | 87.23 | 1,075 | 96.86 | 7.00 | 5.50 | 6.00 | 3.75 | 4.88 | 5.56 |
| 13371686837 | 450 | 26.90 | 1,075 | 96.86 | 6.25 | 5.00 | 6.75 | 6.25 | 6.50 | 6.06 |
| 13371702633 | 625 | 84.18 | 1,075 | 96.86 | 5.75 | 5.25 | 5.50 | 6.00 | 5.75 | 5.63 |
| 13371690000 | 540 | 60.45 | 1,075 | 96.62 | 6.00 | 5.00 | 5.25 | 6.00 | 5.63 | 5.56 |
| 13371691376 | 535 | 63.52 | 1,075 | 96.52 | 6.25 | 5.75 | 6.50 | 5.50 | 6.00 | 6.00 |
| 13368854211 | 395 | 0.00 | 905 | 63.37 | 6.75 | 5.40 | 6.75 | 4.25 | 5.50 | 5.56 |
| 13368880033 | 510 | 49.27 | 905 | 63.37 | 6.25 | 6.50 | 5.50 | 6.75 | 6.13 | 6.25 |
| 13368869218 | 465 | 30.23 | 990 | 85.37 | 4.50 | 4.75 | 5.75 | 6.00 | 5.88 | 5.25 |

| | | | | | | | | | | |
|-------------|---------------|--------------|---------------|--------------|-------------|-------------|-------------|-------------|-------------|-------------|
| 13368869351 | 525 | 59.86 | 990 | 85.37 | 6.00 | 5.25 | 6.00 | 6.25 | 6.13 | 5.88 |
| 13216090341 | 570 | 70.21 | 1,075 | 97.21 | 5.75 | 6.25 | 6.25 | 6.50 | 6.38 | 6.19 |
| 13216421168 | 505 | 52.24 | 1,075 | 97.21 | 6.25 | 5.75 | 6.00 | 6.00 | 6.00 | 6.00 |
| 13214976189 | 550 | 63.69 | 990 | 86.76 | 7.00 | 6.50 | 5.50 | 6.00 | 5.75 | 6.25 |
| 13214987772 | 440 | 21.68 | 990 | 86.76 | 6.25 | 6.00 | 6.50 | 6.50 | 6.50 | 6.31 |
| 13214813740 | 440 | 18.89 | 820 | 28.57 | 5.00 | 4.25 | 5.00 | 3.25 | 4.13 | 4.38 |
| 13214815310 | 380 | 0.00 | 820 | 28.57 | 4.50 | 4.00 | 3.75 | 4.50 | 4.13 | 4.19 |
| 13214812881 | 460 | 28.00 | 1,160 | 100.00 | 6.00 | 5.25 | 6.00 | 7.00 | 6.50 | 6.06 |
| 13214815137 | 700 | 96.53 | 1,160 | 100.00 | 3.75 | 4.75 | 4.75 | 5.50 | 5.13 | 4.69 |
| 13214813696 | 510 | 49.27 | 905 | 63.42 | 6.00 | 5.25 | 4.75 | 6.25 | 5.50 | 5.56 |
| 13214814300 | 395 | 0.00 | 905 | 63.42 | 6.50 | 5.00 | 5.75 | 5.00 | 5.38 | 5.56 |
| 13150137458 | 465 | 34.34 | 990 | 86.06 | 5.25 | 4.50 | 5.00 | 5.25 | 5.13 | 5.00 |
| 13150138570 | 525 | 54.95 | 990 | 86.06 | 4.25 | 5.75 | 5.00 | 6.00 | 5.50 | 5.25 |
| 13150136102 | 625 | 87.23 | 1,075 | 97.56 | 5.75 | 5.50 | 6.00 | 6.00 | 6.00 | 5.81 |
| 13150138265 | 450 | 23.50 | 1,075 | 97.56 | 6.50 | 6.00 | 6.25 | 6.25 | 6.25 | 6.25 |
| 13150129302 | 700 | 95.61 | 1,160 | 100.00 | 6.50 | 4.50 | 6.75 | 7.00 | 6.88 | 6.19 |
| 13150136017 | 460 | 31.76 | 1,160 | 100.00 | 7.00 | 7.00 | 7.00 | 7.00 | 7.00 | 7.00 |
| 13150128828 | 450 | 23.50 | 905 | 60.98 | 7.00 | 7.00 | 7.00 | 7.00 | 7.00 | 7.00 |
| 13150133411 | 455 | 29.45 | 905 | 60.98 | 6.25 | 6.50 | 6.25 | 7.00 | 6.63 | 6.50 |
| 13135128016 | 525 | 40.47 | 990 | 86.06 | 4.75 | 5.00 | 5.50 | 6.00 | 5.75 | 5.31 |
| 13135138934 | 465 | 48.70 | 990 | 86.06 | 5.00 | 6.00 | 5.00 | 7.00 | 6.00 | 5.75 |
| 13474990888 | 380 | 0.00 | 990 | 92.68 | 5.25 | 5.25 | 4.50 | 5.50 | 5.00 | 5.13 |
| 13474990067 | 610 | 84.53 | 990 | 92.68 | 3.75 | 6.00 | 4.00 | 3.50 | 3.75 | 4.32 |
| Mean | 494.35 | 42.78 | 988.70 | 79.78 | 5.44 | 5.52 | 5.72 | 5.92 | 5.82 | 5.65 |
| SD | 96.79 | 29.70 | 117.49 | 23.50 | 0.97 | 0.93 | 0.91 | 0.94 | 0.81 | 0.72 |

