Sheffield Hallam University

A Sheffield Hallam University thesis

Big Data Marketing Strategy Approaches for Businesses Selling Through Online Marketplace Platforms

Daniel Hawcroft

A thesis submitted in partial fulfilment of the requirements of
Sheffield Hallam University
for the degree of Doctor of Philosophy

October 2021

Sheffield Hallam University   Daniel Hawcroft

Abstract

This research presents new empirical findings from an inductive analysis based on a mixed method grounded theory approach. Insights are presented into marketplace selling, marketing strategy and big data decision making using data from fifty-seven online marketplace seller organizations. The findings and subsequent conclusions were developed using a triangulation analysis, consisting of 1,249 forum posts, fifty-five questionnaire responses and five in-depth semi-structured interviews with marketplace sellers combined with the findings in the literature.

The original contribution to knowledge of this research is a conceptual model for use in formulating marketing strategy when selling on online marketplaces. The conceptual model overcomes the limitations found in the literature and popular traditional marketing strategy models.

The implications of this research span both theoretical and practical domains.
The findings in the theoretical domain lead to the proposition that marketplace sellers are entrepreneurs, big data literate, creative, and seek out novel opportunities for products to sell. Sellers rely on big data analysis and research, obtaining market intelligence through the understanding of this data, experimentation, observation, and monitoring in the market. Big data is used to inform both business and marketing strategy, based around the marketing mix, big data is the foundation for key decisions in these areas. In the practical domain, findings showed that organizational capabilities and scale were enabled by the marketplace through their enhanced services and large customer base. Lastly, the selling environment is highly restricted with limited access to the customer, as such the findings show that sellers do not entice customers through "share of voice" or use traditional marketing messaging. Instead, their marketing strategy and leading tactics are to optimize the search rankings and convert a customer from a viewer to a buyer using a virtuous cycle of positive customer experience leading to key trust indicators that customers look for.

Declaration of Authorship

I hereby declare that:

1. I have not been enrolled for another award of the University, or other academic or professional organization, 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.

5. The word count of the thesis is 77,936.

Name:	Daniel Hawcroft
Award:	Doctor of Philosophy
Date of Submission	September 2021
Faculty	Sheffield Business School
Director(s) of Studies	Dr. Kaushik V Pandya

Declaration of Authorship

Acknowledgements

It takes a family to finish a PhD. I would like to thank my long-suffering family for all their support throughout this last five years. My two daughters, Ezri and Seren I would like to thank for their patience while dad was working on his thesis and particular thanks to my wife Janine for all her hours of listening, reading and providing that much needed sounding board for me to bounce ideas off.

We got there in the end!

This research would not be possible without the 55 sellers who gave up their time to complete the questionnaire and the 5 sellers how devoted time outside their hard day's work to tell me about their rich experiences. To them I extend my eternal gratitude and salute their hard work and entrepreneurship.

To the team at the University, I would like to thank Dr Murray Clark for his guidance and direction at the beginning of this journey, without his initial encouragement I may not have started it. Dr Rory Ridley-Duff who's valuable teaching helped me make sense of research philosophies and finally, thanks to my supervisory team Dr Kaushik Pandya and Dr Alireza Pakgohar for all your constructive feedback, support, guidance and words of wisdom.

Contents

List of Figures

List of Tables

List of Equations

List of Abbreviations

4Vs	Volume, Variety, Velocity, Veracity
5Vs	Volume, Variety, Velocity, Veracity, Value
5Ps	Product, Price, Place, Promotion and People (The Marketing Mix)
API	Application Programming Interface
BCG	Boston Consulting Group
BDAC	Big data analytics Capability
CEO	Chief Executive Officer
COVID19	2019 Coronavirus or Severe Acute Respiratory Syndrome Coronavirus-2 (SARS-CoV-2)
EM	Entrepreneur Marketing
GDPR	General Data Protection Rules
GTM	The Grounded Theory Method
GT	Grounded Theory
KPI	Key Performance Indicator
ONS	Office of National Statistics UK
PEST	Political, Economic, Social and Technological
PLC	Product Lifecycle Model
POS	Point of Sale
PPC	Pay Per Click
RRP	Recommended Retail Price
ROAS	Return on Advertising Spend
SME	Small and Medium sized Enterprises
STP	Segmentation, Targeting and Positioning (Customer)
SWOT	Strengths, Weaknesses, Opportunities and Threats

Chapter 1. Introduction

1.0 Introduction

This chapter aims to give an overview of the background and rationale behind the research and provide a summary of the essence of the research. The chapter will also provide an outline of the landscape of the research covering the three main areas of this research context. 1. Big data, giving a comprehensive overview of the big-data literature, analytics, the use of big data in the decision-making process and the impact and challenges when using big data for marketing purposes. 2. Marketing strategy, traditional marketing models and how suited they are in the online setting, social media marketing and the impact of marketing strategy education has on businesses. Finally, 3. Online Marketplaces, covering the rise of internet shopping, online marketplaces and independent sellers and the environment in which they operate. This chapter will also outline the justification for the research outlining the key rationale and the reason for e this research in this context. Then the research questions and key research aim and objectives will be discussed alongside a definition of the research scope, which clearly outlines the research context which triangulates the subjects of big data, online marketing and online marketplace selling. This chapter will also give an outline of the thesis structure outlining how the research was carried out and the research methodology that was adopted.

1.1 Research Purpose

The Purpose of this research covers two main aims, one is to create a corpus of knowledge built up from a bringing together of the literature and new data from real companies that operate their businesses on online marketplace platforms, in order to examine the nuances of operating in a platform that is controlled by an external provider. The second purpose is to create a model based on theory that is inductively generated from the data produced by this research. The model will aim to address general inapplicability of current strategic marketing theory in companies that operate on online marketplace platforms.

1.2 Landscape: The Rise of Internet Shopping

1.2.1 Internet Shopping

Over the last two decades there has been a significant shift from consumers buying from traditional bricks and mortar stores towards consumers buying their goods online using online retailers. In the UK the online retail in 2021 is now a well-established sector that represents a significant proportion of all retail sales. In August 2010 internet sales accounted for 7.1% of all UK retail sales but by January 2020 this had grown to 20.1% and increased a further 10 percentage points to 30.1% in April 2020 and peaked at 36% in Jan 2021 (Office of National Statistics, 2021) during the UKs COVID-19 lockdown (see figure 1). According to the ONS, in 2019 97% of all adults in age groups below 35 shopped online in the last year "*Adults aged 16 to 24 and 25 to 34 years have the highest percentage of online shoppers in 2019, with 97% of the adults in these age groups shopping online within the last year*" (Office of National Statistics, 2019). In 2020 UK Online

retail growth was 31.2% representing £98.9 billion and its growth is expected to continue to consume the bricks and mortar sales, "*Looking forward, we expect online to continue to grow in double digits through to 2025 at which point we forecast the market will be near twice the size of 2018 at £134.8 billion*" (Mintel, 2020).

Figure 1: UK Internet Sales as a Percentage of Total Retail Sales (ratio) (%)
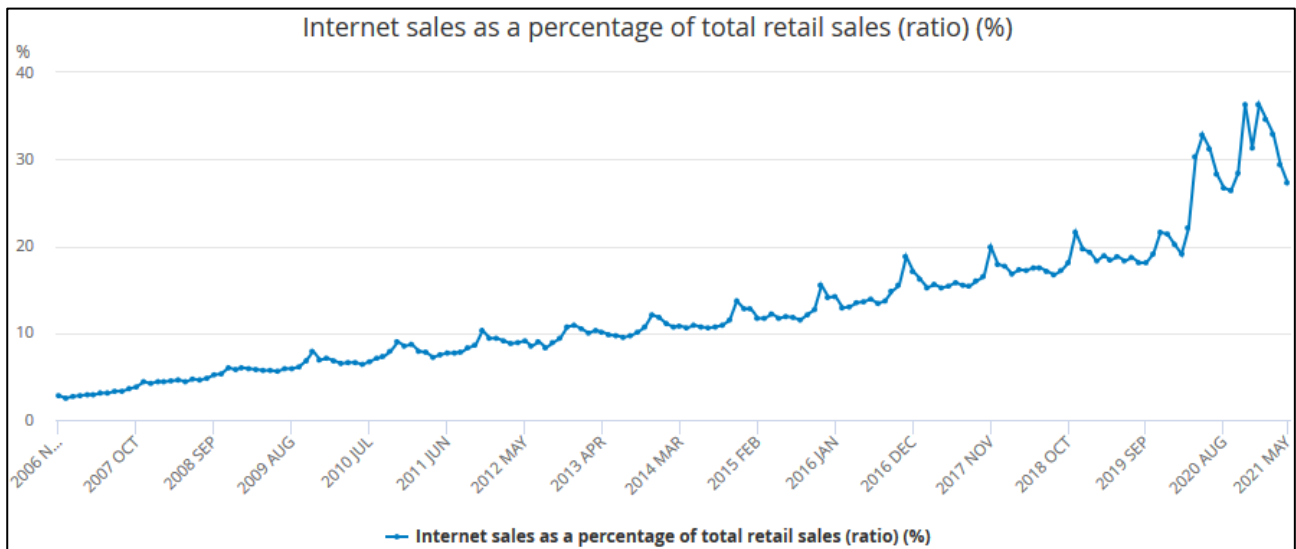
Source: ONS Retail Sales Index time series (DRSI) 2020 (Office of National Statistics, 2021)

1.2.2 Online Selling Trends

Online retail has been growing rapidly from just short of £40 billion in 2014 doubling to almost £98.9 billion in 2020. Mintel forecasts this to be £134.8 billion by 2025.

Figure 2: All Online Sales and Forecast, 2014-24
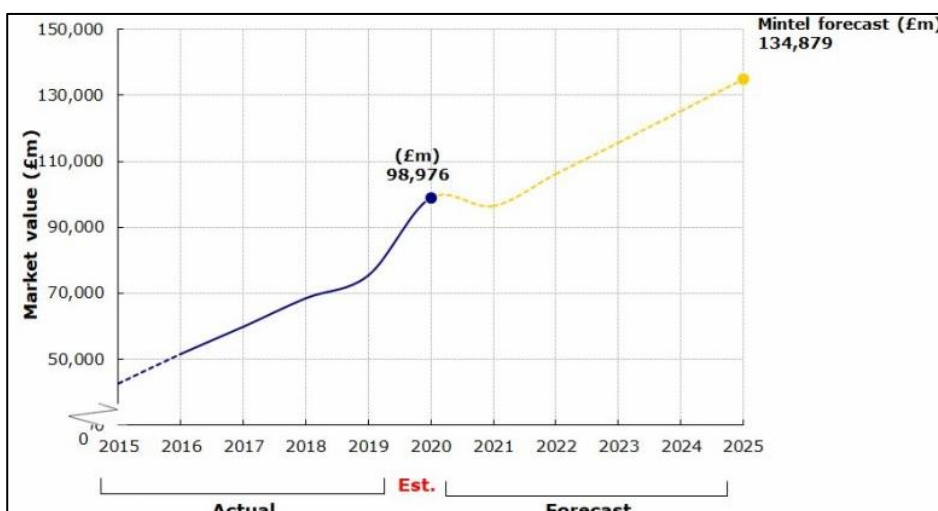
Source: (Mintel, 2020)

The growth seen in the online retail sector during 2020 was 31.2% accounting for £98.6 billion and 20% of all retail sales in the UK, according to Mintel (2020). Over half (53%) of the online sales are from online stores and the remainder from store-based bricks and mortar retailers.

1.3 Landscape: Online Marketplaces

1.3.1 Composition of the Market

In the UK the largest companies that provide online marketplaces are outlined in table 1. It is clear from the numbers that Amazon and eBay dominate this sector having over 94% of the share of the UK customer visits per month in 2019.

Table 1: The largest online marketplaces in the UK 2019

Rank	Type	Name	Region/Country	Product Category	UK Visits/month	%
1	Marketplace / Retailer	Amazon	Global	General	416.9M	59%
2	Marketplace	eBay	Global	General	244.9M	35%
3	Marketplace	Etsy	Global	Arts, Crafts & Gifts	19.4M	3%
4	Marketplace / Retailer	Wayfair	North America, Europe	Homewares	16.3M	2%
5	Marketplace	notonthehighstreet	UK	Arts, Crafts & Gifts	7.4M	1%

Source: (webretailer.com, 2020)

Amazon: Amazon is both a retailer and a marketplace that offers sales of its own goods and allows independent sellers to use the Amazon website to list and sell their products. Amazon seller sales account for 60% of all sales on the UK website with Amazon taking seller fees for listing the items.

In 2019 Mintel found that nine in ten (86%) of UK customers shopped on Amazon and four in ten (39%) of them have access to Amazon Prime, with just over a quarter (26%) personally being members and a further 13% sharing access through someone else's account. Scaled to a national level, this places Amazon Prime membership in the UK at around the 15 million mark. This regular customer base puts Amazon UK in the top position, (Mintel, 2020).

Amazon also offer other services to sellers, such as warehousing, fulfilment of orders and distribution services which all incur additional service charges to sellers. In 2019 Amazon had 281,257 active sellers on the UK website according to Marketplace Pulse (2019), this was an increase of 18.4% since 2018, Mintel reports that globally sellers represent 58% of all Amazon sales (Mintel, 2020). According to Amazon seller services in 2016 "*Independent research shows that 74,000 people are employed by UK sellers as a result of their business selling on Amazon Marketplace*" (Amazon.com, 2017).

eBay: In contrast to Amazon, eBay is a marketplace only. 100% of all products listed are from independent sellers. eBay offer a range of selling formats both online-auction and a number of immediate buying options, it also allows a number of item conditions from new to used items. eBay can offer seller services such as customer collection points, options for customers to collect from sellers locally and options of payment protection and dispute resolution through its payment company PayPal. In 2019 eBay sales were £13.5 Billion in 2018 (Mintel, 2020). eBay's sellers range from individuals 'selling-from-home' to large multinationals, who use the platform as an outlet. According to (Retail-week.com, 2019) eBay UK had over 200,000 registered sellers in 2019.

Etsy: Etsy is a marketplace that is focused on handmade, craft, art & design and vintage items and 100% of the items listed are from independent sellers. The site has no warehousing or distribution facilities, instead the independent retailers store and ship the products to the customers themselves, whilst Etsy take commission for the sale. Etsy has the third largest market share in the UK for online marketplace sales with 3% and they attracted 19.4 million visitors per month in 2019. Its unique selling point is that they offer a large range of unique and collectable items as well as more handmade and locally designed products than their competition.

Wayfair: Wayfair is a dedicated home store selling furniture, lighting, décor, and various items that can be found in the home. Their business model with regards to partner sellers is different from the other retailers. Wayfair do not take commission or seller's fees from their sellers, instead they operate a wholesale model, buying the sellers product and setting the retail sale price themselves. The seller then acts as a drop shipper sending the items directly to the customer when an order is placed. In 2019 the UK site attracted 16.3 million visits per month and has a 2% market share. Wayfair also acts as a seller on Amazon.co.uk.

Not on the High Street: Not on the High Street is a marketplace that is dedicated to independent sellers that sell unique and bespoke items, these are often handmade items, similar to Etsy. The selling format is direct sales, with no auctions. The items can often be customized with several options to add customization such as names, slogans, dates, and personals additions such as photographs. This is the unique selling point on this marketplace that Amazon and eBay both have attempted to replicate. According to (webretailer.com, 2020), Not on the High Street have a 1% market share with 7.4 million visits per month.

1.3.2 Independent Sellers

Researching the number of UK sellers active on each marketplace has proven difficult to ascertain the exact number of sellers that operate on each marketplace, as the major players do not make this information public. Table 2 below shows what can be determined from the information that is in the public domain. In

2017 Amazon and eBay appeared before the UK public account committee to discuss Tax and VAT avoidance and fraud amongst sellers where the figures of 288,000 sellers for amazon and 200,000 for eBay were reviled. eBay may have far more registered sellers but are not active professional sellers but are more occasional home sellers who sue the site infrequently to sell second had items.