Table 48: Dependent variables (1/3; (devised by the author)

Appendix 21: Dependent Variables (2/3)

| Participant ID | Absence vs. presence of Integrative Negotiation Behaviour | | | | | Mean |
|----------------|-----------------------------------------------------------|------------------------------------------------------|-----------------------------------|----------------------|--------------------------------|------|
| | Making Multi Issue Offers | Providing Information about priorities across issues | Asking questions about priorities | Suggesting packaging | Suggesting delayed reciprocity | |
| 13455950453 | 2 | 2 | 1 | 2 | 1 | 1.6 |
| 13455952423 | 1 | 1 | 1 | 2 | 1 | 1.2 |
| 13455944223 | 1 | 1 | 1 | 2 | 1 | 1.2 |
| 13455953806 | 2 | 1 | 1 | 2 | 2 | 1.6 |
| 13462008066 | 1 | 1 | 1 | 1 | 1 | 1.0 |
| 13462009366 | 2 | 1 | 1 | 2 | 2 | 1.6 |
| 13462008115 | 1 | 1 | 2 | 2 | 2 | 1.6 |
| 13462009210 | 2 | 2 | 1 | 1 | 1 | 1.4 |
| 13463027189 | 1 | 1 | 2 | 1 | 1 | 1.2 |
| 13463035134 | 1 | 1 | 1 | 1 | 1 | 1.0 |
| 13463034113 | 1 | 2 | 2 | 1 | 1 | 1.4 |
| 13463036716 | 2 | 2 | 2 | 2 | 2 | 2.0 |
| 13467988876 | 1 | 1 | 2 | 1 | 2 | 1.4 |
| 13468010001 | 1 | 1 | 1 | 1 | 2 | 1.2 |
| 13468008340 | 1 | 2 | 1 | 1 | 1 | 1.2 |
| 13468009099 | 1 | 2 | 1 | 1 | 2 | 1.4 |
| 13468008749 | 2 | 2 | 2 | 2 | 2 | 2.0 |
| 13468010783 | 2 | 2 | 2 | 2 | 2 | 2.0 |
| 13469059877 | 2 | 2 | 1 | 2 | 2 | 1.8 |
| 13469062024 | 2 | 2 | 2 | 1 | 2 | 1.8 |
| 13468009824 | 2 | 2 | 2 | 2 | 2 | 2.0 |
| 13468016437 | 2 | 2 | 1 | 2 | 2 | 1.8 |