Wayfair do not make their number of partners known although they do display the number of brands they sell which gives a view of the size of their partnerships.

Table 2: Approximate Number of UK Sellers using Online Marketplaces:

Website	Approx. Number of UK Sellers	Source
Amazon.co.uk	288,000	In 2017 (Dawson, 2017) (According to Public Accounts Committee hearing)
EBay	200,000 *(professional sellers)*	In 2017 (Dawson, 2017) (According to Public Accounts Committee hearing)
Etsy	220,000	In 2019 (Fedorenko, 2019)
Wayfair	5,000 *brands*	In 2019 (wayfair.co.uk, 2020)
Not on the High Street	5,500	In 2019 (MacDonald, 2019)

The sellers using these online marketplaces use them for two main functions. One being the use of their website, which is easier and cheaper than running one's own website and easier to attract and access a large potential customer base to. Secondly the services that they offer, for example Amazon offers warehousing and shipping services and eBay offers payment services through its PayPal service and distribution and collection benefits such as click and collect. Not on the high street offers a range of ways that customers can make their items personalized such as uploading photographs and customizing messages and text on items. All these services mean that the seller has the flexibility to operate their business from existing premises or from their home. They can expand their customer base from local to national and even international without having to add real estate or additional infrastructure to their business. The sellers can even choose to sell on one or all of these marketplaces opening them up to the wide customer base rather than a small corner of it.

1.3.4 Brick and Mortar Business vs Online Businesses

There is no doubt that the rise in online sales has hit the traditional bricks and mortar and 'High-street' sales sector. In 2019 PwC reported a net decline in stores of 1,234 between 2018 and 2019, citing the "*restructurings and the online migration of shopping and services*" as the reason behind the increase in closures. (PwC, 2019). The annual study of small and medium businesses (SMEs) the UK governmental Department of Business, Energy and Industrial Strategy (2020) reported that in 2019, 49% of the survey respondents used web-based technology to sell to customers or to manager their businesses. This was up

from 39% in 2009 annual report. Two of the largest players in the online sector eBay and Amazon have both attempted to gain a presence on the high-street, opening physical stores in high-street locations that support local sellers. eBay, working with Wolverhampton council opened a physical store in 2018 that aimed to help local sellers expend their businesses online (eBay Inc., 2018). In the similar vein, Amazon opened a series of 'clicks and mortar' stores in Manchester and Sheffield with the aim of helping sellers experience a chance to sell on the high street (Amazon Inc., 2019).

1.3.4 COVID19 Impact on Online Sales

As seen in Figure 1, UK online sales grew significantly during the 2020 COVID19 pandemic lockdown. In 2020 pre-pandemic growth in online sales was at the level of 6.5% growth in February compared to 73.4% growth in the month of April 2020. This research was conducted both before and after the surge in growth. In the first stage of this research, data was collected via questionnaires in 2019. The second part of the research was conducted in late 2020 after the first UK lockdown in the second quarter 2020 into early 2021. It is unknown whether the surge in internet sales during 2020 contributed to any irregularities in the data that was collected, but it is important to acknowledge that during the time of the research there was a significant shift in the macro environment, which positivity impacts online sales. During the second phase of this research specific questions were asked to participants during interviews to ascertain if the pandemic has had any impact on the seller's experience using online marketplaces (positively or negatively). The results of these questions will be discussed in chapters six and seven.

1.4 Landscape: Marketing Strategy

Marketing and marketing strategy, particularly in higher education has championed a number of popular marketing models covering everything from the macro environment, the positioning of the organization in the marketplace and marketing strategy and tactics. Considering the subject of this research the 'actors' in the online marketplace environment (as discussed in the previous section) are in most cases, small businesses. In the subject of marketing strategy there are a couple of topics that have relevance; traditional marketing, in which Kotler & Keller (2019) presents traditional marketing models such as; The Marketing Mix (5Ps of Marketing), The Boston Consulting Group Matrix, Ansoff's Matrix, Porters Generic Strategies, Product Lifecycle (PLC) Model and the model that allows the user to produce a summary of their macro and micro-environment known as SWOT / PEST analysis. The second relevant area covers the concept of entrepreneurial marketing which differs from traditional marketing in a number of ways. Stokes, (2000) describes the key differences; entrepreneurial marketing is led more by innovation, opportunity identification, EM has a strategy of attracting new customers and new opportunities through a bottom up and targeted marketing strategy which is led by a creative and innovative use of data such as predictive analytics. Traditional marketing, in contrast is; more customer-centric and has a top down approach to strategy linked to the marketing mix and traditional models. Traditional marketing communications tend to be mass marketing communications which are derived by analysis of customer data, using traditional

marketing data gathering techniques for example mailing lists and analysis techniques through tools, such as, customer relationship management (CRM) systems.

The environment is also changing, social media marketing strategies are becoming more and more important to compete and newer marketing techniques such as social media influencer marketing (via product endorsements) are becoming ever more popular. Research has shown that social media marketing spend rose significantly from £27 million in 2011 to £3.04 billion in 2018 (IAB UK; PwC, 2019). There has also been a shift in the marketing and data capabilities in organizations of all sizes, organizations are now requiring more analytically skilled employees in order to add value in the big data era. It can be argued that the UK higher educational offering in the subject of marketing, is varied on providing the analytical aspect required of graduates. Nunan & Di Domenico (2019) found that the courses they evaluated were split into three categories, two of which focused on the marketing and management areas using written reports or dissertations as a method of student performance evaluation, thus lacking in analytical skills as an output. With only one category offering a more applied technical course that used statistical programming and production of dashboards as an evaluation method. The approach taken to marketing by the online marketplace seller is an area that there is very little research (as the gap analysis in Chapter 2 will show), therefore it is difficult to determine if traditional marketing models work in this environment, or if a more entrepreneurial approach to marketing is more appropriate. The selling environment is highly restricted as to what the seller is able to do in terms of marketing tactics and new tactics, such as product sponsorship and favored search results that are not featured in traditional marketing models. This context is an under researched area and gaps exist that can be explored.

1.5 Landscape: Big Data

Recent technological advances in internet-based purchasing have led to an era of big data, especially in the area of social media and online retailing. This advance has led to the generation of vast quantities of data that in most cases are too vast to store.

Big data can be defined as "*high-volume, high-velocity and high-variety information assets that demand cost-effective, innovative forms of information processing for enhanced insight and decision making*" (Schaeffer & Olson, 2014). Big data is typically described alongside the notion of the 5-V's, Volume, variety, veracity, velocity and the most important V being Value. The big data industry in 2020 was estimated to be worth at an estimated $56 billion (Statista, 2020) with projected growth up to $103 billion by 2027. Since 2016 big data has taken the limelight in a way never seen before, in its role in influencing elections and referendums across multiple countries. In 2018 the Guardian newspaper revealed that Cambridge Analytica, who was a data science company that specialized in political campaigning, came under global scrutiny when it was revealed that according to whistle blower Christopher Wylie (an ex-Cambridge Analytica employee) they harvested big data from over 50 million Facebook users worldwide in order to target political advertising to users Cadwalladr & Graham-Harrison (2018). Cambridge Analytica used what

is known as "psychographic profiling" techniques by using the data they harvested to create personality profiles for each user, targeting those who could either be swayed politically or persuade non-voters to vote in elections. The Guardian also revealed that Cambridge Analytica worked for the US presidential candidate Donald Trump during the 2016 US presidential campaign and allegedly for the 2016 Brexit campaign (Leave.EU). This scandal has led to significant questions being asked about the privacy of big data, leading to significant governmental inquiries in the UK and US, which has focused on the use of personal media data to use in targeted political advertising. Psychographic profiling and the use of algorithms to create more targeted marketing messages or to tailor search results and product recommendations is now a very common technique used by websites and big-tech companies (Bing, Google, Facebook, Amazon and Apple). Big data is the engine that is fueling this more tailored approach.

1.6 Identified Research Gaps

Existing literature in the field of strategic marketing and use of big data lacks focus on businesses selling on online marketplaces, it instead focuses on traditional business selling platforms and/or online selling on own websites. The big data literature assumes that businesses collect their own data and is focused on providing insights into successful technical setup of big data collection and analytics within the business as well as providing advice on how to generate value from the data itself. The literature lacks insights into platforms where data is collected and owned by an outside organization, in this case the online marketplace provider. In the area of marketing, the literature assumes that the business has the resources to have a commercial marketing function or capability, which leaves the application of the academic theory difficult when considering small businesses selling on online marketplaces. These sellers may not have their own dedicated marketing functions or ability to collect their own data, when using the online marketplace to sell products. Instead, they are reliant on data services provided by the third-party and their own small workforce to own the marketing stagey for the business. The outcome of this research will be to fill this gap in the literature with data and insights dedicated to this growing number of businesses and provide specific academic model that is applicable in this context. The next section outlines a number of justifications when considering the rationale for this research.

1.7 Background Rationale for the Research

Initial examination of the literature that is outlined in the next chapter along with the theoretical gaps discussed in this chapter has motivated this research. The rationale that underpins this research can be summarized as follows, each are discussed at length in chapter 2:

1. Lack of research in this specific area.

   The literature outlined in chapter two has shown that there is a lack of research that exists in the area of big data service provision (by the marketplace platform providers to their sellers), how the big data

services are leveraged by independent sellers and whether the use of the data provided drives or has limitations on business performance.

2. Lack of applicable marketing theory.

The traditional marketing theory and the popular models produced and taught in academia have many general applications in the wider retail sector, in environments that the businesses can influence and control. However, the academic theory fails to address or provide recommendations to businesses selling on marketplaces that they either cannot control or have little influence over. There is room for more targeted academic frameworks for businesses who operate in such environments.

3. Lack of research into the relationships between the marketplace provider and sellers.

The inter-relationships between the online platform provider and the independent seller have yet to be examined in this context in the wider literature. The seller has various degrees of dependency on the online marketplace which could make or break their business. The seller in many cases could be more vulnerable to "market" forces (or marketplace forces in this context) than they are when operating in the open external market. Several negative experiences have been documented in media sources and even cited in official US Congressional inquiries (US House of Representatives, 2020), where sellers have been heavily impacted by decisions the marketplace has made. There is a lack of academic research into this relationship.

4. The experience of the seller community is often discussed in the mainstream media and even in 2020 in a US congressional review (*Online Platforms and Market Power, Part 6: Examining the Dominance of Amazon, Apple, Facebook, and Google*). The inference found in the media is that the seller experience is negative and that the marketplace provider can be an exploitative force. The seller experience is not well documented in the literature and may not be accurately represented in the main-stream media.

5. Gap between academic theory and real-world practice.

Finally, one of the gaps seen is the disparity between the academic theory and real-world practice in the area of marketing strategy. There are varying degrees of applications of academic models and frameworks with regards to big data or marketing strategy within smaller organizations.

1.8 Research Scope

It is proposed that the research be targeted in the unexplored areas of decision making and marketing strategy using big data. This will allow the exploration of the unknown area from the seller's perspective, this is with the objective that a model be created from the data that may provide a more comprehensive insight into successful marketing strategies for marketplace sellers using an online marketplace platform.

Figure 3: Visualization of the Research Scope
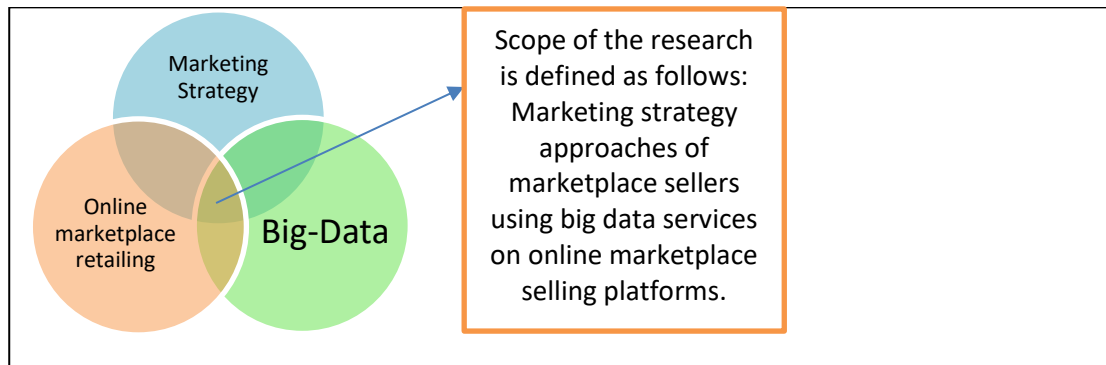
Source: The Researcher

The scope of this research will concentrate on the small and medium size companies who use platforms such as eBay and Amazon to sell their products using the marketplaces that these companies provide. The research scope will sit within the intersection of these three areas. The purpose of the research is to explore the big data experience of marketplace sellers and how these big data service provisions have influenced their own marketing strategies. The research will expand to seek knowledge concerning their business outside the online marketplace and how the experience within that environment has (if at all) influenced the marketing approaches outside

1.8.1   Definitions of Key 'Actors' in the scope of this research

This research is focused on the experience of the e-marketplace seller (as defined below) and their experience with regards to big-data, marketing and decision making as a seller on e-marketplaces. This research will not focus on the capabilities / decisions and actions made by the e-marketplace companies unless these affect the seller and their experience of selling. Below is an outline of what is in-scope and out of scope for this research.

In scope: There are three main actors in the context of this research. These main actors are outlined below.

The Marketplace: The marketplace, often also called an e-marketplace, can be defined as; "*an E-marketplace is a type of e-commerce site that connects sellers that is people that provide products or services with buyers that is people looking for products or services to buy*" (Santoso & Napitupulu, 2018). The marketplaces that have been discussed in this research are companies such as Amazon, eBay, Etsy and Not on the High Street, all of whom operate both in the UK and internationally.

The Seller: Sellers are referred to in the literature as either 'sellers', 'marketplace sellers', 'third party sellers' or 'independent sellers. Sellers will be referred to as either 'sellers' or 'marketplace sellers' in this document. Sellers are third party companies that use these marketplaces as an outlet to sell their products.

Santoso & Napitupulu (2018) discuss the seller as being "*one of the main components of the e-marketplace business, with many e-marketplace options available, sellers will have the freedom to choose and can easily switch to another e-marketplace*" the sellers participating in this research were small independent businesses (Small as defined by the (European Commission, 2003), organizations with less than 50 employees and turnover less than €10M) and operated across multiple marketplaces.

Big Data Provider: There are third party companies that use big data from the marketplaces, these companies' package and provide big data services via their online applications. These companies offer these big data services to marketplace sellers for a monthly or annual subscription. The applications have the capability to provide the user (the sellers) with big data analytics allowing them to research, create insights and draw upon market intelligence in order to inform their marketing decision process. The main companies that provide this service in this research are; Helium10 an application provided by Assembly (A software company) and JungleScout an application founded in 2015 to help marketplace sellers. Both applications access their big data via the marketplace backdoor API interface and a licensed to offer this service to the seller communities.

Out of Scope: This research <u>does not</u> cover or explore the use of big data by any of the platform providers (Amazon, eBay, Etsy etc.) for use in enhancing their offering to their customers. Big data decisions taken by the marketplace provider such as Amazon are not in scope for this research as the researcher does not have access to these companies in order to gather data exploring their marketing decision making process. These are usually closely protected company practices kept within the confidence of the company's employees. In the case of Amazon; being both a seller and a platform provider. Their marketing decisions and behavior as a retail seller <u>is not</u> explored in this research beyond how its competitor behavior affects its marketplace sellers and how that behavior / interaction has been reported in the literature.

1.9 Research aims and Objectives

In order to attempt to address the main gaps outlined in the previous section addressing rationale, a series of research questions and aims are outlined below. These will serve as the framework for the research project and keep the research focused on achieving the aims outlined against each research question.