| | | | | | | |
|-------------|---|---|---|---|---|-----|
| 13469053374 | 1 | 1 | 1 | 1 | 1 | 1.0 |
| 13469059950 | 2 | 1 | 1 | 1 | 2 | 1.4 |
| 13469063698 | 1 | 2 | 2 | 1 | 2 | 1.6 |
| 13469071085 | 1 | 2 | 1 | 1 | 2 | 1.4 |
| 13473808365 | 1 | 1 | 2 | 1 | 1 | 1.2 |
| 13473834065 | 1 | 2 | 1 | 1 | 2 | 1.4 |
| 13473819847 | 2 | 2 | 2 | 2 | 2 | 2.0 |
| 13473827063 | 1 | 2 | 1 | 1 | 1 | 1.2 |
| 13455842840 | 1 | 2 | 2 | 2 | 2 | 1.8 |
| 13455847646 | 2 | 2 | 1 | 2 | 1 | 1.6 |
| 13455845723 | 2 | 1 | 2 | 2 | 2 | 1.8 |
| 13455846998 | 1 | 1 | 1 | 1 | 1 | 1.0 |
| 13455832481 | 1 | 1 | 1 | 1 | 2 | 1.2 |
| 13455846274 | 1 | 1 | 1 | 1 | 2 | 1.2 |
| 13451718399 | 2 | 2 | 2 | 2 | 2 | 2.0 |
| 13451720756 | 2 | 2 | 2 | 2 | 2 | 2.0 |
| 13451619592 | 1 | 2 | 1 | 2 | 2 | 1.6 |
| 13451619835 | 1 | 1 | 1 | 1 | 2 | 1.2 |
| 13451611265 | 2 | 1 | 2 | 2 | 2 | 1.8 |
| 13451619271 | 1 | 1 | 1 | 1 | 2 | 1.2 |
| 13450475267 | 1 | 1 | 1 | 1 | 1 | 1.0 |
| 13450476668 | 2 | 2 | 2 | 2 | 2 | 2.0 |
| 13450468653 | 2 | 1 | 1 | 1 | 2 | 1.4 |
| 13450470481 | 1 | 1 | 1 | 1 | 1 | 1.0 |
| 13450463265 | 2 | 2 | 2 | 2 | 1 | 1.8 |
| 13450463989 | 2 | 2 | 1 | 2 | 2 | 1.8 |
| 13449280277 | 2 | 2 | 2 | 2 | 2 | 2.0 |
| 13449290067 | 2 | 2 | 2 | 2 | 2 | 2.0 |
| 13449281757 | 1 | 1 | 1 | 2 | 2 | 1.4 |

| | | | | | | |
|-------------|---|---|---|---|---|-----|
| 13449289458 | 1 | 1 | 1 | 1 | 1 | 1.0 |
| 13444218426 | 1 | 2 | 2 | 1 | 1 | 1.4 |
| 13444219215 | 2 | 1 | 1 | 2 | 1 | 1.4 |
| 13444212769 | 1 | 1 | 1 | 2 | 2 | 1.4 |
| 13444217675 | 2 | 1 | 1 | 1 | 2 | 1.4 |
| 13442897735 | 2 | 1 | 2 | 2 | 2 | 1.8 |
| 13442898653 | 2 | 2 | 1 | 1 | 2 | 1.6 |
| 13434762120 | 2 | 2 | 1 | 2 | 1 | 1.6 |
| 13434762407 | 1 | 1 | 1 | 1 | 2 | 1.2 |
| 13434626207 | 1 | 1 | 1 | 2 | 1 | 1.2 |
| 13434627574 | 1 | 1 | 1 | 1 | 1 | 1.0 |
| 13434624644 | 1 | 1 | 1 | 1 | 1 | 1.0 |
| 13434625718 | 1 | 1 | 1 | 2 | 2 | 1.4 |
| 13434617906 | 1 | 2 | 1 | 2 | 2 | 1.6 |
| 13434624969 | 1 | 1 | 2 | 2 | 2 | 1.6 |
| 13416014611 | 1 | 1 | 2 | 1 | 1 | 1.2 |
| 13416021199 | 1 | 1 | 1 | 1 | 2 | 1.2 |
| 13416016487 | 2 | 1 | 2 | 1 | 1 | 1.4 |
| 13416016926 | 1 | 2 | 1 | 2 | 2 | 1.6 |
| 13371686837 | 2 | 1 | 2 | 1 | 2 | 1.6 |
| 13371702633 | 1 | 2 | 1 | 2 | 1 | 1.4 |
| 13371690000 | 1 | 2 | 1 | 2 | 2 | 1.6 |
| 13371691376 | 2 | 2 | 2 | 2 | 2 | 2.0 |
| 13368854211 | 2 | 2 | 1 | 2 | 1 | 1.6 |
| 13368880033 | 2 | 2 | 2 | 2 | 1 | 1.8 |
| 13368869218 | 2 | 2 | 1 | 2 | 2 | 1.8 |
| 13368869351 | 1 | 1 | 1 | 1 | 1 | 1.0 |
| 13216090341 | 1 | 2 | 1 | 2 | 1 | 1.4 |
| 13216421168 | 2 | 1 | 2 | 1 | 1 | 1.4 |