To begin with, a literature review "guiding question" was devised, to keep the literature review focused on the research context, allowing a narrowed review of the relevant literature. The outcome of the literature review can be found in Chapter Two.

Literature Review RQ: What are the defining principals, key characteristics, academic concepts and current challenges of using big data and online marketing strategy, focusing on the challenges faced by the online marketplace sellers, found in the current literature?

After the literature review was conducted the following research questions emerged from the findings to provide the foundation, guidance and focus for the research.

RQ1:   To what extent does the usage of big data drive marketing strategy decisions of online marketplace sellers using online marketplace platforms?

Aims: To explore how the data can drive strategic decisions around, products, pricing, promotion and inventory placement.

RQ2:   What are the characteristics, nuances, benefits and limitations of the online marketplace selling environment?

Aims: To explore the marketplace selling environment and how its structure as a unique environment affects the marketing behavior of its sellers and their modus operandi.

RQ3:   To what extent are traditional marketing models appropriate to marketplace selling and do they aid marketing strategy for online marketplace sellers?

Aims: To explore whether popular traditional marketing models and tools are appropriate for formulating marketing strategy in this environment.

RQ4:   To what extent do online marketplaces dominate or have control / influence over seller behavior or have impact on seller businesses?

Aims: To investigate if evidence is found of media and government reports of marketplace control and influence having negative impacts on sellers. To explore the interrelationship between marketplace provider and seller.

The literature in this specific area of marketplace selling is sparse but is in abundance in the other two wider concepts of big data and strategic marketing. These research questions allow the focus of the research to be narrowed and will bring insight into this previous relatively unexplored area.

1.10   Research Methodology

This research will be pragmatic in its approach. The chosen methodology within this sphere will be a grounded theory methodology. Pragmatic approaches examine human behavior from the perspective of the actors in the research frame. They do not impose 'external realities' on to internal behavior in order to explain it, Johnson & Duberley, (2000) say that *"researchers should analyze human behavior in an organization from posteriori understanding – a process called Verstehen and the deployment of reputedly qualitative methods of data collection."* (Johnson & Duberley, 2000) as such this research examines the research landscape from the perspective of the sellers who sell on online marketplaces. The grounded

theory approach is defined as "*the discovery of theory from data systematically obtained from social research…[its] basic position is that generating grounded theory is a way of arriving at theory suited to its supposed uses*." (Glaser & Strauss, 2009, pp. 2-3). This meaning that the theory is derived inductively through the data gathered during the research.

A mixed qualitative and quantitative research design was used, with the main data being collected through a questionnaire gathering the quantitative data. There were a number of and categories generated from the questionnaire discussed in chapter 4, which were then explored in a deeper way gathering qualitative data via follow-up semi-structured interviews. The data analysis was conducted in an inductive way which resulted in a model that conceptualizes the strategic marketing and big data approaches taken by real organizations operating on marketplace platforms. This model has been designed to have practical application and can be adopted by organizations operating in this environment. The model addresses some of the lack of academic research and understanding in this field and can be used to make generalizations about existing future situations covering the same and similar contexts

1.11   Contribution to Knowledge

The contribution to knowledge that this research will achieve is discussed in detail throughout each chapter. The outcome of this research is a model / framework which was developed based on the empirical data and evidence gathered from real organizations who use online marketplaces to sell. The model/framework conceptualizes the strategic approaches taken, outlining how different approaches can drive business performance with measurable qualifications. The model will address some of the lack of general applicability of current academic strategic marketing models and can be used to make generalizations about organizations operating in this environment or in similar contexts. It is also expected that the newly generated theory can be used to confirm some of the more general theories applicable to big data led marketing in the wider context, as well as challenge or confirm some of the pre-conceptions and assumptions that are made in some of the discussion based academic literature, concerning the experience of marketplace sellers using online marketplace platforms.

1.12   Thesis Structure

In order to present this research in a structured and logical way, this thesis has been organized into seven distinct chapters.

Chapter one: The current landscape is discussed and the rationale for the research. Including an overview of the online marketplace macro-environment as well as an overview of the key actors in this growing market. After the rationale for the research is presented, the research questions, aims and objectives are outlined.

Chapter two: The key literature in the three main areas relating to the research context are discussed. These are; big data, online marketing and online marketplace selling, which includes an overview of entrepreneurship and how it influences this sector.

Chapter three: Discusses the research-philosophy that underpins this research. The research methodology and research design are also presented. The rationale behind the chosen philosophy, methodology and design are discussed with an evaluation of each presented.

Chapter four: The approach to the data collection and analysis are discussed as well as the justification for the sampling numbers and sampling frame that was applied to the research.

Chapter five the first half of this chapter gives an overview of the empirical results of this research from the questionnaire and provides justification for the themes discussed with the sellers in the interviews. The second half of the chapter gives an overview of the qualitative results from the interviews and a triangulation of the collected data combined with the findings in the literature, is presented

Chapter Six comprises of a discussion of the main themes of this research, using a triangulation of the two datasets discussed in chapter five and six, combined with theory seen in the literature discussed in chapter two. Finally, the conceptual model, which is the main contribution to knowledge is presented and discussed.

Chapter Seven is the final chapter and presents the final model that the research produced inductively, the chapter also gives a review of the research implications, limitations, lessons that were learned and recommendations for future research.

The research period: The research included in this thesis was conducted in the period 2016-2021 in the United Kingdom (U.K.). The U.K. based research participants (sellers) were contacted via email or telephone to participate in the questionnaire (which they completed electronically), and the semi-structured follow-up interviews were conducted via online video link due to the 2020-2021 COVID19 pandemic precautions on social distancing and travel. This work mainly focuses on the lived experience and opinions of the research participants / sellers with the main themes being generated inductively out of the data they provided.

Chapter 2. Literature Review

2.0 Introduction the Literature Review

In order to provide a concise overview of the current literature and identify the research gaps present in the field of research, a comprehensive literature review was conducted. The literature review is split into three sections, the first covers the area of big data and gives an overview of the literature concerning big data, big data analytics, how big data generates business value and how big data can be used to drive decisions. The Big data literature review will not cover the technical or information technology side of this subject that is so common in the overall big data literature. This side of big data is out of scope for this research as the technological capabilities involved in the research context is in the hands of the marketplace provider, not in the hands of the marketplace seller. The second section concerns the area of marketing strategy covering the popular traditional marketing models that are seen in academic literature, the online marketing models including social media marketing. The final section covers the area of online marketplaces. This spans the area of online sellers in the form of entrepreneurs, marketing considerations such as brand awareness, customer satisfaction and aims to draw links into the other two subjects of big data and marketing to give a summary of the gaps in research when looking through the lens of marketplace selling. The chapter gives an overview of the gaps in the literature in support of the rationale for conducting this research.

Literature Review Guiding Question

As discussed in section 1.9, the literature review was guided by the following question in order to keep the review structured and focused in the most suitable area. The literature review research question helped define he research frame and shaped what to include and exclude from the scope of the research.

Literature Review RQ: What are the defining principals, key characteristics, academic concepts and current challenges of using big data and online marketing strategy, focusing on the challenges faced by the online marketplace sellers, found in current the literature?

2.1 Big Data

This section will provide a comprehensive overview of the big data literature covering; a big data overview including key definitions, big data analytics, the use of big data in the decision-making process and the impact and challenges when using big data for marketing purposes.

2.1.1 Big Data: An Introduction to Big Data

Since 1992 the amount of data transferred via the internet has seen phenomenal growth, in 1992 only 100 gigabytes per day of data was transmitted over the internet (Cisco, 2017), now personal storage devices have ever increasing capacity to store more data than was transmitted over the internet in the early 1990s.

There are many sources which forecasted the exponential growth of data towards 2020 and beyond, but the consensus in the early 2010s was that data in the digital universe was forecasted to grow tenfold from 4.4 zettabytes in 2013 to 44 zettabytes in 2020, this forecast was confirmed in 2020 "*The digital universe consists of an estimated 44 zettabytes of data.*" (Gutierrez, 2020). This transmission, storage and collection of mass data concept is known as big data. Agrawal (2014) describes big data as "*large in quantity, complex and typically continuously generated*".

Big data is now used in a variety of innovative ways, from collecting data on customers in order to improve business offerings to its use in sports to give real time telematics to coaches and analysts which they use to improve team and individual performance. The section below will give an overview of big data subject area including a summary of key definitions and statistics.

2.1.1.1 Definitions

The online environment has been synonymous with data collection due to its digital foundations. It is much easier for an online retailer, a website or social media platform to collect an enormous amount of data from its users. Online retailers have used this data to gain competitive advantage "*Big Data giants like Tesco, Walmart or Amazon use every tiny piece of data that may very well be valuable to some extent or another*" (Marr, 2016, p. 24). In the case of social media, they use this data for targeted marketing purposes, generating a revenue stream from what is a free to use service. For example, in 2020 the total number of social media uses reached 3.96 billion (Statista Ltd, 2020) with Facebook, Instagram and Twitter being the largest three platforms. These platforms are free, and users incur no subscription fees. The platforms track and monitor internet cookies from the user's device and the platforms algorithms show the most appropriate advertising to the user, based on what it thinks the user wants to see (pull marketing). Using the same simple process, a retailer can target a specific audience for their advertising (push marketing) based on what they would like their targeted demographic to see. From the online retailer perspective, the retailer can gather data from their customers on things such as; what listings they are viewing, the way the user is navigating the website, how long users spend on what parts of the webpage, the promotions that the user is most likely to take up, the influence of reviews and much more. The retailers then use this data in a number of ways, such as more specifically targeting marketing messages at individual customers, and use of the data to improve their services and offerings. This data gathering is happening at an ever-accelerating rate, table 5 shows a number of key statistics that culminate in the size of the data being gathered is over 50,000 gigabytes per second in 2018 (IBM, 2018).

Below table 3 and table 4 show some key big data definitions that are seen in the literature.

Table 3: Big data Definitions

Source	Definition
(Mazzei & Noble, 2017)	Big data–large, diverse, complex, and/or longitudinal data sets.
(Elgendy & Elragal, 2016)	Datasets that grow so large that they become awkward to work with using traditional data management systems.
(Lovelace, Birkin, Cross & Clarke, 2016)	Big data as newly available information that is high in volume, velocity, and variety.
(Akter & Wamba, 2016)	Massive amounts of various observational data which support different types of decisions.
(Bhadani & Kotkar, 2015)	Big data refers to the datasets whose storage capacity is beyond the ability of traditional database software tools for capturing, storing, managing, and analyzing the unstructured data.
(Agrawal, 2014)	big data is usually large in quantity, complex and typically continuously generated.
(Gartner, Inc, 2017)	Big data is high-volume, high-velocity and high-variety information assets that demand cost-effective, innovative forms of information processing for enhanced insight and decision making.
(Kaisler, S; Armour, F; Espinosa, J.A & Money, W., 2013)	Big Data" is defined as "the amount of data just beyond technology's capability to store, manage and process efficiently.

Table 4: Big data academic Concepts

Concept	Source(s)
4 Vs - Volume, Variety, Velocity and Veracity	(Schroeck, Shockley, Smart, Romero-Moralesm & Tufano, 2012) **an IBM study** (Davenport, Barth & Bean, 2012) (Chopra & Madan, 2015) (Ziora, 2015) (Lovelace, et al., 2016)
3 Vs - Volume, Variety, Velocity	(Fan, S; Lau, R Y K & Zhao, J L, 2015) (Bhadani & Kotkar, 2015)
5 Vs - - Volume, Variety, Velocity, Veracity and Value	(IBM Corp, 2015)
Three main characteristics: the data itself, the analytics of the data, and the presentation of the results of the analytics that allow the creation of business value in terms of new products or services.	(Akter & Wamba, 2016)

The literature describes Big Data in a number of different ways the typical characteristics have been conceptualized and summarized into categories the most commonly cited are volume, variety, velocity and veracity.

Akter & Wamba (2016) define ***volume*** as referring to the quantities of big data, which is increasing exponentially. Data is collected in huge volumes which is often beyond the capability of more traditional, less technically able, bricks and mortar businesses. Traditional businesses are limited to what customer data they can collect. Data tends to be limited to point of sale (POS) data taken from in-store terminals, data taken from customers manually or as a direct result of the sale; such as geographic data, email

addresses, clothing sizes and data generated from loyalty cards. Online retail is open to so many more data points than physical stores due to the technology platform on which the sale takes place, more detailed customer behavior data can be collected online whilst the customer is unaware.

The data collected is concerning a *variety* of sources coming in different forms, including traditional databases, images, documents, and complex records and relating to a number of user behaviors, in a variety of formats from binary data to videos, emails, photos and sensory data relating to buying behaviors and website or app usage and voice activated services, Ziora (2015). Data can be structured or unstructured in nature. Structured data is data which can easily be stored in traditional formats such as databases in pre-defined columns or in a uniform structure. Unstructured data is the opposite and cannot easily be stored and indexed this is data such as email conversations, social media posts, video content, photos, voice recordings, sounds etc. (Marr, 2015, p. 61). In reality the types of data that can and is collected is vast and new ways of collecting data is becoming more sophisticated as new technologies emerge and machine learning becomes more complex.

Velocity refers to the speed of which the data is collected, analysis conducted by the International Data Corporation shows that the expected growth in data volume was 44 zettabytes (4.4×1022 bytes) in the year 2020 they estimate that this is approximately ten times larger than it was in 2013 (International Data Corporation, 2014). According to Chopra & Madan (2015), data is streaming in at unprecedented speed and must be dealt with in a timely manner. Processing should be fast and quick and time-sensitive, reacting quickly enough to deal with data velocity is a challenge for most organizations.

Retailers have to contend with the *veracity* of data and often have to apply algorithms and machine learning to clean data, structure data, make predictions using trends in wider data and interpret data. This is where the data is either discarded, structured or used in machine learning to produce additional data such as forecasts. Lovelace, Birkin, Cross and Clarke (2016) discuss veracity in terms of the degree of truthfulness associated with a large data set. Large data sets sometimes lack the quality assurances associated with smaller data sets taken from official sources.

The final V which is *value,* this is used less frequently in the literature than the other four. This value concept is how the retailer use the data to leverage value through business benefits, competitive advantage and customer insights which ultimately generate financial value for the retailer. Miller & Mork (2013) discuss this value element as the final part or benefit of the big data 'value chain'. The next section will focus on this value element of big data.

Table 5: Key Statistics 4 Vs of Big Data

Characteristic	Statistic
Volume	90% of today's data was created in the last 2 years
	Every Day we create 2.5 Quintillion bytes of data this is enough to fill 10 million blue ray discs
Variety	80% of data growth comes from video, pictures and document
	90% of all data is unstructured - i.e. social media posts, email, customer contacts etc.
Velocity	Every 60 seconds there are: 72 hours of video uploaded to YouTube 216,000 uploads to Instagram 204 million emails sent
Veracity	1 in 3 businesses do not trust information they use to make decisions
	Poor quality data costs $3.1 billion each year to US economy

Source: Adapted from (IBM, 2018)

Table 5 shows one interesting statistic, that 90% of today's data was created in the last 2 years inferring that the growth of big data has been exponential in recent years. However, the table also shows that 90% of all the data is unstructured meaning that companies wishing to harness its value have to become more innovative in their data storage and capture as well as its interpretation. Businesses are now turning to algorithms to assist in the interpretation of their data to turn this into business value. These algorithms can bring together a number of pieces of data to formulate more structured data and insights. For example, Netflix bring together eight pieces of different data to drive its recommendation algorithm (1. ratings, 2. searches, 3. Dates and times a program is watched, 4. Devices used, 5. Types of show watched on each device, 6. When a program is paused or stopped, 7. Portions of programs that are re-watched / rewound or shows part watched, 8. Whether credits are skipped). Each data point will tailor its recommendation which culminates in 80% of a user's eventual watch list being a show from the recommended list, inside Big-Data (2018) and Gomez-Uribe & Hunt (2015). In the next section the application and uses of big data will be discussed.