| | | | | | | |
|-------------|-----|-----|-----|-----|-----|-----|
| 13214976189 | 1 | 2 | 1 | 1 | 1 | 1.2 |
| 13214987772 | 2 | 1 | 2 | 2 | 1 | 1.6 |
| 13214813740 | 1 | 1 | 2 | 2 | 1 | 1.4 |
| 13214815310 | 2 | 1 | 1 | 2 | 2 | 1.6 |
| 13214812881 | 1 | 1 | 1 | 1 | 2 | 1.2 |
| 13214815137 | 2 | 2 | 2 | 2 | 2 | 2.0 |
| 13214813696 | 2 | 2 | 1 | 1 | 1 | 1.4 |
| 13214814300 | 1 | 1 | 1 | 1 | 1 | 1.0 |
| 13150137458 | 2 | 1 | 1 | 2 | 2 | 1.6 |
| 13150138570 | 1 | 1 | 1 | 1 | 2 | 1.2 |
| 13150136102 | 2 | 2 | 2 | 2 | 2 | 2.0 |
| 13150138265 | 1 | 2 | 1 | 1 | 2 | 1.4 |
| 13150129302 | 2 | 2 | 2 | 2 | 2 | 2.0 |
| 13150136017 | 1 | 2 | 2 | 1 | 2 | 1.6 |
| 13150128828 | 1 | 2 | 1 | 1 | 1 | 1.2 |
| 13150133411 | 1 | 1 | 1 | 1 | 1 | 1.0 |
| 13135128016 | 2 | 1 | 2 | 2 | 2 | 1.8 |
| 13135138934 | 1 | 1 | 1 | 1 | 1 | 1.0 |
| 13474990888 | 1 | 2 | 1 | 1 | 1 | 1.2 |
| 13474990067 | 2 | 1 | 1 | 1 | 2 | 1.4 |
| Mean | 1.5 | 1.5 | 1.4 | 1.5 | 1.6 | 1.5 |
| SD | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.3 |

Table 49: Dependent variables (2/3; devised by the author)

Appendix 22: Dependent Variables (3/3)

| Participant ID | SVI ¹⁵ of Counterpart | | | | | | SVI ¹⁶ of Self | | | | | |
|----------------|----------------------------------|------|---------|--------------|---------|-------|---------------------------|------|---------|--------------|---------|-------|
| | Instrumental Outcome | Self | Rapport | | | Total | Instrumental Outcome | Self | Rapport | | | Total |
| | | | Process | Relationship | Overall | | | | Process | Relationship | Overall | |
| 13135128016 | 4.75 | 5.00 | 5.50 | 6.00 | 5.75 | 5.31 | 5.00 | 6.00 | 5.00 | 7.00 | 6.00 | 5.75 |
| 13135138934 | 5.00 | 6.00 | 5.00 | 7.00 | 6.00 | 5.75 | 4.75 | 5.00 | 5.50 | 6.00 | 5.75 | 5.31 |