2.1.2 Big Data: Literature and Bibliometrics

A bibliometric review of the Big Data literature spanning a decade (2010-2020) and the literature over time was conducted by Zhang, Zhang, Li, Liu, Yang, & Liu (2021) they found that the top five big data topics were; (1) Operations & Technology Management, (2) Information Management, (3) Operations Research & Management Science, (4) Marketing and finally (5) General Management. With regards to marketing the topic started to ramp up in popularity between 2014 and 2017 but in more recent times has declined in prevalence amongst big data literature. Operations and Technology Management being the most popular topic after 2016 and continues into 2020. Zhang et al (2021) found that Marketing represented 28% of the literature and was more likely than all topics to appear in four-star (4*) AJG journals. The research found that over this decade the most common areas of discussion determined using a keyword raking analysis were; (1) Big Data, (2) Analytics, (3) Business Impact, (4) Behavior (customer and management behaviors),

(5) Dynamic Capabilities, (6) Quality and (7) Internet. The focus of this literature review will cover the 1-5 plus 6 and will disregard the quality aspect of the big data domain. The reason for this is that the subject of quality is disconnected from the overarching topic of internet selling via online marketplaces.

2.1.3 Theory Building with Big data Driven Research

In a 2020 paper Kar & Dwivedi (2020) proposed that current big data studies lacked insight into 'what' the data showed in the studies and focused on what was hidden in the data. This inhibited theory building and contribution to the field of information and management sciences as was as behavioural and organizational theory. "*Most of recent big data studies tend to focus on "what is hidden inside the data" rather than attempting to explain "why this is so"* (Kar & Dwivedi, 2020). In response to this theoretical problem in big data studies, Kar and Dwivedi proposed a model that conceptualized the journey towards theory development which involved model creation and validations using steps that take recursive steps to validate and affirm both insight from the analysis outputs and theory generated from the model. The output being a validated theoretical model that contributed to the given field, without lacking the deeper insight into "why is this so".   Validation at the final step of the model would come in the form of statistical tests, regression analysis, population analysis and links back to the existing literature, amongst other logical validation steps. Theoretical models are common output of big data research and this will be shown though section 2.1. When conducting the literature review, the researcher found that assertions made by Kar and Dwivedi were consistent, the big data literature was abundant in producing models but lacked the deeper insights that come from knowing more than what is hidden in the data but the root cause as to why the data shows what it does. Models also lacked evidence of the validation steps that are proposed as best practice by Kar and Dwivedi. When conducting this research the deeper questions *"why this is so"* etc will be considered to overcome this common big data literature shortfall, in order to ensure the contribution to theory is not compromised.

Figure 4: Journey Towards Theory Development in Big Data Research
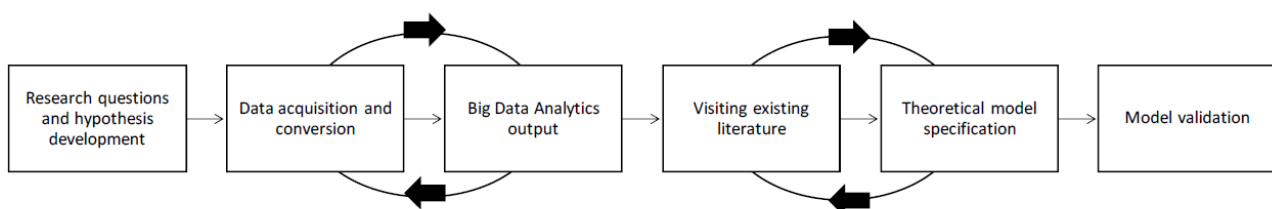
Source: Kar & Dwivedi (2020)

When exploring validity in information sciences research, Johnson, Gray and Sarker (2019) proposed four common methods of validation in information science research.

(1) **Construct Validity**: Concerned with hypothesis testing, this has historically been a dominant approach to justifying knowledge claims in information science research.

(2) **Statistical Conclusion Validity**: Concerned with whether observed covariation between variables is due to chance, researchers use statistical tests to corroborate and validate trends and findings.

(3) **Internal Validity**: Observed covariation between constructs implies a causal relationship. Studies that have strong internal validity have good defences against plausible alternate explanations for why constructs are causally related.

(4) **External Validity**: Causal relationships can be generalized across populations and studies that have strong external validity demonstrate that the sample and research setting are generalizable and representative of the broader context.

It is expected that the research findings will have external validity and that the conclusions and any theoretical assertions made will be validated using the 'external validity' and the researcher will aim to demonstrate validity by showing the theoretical outcomes are generalisable across the population. Statistical tests using population metrics may be difficult to archive due to the population data not being available in the public domain.

2.1.4 Big Data: Applications of Big data in Organizations

Over the last ten years, the application of big data in organizations has changed the landscape and the way that organizations do business. Big data is changing the way people find love, cure cancer, conduct science, improve performance, run cities and countries and operate business (Marr, 2015, p. 9). Data is now being collected in new and innovative ways and often goes unnoticed by individuals. Smart devices are collecting and using sensor data to locate the user through GPS to offer location based recommendations and directions, track steps and sleep to give health advice (Marr, 2016, p. 2) and is expected to aid in contact tracing to help stop the spread of the COVID-19 (Servik, 2020).

The modern big data environment creates a diverse sea of data, which many different companies have used in a variety of innovative ways, table 6 below outlines a number of examples of how companies have leveraged value from the application of big data in their organizations.

Table 6: Examples of big data Concepts

Feature / Characteristic	Definition	Examples	Business Driven Outcome
Volume	Scale of the data – Ability to capture process and store the data for practical use.	Walmart's real-time transactional database consists of 40 petabytes of data. This only includes data from the most recent weeks of customer transactions.	Customer Centric
Variety	Making sense out of unstructured data by trying to capture all of the data that pertains to our decision-making process.	Apple devices collect a large variety of type of data from its users. Data includes location data in order to offer location-based services and marketing. Activity data so it can offer exercise support, tracking and health related messaging. Search and shopping history to enable apps to target specific marketing messages.	Customer Centric Marketing Innovation R&D

		App usage and technical data to provide the app developers to audit and tackle app bugs etc.	
Velocity	The rate at which data arrives at the enterprise and the time that it takes the enterprise to process and understand that data.	Lotus Formula 1 (F1) team collects live real-time data from hundreds of sensors around its F1 cars to assess the vehicles performance. Each data capture is a snapshot broken down into milliseconds fed into mathematical models to assess reliability and performance.	Operational optimization R&D
Veracity	The quality or trustworthiness of the data. Tools that help handle big data's veracity discard "noise" and transform the data into trustworthy insights.	Google uses machine learning algorithms that constantly assess the sources it uses in its results for accuracy and relevance to the search criteria. It 'cleans out' any search results that have proven to be unreliable to present the user with the most relevant results.	Customer Centric Marketing
Value	The extent to which the data can generate value for the organization. E.g., competitor advantage, customer insight, organizational performance, buying patterns, customer reviews and behavior etc. leading to a result which usually ends in generating economic value.	The value that can be leveraged is exhaustive, however, one example is Uber which launched in 2009 and rapidly grew to operate on every continent. By 2015 Uber was valued at $41billion, it leveraged the use of big data through a concept known as crowdsourcing, offering the consumer vast choice on who they use to get them to their destination the quickest and most cost effectively.	Customer Centric Innovation

Source: Marr (2016).

2.1.5 Big Data: Generating Value from Big Data & Issues Relating to the Generation of Big Data

The sole purpose of collecting data from customers is to generate and leverage economic value for a company as well as optimize internal business processes and costs to leverage additional economic value. The main emphasis of big data research seen in the literature has been to shine a light in how big data can be used to generate business knowledge, and how to use this knowledge to aid the growth of the business. More recently the emphasis has been on the application of big data in value creation (Sumbal et al., 2019). From the organizational perspective, data compiled in a survey conducted by IBM suggests that companies primarily use big data to generate customer-centric outcomes, with 49% of their survey respondents indicating this was their goal (IBM, 2018). Some examples can be seen in table 6 above.