| 13150128828 | 7.00 | 7.00 | 7.00 | 7.00 | 7.00 | 7.00 | 6.25 | 6.50 | 6.25 | 7.00 | 6.63 | 6.50 |
| 13150129302 | 6.50 | 4.50 | 6.75 | 7.00 | 6.88 | 6.19 | 7.00 | 7.00 | 7.00 | 7.00 | 7.00 | 7.00 |
| 13150133411 | 6.25 | 6.50 | 6.25 | 7.00 | 6.63 | 6.50 | 7.00 | 7.00 | 7.00 | 7.00 | 7.00 | 7.00 |
| 13150136017 | 7.00 | 7.00 | 7.00 | 7.00 | 7.00 | 7.00 | 6.50 | 4.50 | 6.75 | 7.00 | 6.88 | 6.19 |
| 13150136102 | 5.75 | 5.50 | 6.00 | 6.00 | 6.00 | 5.81 | 6.50 | 6.00 | 6.25 | 6.25 | 6.25 | 6.25 |
| 13150137458 | 5.25 | 4.50 | 5.00 | 5.25 | 5.13 | 5.00 | 4.25 | 5.75 | 5.00 | 6.00 | 5.50 | 5.25 |
| 13150138265 | 6.50 | 6.00 | 6.25 | 6.25 | 6.25 | 6.25 | 5.75 | 5.50 | 6.00 | 6.00 | 6.00 | 5.81 |
| 13150138570 | 4.25 | 5.75 | 5.00 | 6.00 | 5.50 | 5.25 | 5.25 | 4.50 | 5.00 | 5.25 | 5.13 | 5.00 |
| 13214812881 | 6.00 | 5.25 | 6.00 | 7.00 | 6.50 | 6.06 | 3.75 | 4.75 | 4.75 | 5.50 | 5.13 | 4.69 |
| 13214813696 | 6.00 | 5.25 | 4.75 | 6.25 | 5.50 | 5.56 | 6.50 | 5.00 | 5.75 | 5.00 | 5.38 | 5.56 |
| 13214813740 | 5.00 | 4.25 | 5.00 | 3.25 | 4.13 | 4.38 | 4.50 | 4.00 | 3.75 | 4.50 | 4.13 | 4.19 |
| 13214814300 | 6.50 | 5.00 | 5.75 | 5.00 | 5.38 | 5.56 | 6.00 | 5.25 | 4.75 | 6.25 | 5.50 | 5.56 |
| 13214815137 | 3.75 | 4.75 | 4.75 | 5.50 | 5.13 | 4.69 | 6.00 | 5.25 | 6.00 | 7.00 | 6.50 | 6.06 |
| 13214815310 | 4.50 | 4.00 | 3.75 | 4.50 | 4.13 | 4.19 | 5.00 | 4.25 | 5.00 | 3.25 | 4.13 | 4.38 |
| 13214976189 | 7.00 | 6.50 | 5.50 | 6.00 | 5.75 | 6.25 | 6.25 | 6.00 | 6.50 | 6.50 | 6.50 | 6.31 |
| 13214987772 | 6.25 | 6.00 | 6.50 | 6.50 | 6.50 | 6.31 | 7.00 | 6.50 | 5.50 | 6.00 | 5.75 | 6.25 |
| 13216090341 | 5.75 | 6.25 | 6.25 | 6.50 | 6.38 | 6.19 | 6.25 | 5.75 | 6.00 | 6.00 | 6.00 | 6.00 |
| 13216421168 | 6.25 | 5.75 | 6.00 | 6.00 | 6.00 | 6.00 | 5.75 | 6.25 | 6.25 | 6.50 | 6.38 | 6.19 |

¹⁵ Subjective value inventory as noted by the respective counterpart

¹⁶ Subjective value inventory as noted by the respective counterpart

| | | | | | | | | | | | | |
|-------------|------|------|------|------|------|------|------|------|------|------|------|------|
| 13368854211 | 6.75 | 5.40 | 6.75 | 4.25 | 5.50 | 5.56 | 6.25 | 6.50 | 5.50 | 6.75 | 6.13 | 6.25 |
| 13368869218 | 4.50 | 4.75 | 5.75 | 6.00 | 5.88 | 5.25 | 6.00 | 5.25 | 6.00 | 6.25 | 6.13 | 5.88 |
| 13368869351 | 6.00 | 5.25 | 6.00 | 6.25 | 6.13 | 5.88 | 4.50 | 4.75 | 5.75 | 6.00 | 5.88 | 5.25 |
| 13368880033 | 6.25 | 6.50 | 5.50 | 6.75 | 6.13 | 6.25 | 6.75 | 5.40 | 6.75 | 4.25 | 5.50 | 5.56 |
| 13371686837 | 6.25 | 5.00 | 6.75 | 6.25 | 6.50 | 6.06 | 5.75 | 5.25 | 5.50 | 6.00 | 5.75 | 5.63 |
| 13371690000 | 6.00 | 5.00 | 5.25 | 6.00 | 5.63 | 5.56 | 6.25 | 5.75 | 6.50 | 5.50 | 6.00 | 6.00 |
| 13371691376 | 6.25 | 5.75 | 6.50 | 5.50 | 6.00 | 6.00 | 6.00 | 5.00 | 5.25 | 6.00 | 5.63 | 5.56 |
| 13371702633 | 5.75 | 5.25 | 5.50 | 6.00 | 5.75 | 5.63 | 6.25 | 5.00 | 6.75 | 6.25 | 6.50 | 6.06 |
| 13416014611 | 6.00 | 5.25 | 5.75 | 6.25 | 6.00 | 5.82 | 6.50 | 6.75 | 5.25 | 5.75 | 5.50 | 6.06 |
| 13416016487 | 5.75 | 5.25 | 3.50 | 6.75 | 5.13 | 5.32 | 7.00 | 5.50 | 6.00 | 3.75 | 4.88 | 5.56 |
| 13416016926 | 7.00 | 5.50 | 6.00 | 3.75 | 4.88 | 5.56 | 5.75 | 5.25 | 3.50 | 6.75 | 5.13 | 5.32 |
| 13416021199 | 6.50 | 6.75 | 5.25 | 5.75 | 5.50 | 6.06 | 6.00 | 5.25 | 5.75 | 6.25 | 6.00 | 5.82 |
| 13434617906 | 5.25 | 5.50 | 5.75 | 5.75 | 5.75 | 5.56 | 4.75 | 6.00 | 5.75 | 6.25 | 6.00 | 5.69 |
| 13434624644 | 6.75 | 6.50 | 6.75 | 7.00 | 6.88 | 6.75 | 6.50 | 4.75 | 6.75 | 6.25 | 6.50 | 6.06 |
| 13434624969 | 4.75 | 6.00 | 5.75 | 6.25 | 6.00 | 5.69 | 5.25 | 5.50 | 5.75 | 5.75 | 5.75 | 5.56 |
| 13434625718 | 6.50 | 4.75 | 6.75 | 6.25 | 6.50 | 6.06 | 6.75 | 6.75 | 6.50 | 6.75 | 7.00 | 6.75 |
| 13434626207 | 5.50 | 6.00 | 5.50 | 5.25 | 5.37 | 5.56 | 6.50 | 5.75 | 6.00 | 6.50 | 6.25 | 6.19 |
| 13434627574 | 6.50 | 5.75 | 6.00 | 6.50 | 6.25 | 6.19 | 5.50 | 6.00 | 5.50 | 5.25 | 5.37 | 5.56 |
| 13434762120 | 6.25 | 6.25 | 6.25 | 7.00 | 6.63 | 6.44 | 6.50 | 7.00 | 6.75 | 5.75 | 6.25 | 6.50 |
| 13434762407 | 6.50 | 7.00 | 6.75 | 5.75 | 6.25 | 6.50 | 6.25 | 6.25 | 6.25 | 7.00 | 6.63 | 6.44 |
| 13442897735 | 6.75 | 6.00 | 6.25 | 6.75 | 6.50 | 6.44 | 6.25 | 6.00 | 3.75 | 5.00 | 4.38 | 5.25 |
| 13442898653 | 6.25 | 6.00 | 3.75 | 5.00 | 4.38 | 5.25 | 6.75 | 6.00 | 6.25 | 6.75 | 6.50 | 6.44 |
| 13444212769 | 4.50 | 5.25 | 5.50 | 4.25 | 4.88 | 4.88 | 5.50 | 5.00 | 4.25 | 3.75 | 4.00 | 4.64 |
| 13444217675 | 5.50 | 5.00 | 4.25 | 3.75 | 4.00 | 4.64 | 4.50 | 5.25 | 5.50 | 4.25 | 4.88 | 4.88 |
| 13444218426 | 6.75 | 5.25 | 6.50 | 7.00 | 6.75 | 6.37 | 6.25 | 6.00 | 6.50 | 7.00 | 6.75 | 6.44 |
| 13444219215 | 6.25 | 6.00 | 6.50 | 7.00 | 6.75 | 6.44 | 6.75 | 5.25 | 6.50 | 7.00 | 6.75 | 6.37 |
| 13449280277 | 5.75 | 5.50 | 5.50 | 5.50 | 5.50 | 5.56 | 4.50 | 4.75 | 5.25 | 5.75 | 5.50 | 5.06 |
| 13449281757 | 7.00 | 6.25 | 7.00 | 7.00 | 7.00 | 6.81 | 6.00 | 6.25 | 6.50 | 6.50 | 6.50 | 6.31 |
| 13449289458 | 6.00 | 6.25 | 6.50 | 6.50 | 6.50 | 6.31 | 7.00 | 6.25 | 7.00 | 7.00 | 7.00 | 6.81 |

| | | | | | | | | | | | | |
|-------------|------|------|------|------|------|------|------|------|------|------|------|------|
| 13449290067 | 4.50 | 4.75 | 5.25 | 5.75 | 5.50 | 5.06 | 5.75 | 5.50 | 5.50 | 5.50 | 5.50 | 5.56 |
| 13450463265 | 6.25 | 7.00 | 6.50 | 5.75 | 6.13 | 6.38 | 3.75 | 5.50 | 6.50 | 7.00 | 6.75 | 5.69 |
| 13450463989 | 3.75 | 5.50 | 6.50 | 7.00 | 6.75 | 5.69 | 6.25 | 7.00 | 6.50 | 5.75 | 6.13 | 6.38 |
| 13450468653 | 4.50 | 5.75 | 5.00 | 6.00 | 5.50 | 5.31 | 5.25 | 4.50 | 5.25 | 5.75 | 5.50 | 5.19 |
| 13450470481 | 5.25 | 4.50 | 5.25 | 5.75 | 5.50 | 5.19 | 4.50 | 5.75 | 5.00 | 6.00 | 5.50 | 5.31 |
| 13450475267 | 5.00 | 6.00 | 6.50 | 4.25 | 5.38 | 5.44 | 4.75 | 6.00 | 6.00 | 5.50 | 5.75 | 5.56 |
| 13450476668 | 4.75 | 6.00 | 6.00 | 5.50 | 5.75 | 5.56 | 5.00 | 6.00 | 6.50 | 4.25 | 5.38 | 5.44 |
| 13451611265 | 4.00 | 6.00 | 5.25 | 4.50 | 4.88 | 4.94 | 6.25 | 6.75 | 5.50 | 6.50 | 6.00 | 6.25 |
| 13451619271 | 6.25 | 6.75 | 5.50 | 6.50 | 6.00 | 6.25 | 4.00 | 6.00 | 5.25 | 4.50 | 4.88 | 4.94 |
| 13451619592 | 3.50 | 4.75 | 6.25 | 6.50 | 6.38 | 5.25 | 6.25 | 5.25 | 6.00 | 5.50 | 5.75 | 5.75 |
| 13451619835 | 6.25 | 5.25 | 6.00 | 5.50 | 5.75 | 5.75 | 3.50 | 4.75 | 6.25 | 6.50 | 6.38 | 5.25 |
| 13451718399 | 7.00 | 7.00 | 6.75 | 7.00 | 6.88 | 6.94 | 5.25 | 5.25 | 6.00 | 6.00 | 6.00 | 5.63 |
| 13451720756 | 5.25 | 5.25 | 6.00 | 6.00 | 6.00 | 5.63 | 7.00 | 7.00 | 6.75 | 7.00 | 6.88 | 6.94 |
| 13455832481 | 4.25 | 5.00 | 6.25 | 6.00 | 6.13 | 5.38 | 5.00 | 5.50 | 6.25 | 6.75 | 6.50 | 5.88 |
| 13455842840 | 4.75 | 6.50 | 7.00 | 6.50 | 6.75 | 6.19 | 5.25 | 6.00 | 6.50 | 6.75 | 6.63 | 6.13 |
| 13455845723 | 4.75 | 3.25 | 4.25 | 3.00 | 3.63 | 3.81 | 4.00 | 3.25 | 2.75 | 4.00 | 3.38 | 3.50 |
| 13455846274 | 5.00 | 5.50 | 6.25 | 6.75 | 6.50 | 5.88 | 4.25 | 5.00 | 6.25 | 6.00 | 6.13 | 5.38 |
| 13455846998 | 4.00 | 3.25 | 2.75 | 4.00 | 3.38 | 3.50 | 4.75 | 3.25 | 4.25 | 3.00 | 3.63 | 3.81 |
| 13455847646 | 5.25 | 6.00 | 6.50 | 6.75 | 6.63 | 6.13 | 4.75 | 6.50 | 7.00 | 6.50 | 6.75 | 6.19 |
| 13455944223 | 5.25 | 7.00 | 7.00 | 7.00 | 7.00 | 6.56 | 5.75 | 6.25 | 5.50 | 7.00 | 6.25 | 6.13 |
| 13455950453 | 6.00 | 6.25 | 6.00 | 6.00 | 6.00 | 6.06 | 4.00 | 5.00 | 4.50 | 5.50 | 5.00 | 4.75 |
| 13455952423 | 4.00 | 5.00 | 4.50 | 5.50 | 5.00 | 4.75 | 6.00 | 6.25 | 6.00 | 6.00 | 6.00 | 6.06 |
| 13455953806 | 5.75 | 6.25 | 5.50 | 7.00 | 6.25 | 6.13 | 5.25 | 7.00 | 7.00 | 7.00 | 7.00 | 6.56 |
| 13462008066 | 5.00 | 6.75 | 6.00 | 6.75 | 6.38 | 6.13 | 4.50 | 5.25 | 6.25 | 6.00 | 6.13 | 5.50 |
| 13462008115 | 4.75 | 4.25 | 5.50 | 5.50 | 5.50 | 5.00 | 7.00 | 7.00 | 7.00 | 7.00 | 7.00 | 7.00 |
| 13462009210 | 7.00 | 7.00 | 7.00 | 7.00 | 7.00 | 7.00 | 4.75 | 4.25 | 5.50 | 5.50 | 5.50 | 5.00 |
| 13462009366 | 4.50 | 5.25 | 6.25 | 6.00 | 6.13 | 5.50 | 5.00 | 6.75 | 6.00 | 6.75 | 6.38 | 6.13 |
| 13463027189 | 4.50 | 2.75 | 5.25 | 6.50 | 5.88 | 4.75 | 4.94 | 3.75 | 4.50 | 5.75 | 5.75 | 4.94 |
| 13463034113 | 4.50 | 5.00 | 5.50 | 5.75 | 5.63 | 5.19 | 4.50 | 5.25 | 5.00 | 6.00 | 5.50 | 5.19 |

| | | | | | | | | | | | | |
|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| 13463035134 | 3.75 | 4.50 | 5.75 | 5.75 | 5.75 | 4.94 | 4.50 | 2.75 | 5.25 | 6.50 | 5.88 | 4.75 |
| 13463036716 | 4.50 | 5.25 | 5.00 | 6.00 | 5.50 | 5.19 | 4.50 | 5.00 | 5.50 | 5.75 | 5.63 | 5.19 |
| 13467988876 | 5.25 | 4.50 | 5.75 | 6.75 | 6.25 | 5.56 | 3.69 | 3.50 | 2.75 | 3.75 | 4.75 | 3.69 |
| 13468008340 | 5.75 | 3.50 | 5.50 | 6.50 | 6.00 | 5.31 | 5.50 | 6.25 | 6.50 | 7.00 | 6.75 | 6.31 |
| 13468008749 | 4.75 | 5.25 | 6.50 | 5.50 | 6.00 | 5.50 | 5.00 | 5.50 | 6.00 | 6.00 | 6.00 | 5.63 |
| 13468009099 | 5.50 | 6.25 | 6.50 | 7.00 | 6.75 | 6.31 | 5.31 | 5.75 | 3.50 | 5.50 | 6.50 | 5.31 |
| 13468009824 | 5.50 | 6.25 | 7.00 | 6.25 | 6.63 | 6.25 | 6.00 | 4.25 | 5.00 | 4.75 | 4.88 | 5.00 |
| 13468010001 | 3.50 | 2.75 | 3.75 | 4.75 | 4.25 | 3.69 | 5.25 | 4.50 | 5.75 | 6.75 | 6.25 | 5.56 |
| 13468010783 | 5.00 | 5.50 | 6.00 | 6.00 | 6.00 | 5.63 | 4.75 | 5.25 | 6.50 | 5.50 | 6.00 | 5.50 |
| 13468016437 | 6.00 | 4.25 | 5.00 | 4.75 | 4.88 | 5.00 | 5.50 | 6.25 | 7.00 | 6.25 | 6.63 | 6.25 |
| 13469053374 | 4.00 | 4.50 | 4.75 | 5.50 | 5.13 | 4.69 | 3.75 | 5.25 | 5.25 | 5.50 | 5.38 | 4.94 |
| 13469059877 | 4.75 | 5.00 | 5.25 | 4.75 | 5.00 | 4.94 | 6.13 | 5.75 | 6.25 | 6.25 | 6.25 | 6.13 |
| 13469059950 | 3.75 | 5.25 | 5.25 | 5.50 | 5.38 | 4.94 | 4.00 | 4.50 | 4.75 | 5.50 | 5.13 | 4.69 |
| 13469062024 | 5.75 | 6.25 | 6.25 | 6.25 | 6.25 | 6.13 | 4.75 | 5.00 | 5.25 | 4.75 | 5.00 | 4.94 |
| 13469063698 | 5.25 | 6.75 | 6.75 | 6.75 | 6.75 | 6.38 | 5.50 | 6.50 | 5.50 | 6.75 | 6.13 | 6.06 |
| 13469071085 | 5.50 | 6.50 | 5.50 | 6.75 | 6.13 | 6.06 | 5.25 | 6.75 | 6.75 | 6.75 | 6.75 | 6.38 |
| 13473808365 | 5.50 | 6.00 | 5.75 | 5.75 | 5.75 | 5.75 | 3.50 | 6.00 | 3.25 | 5.25 | 4.25 | 4.50 |
| 13473819847 | 5.00 | 5.75 | 5.75 | 6.25 | 6.00 | 5.69 | 6.00 | 5.50 | 6.25 | 6.00 | 6.13 | 5.94 |
| 13473827063 | 6.00 | 5.50 | 6.25 | 6.00 | 6.13 | 5.94 | 5.00 | 5.75 | 5.75 | 6.25 | 6.00 | 5.69 |
| 13473834065 | 3.50 | 6.00 | 3.25 | 5.25 | 4.25 | 4.50 | 5.50 | 6.00 | 5.75 | 5.75 | 5.75 | 5.75 |
| 13474990888 | 5.25 | 5.25 | 4.50 | 5.50 | 5.00 | 5.13 | 3.75 | 6.00 | 4.00 | 3.50 | 3.75 | 4.32 |
| 13474990067 | 3.75 | 6.00 | 4.00 | 3.50 | 3.75 | 4.32 | 5.25 | 5.25 | 4.50 | 5.50 | 5.00 | 5.13 |
| Mean | 5.56 | 5.54 | 5.52 | 5.72 | 5.92 | 5.82 | 5.65 | 5.45 | 5.54 | 5.68 | 5.90 | 5.82 |
| SD | 0.72 | 0.97 | 0.93 | 0.91 | 0.84 | 0.81 | 0.72 | 0.96 | 0.90 | 0.96 | 0.95 | 0.81 |

Table 50: Dependent variables (3/3; devised by the author)