Table 7: Business Driven Outcomes of Big Data

Business Driven Outcome	% of Respondents
Customer centric outcomes	49%
Operational optimization	18%
Risk / Financial Management	15%
Business Modelling	14%
Employee Collaboration	4%

Source: (IBM Corporation, 2012) *survey based on 1,144 businesses in 95 countries.*

Davenport (2013) found that compared to traditional datasets, big data focuses on improving the efficiency and operations of organizations both internally and externally. McKinsey Global Institute (2011) identified

five ways in which organizations can generate value from big data, these are outlined in table 8 below along with some practical examples of how value can be created through the use of big data and the pitfalls that can arise from collecting it. Value creation can not only benefit the organization and its customers, it can also have an impact on society and market competition. "*Value creation through big data is an important factor for enhancing performance. It has a positive impact on both tangible (organizational performance) and intangible (societal) aspects depending on the context*" (Sumbal, et al., 2019). This impact is linked with value creation through innovation.

Table 8: Types of value creation

Feature / Characteristic	Attributes / Examples
Value Creation Example	
Creating Transparency and insights	Insights include trend analysis, predictive analytics
Improve business performance	Optimize product placement using geographical data, remove waste, highly targeted marketing and promotion, customer retention.
Understanding populations	Predictive customer behavior, anticipating buying patterns,
Machine Learning / Artificial intelligence	Voice analysis on AI devices, personal assistants
Innovation	Drone deliveries using GPS data to locate customers. Driverless cars using driver telematics to drive cars, cashier-less supermarkets tracking customer purchases through RFID or behavior recognition cameras.
Issues that arise from Big Data collection	
General Data Protection Rules (GDPR)	Data has to be encrypted and secure to avoid identity theft. Confidentiality has to be ensured. Retention policies have to match local laws.
Technology	Big data technology and infrastructure is expensive and not easy to maintain, machine learning and algorithms require teams of data scientists to monitor, create and innovate.
Organizational and employee skills & resources	Additional skills are sought after when recruiting employees, employees have to be analysts or have analytical abilities.
Data accessibility	Confidential and ethical considerations arise in making data available to employees, strong data privacy policies are required.
Macro Market Factors	I.e. public vs private sector.

Source: adapted from (McKinsey Global Institute, 2011)

Innovation: the role of big data is essential in terms of innovation. Organizations are using big data to push boundaries and big data is seen as the next big frontier in innovation (Sumbal, et al, 2019). For example, Tesla is using big data and machine learning to launch the driverless car and automate driving. Tesla collects real time data from its cars and their sensors to enable an autopilot function that acts in real time, reacting to the car's external conditions, even anticipating collisions and applying brakes to avoid accidents Marr, (2018). This auto pilot feature car is having influence on society (on accident rates) and the car manufacturing market as a whole. At the movement Tesla have a competitive advantage but this advantage will wain as the feature becomes more mainstream. One of the key questions in the literature surrounding innovation is related to the capabilities of organizations to innovate. In a study conducted by

Ghasemaghaei & Calic (2019) they examined each element of the four Vs of big data and how it influenced insights and in turn, organizational innovation competency. They identified that insights influenced innovation in two distinct ways; exploitation and exploration competency. Exploitation being the use of data i.e. improving customer recommendations, targeted marketing etc. exploration being more specific to research and development and using insights to develop new products and enhancing features of existing ones.

Figure 5: How Big Data Influences Innovation
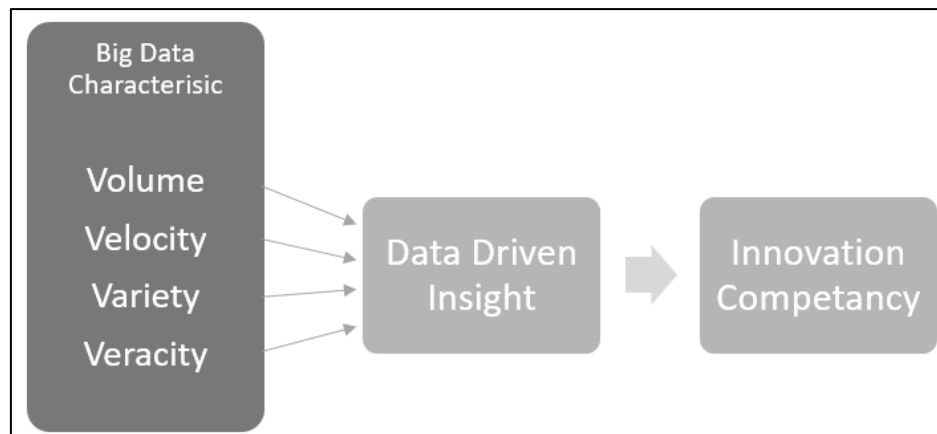
Source: (Ghasemaghaei & Calic, 2019)

The Netflix example discussed previously (Gomez-Uribe & Hunt, 2015) is a good example of an innovation competency, using their algorithm to accurately predict what a user will want to watch has an 80% success rate and is one key innovation competency that allows them to retain their customers but constantly keeping them interested in their content.

As well as innovation, analytics is a key success factor in the leveraging of big data to drive business value. The next section discusses these analytics as a key competency to success.

2.1.6 Big Data: Analytics 3.0 and Machine Learning

Analytics 3.0 is a concept coined by Davenport (2013) to describe the post-big data era where analytics can be leveraged in real time providing customers with highly targeted product recommendations, based on purchasing history and trends from likeminded customers. Advertising and marketing messaging can be highly targeted to the individual customer, eliminating the blanket advertising approach. Machine learning can be used to anticipate customer behavior and offer products to customers before they know they want it. Pricing can be adaptive by using competitor aware pricing algorithms, so the price offered is always the most competitive or at least matches the lowest offer. Machine learning is much more that an algorithm, machine learning can be defined as "*computational methods using experience to improve performance or make accurate predictions*" (Mohri, Rostamizadeh & Talwalkar, 2018) the key difference being that these algorithms learn and adapt based on the data they examine.

Table 9: The Evolution of Big Data Analytics

Era	Period	Description
Analytics 1.0	Pre 2000s	Pre-social media when online retail had low market share. Fact based analysis and decision making which went beyond intuition. Use of data such as sales, trends, demographic data gathered in marketing surveys etc.
Analytics 2.0	Early 2000s - Mid 2000s	Early internet-based retailers and search engine companies pioneered in larger scale data collection and analysis – first uses of the phrase big data in this time period. Significant rise in Silicon Valley technical expertise, capability building and number of companies scaling up in this area.
Analytics 3.0	Mid 2000s onwards	Real time application of big data analytics typically seen conducted by large pioneering data firms such as Google, Amazon and social media companies such as Facebook. Characterized in the use of algorithms, machine learning and highly targeted marketing techniques and advertising

Source: adapted from (Davenport, 2013)

Etsy uses its big data in a number of machine learning algorithms to drive value. For example, they use data from customer behavior to drive more targeted search results by monitoring the customer movements through their website, tracking how long a customer lingers on a particular listing and even what part of the listing they are viewing before moving on. This behavior analysis produces more targeted search listings by identifying customers' individual tastes and showing them items they are more likely to buy, this is adaptive based on the more data the customer generates, The Wall Street Journal, (2015).

2.1.7 Big Data: The Role it Plays in the Marketing Function

The literature review up to this stage has provided a more general overview of big data and its practical application in businesses, this section will focus on big data and its links into marketing strategies and marketing decisions.

2.1.8 Big Data and Decision Making

Big data is also a key success factor in business performance as it allows more informed decisions to be made "*The decisions made while taking into consideration big data tend to be better decisions and lead to better performance*". (Ferraris, Mazzoleni, Devalle & Couturier, 2019). There are several models proposed in the literature on how best to approach harnessing big data in relation to the decision-making process and how to turn data into decisions. Most models in the literature have the data move through a series of stages from collection at the beginning, to decision at the end. This section will give an overview of some of the models seen in the literature.

2.1.6.1 Models

Chen and Lui (2014) proposed a simple four phase value chain approach;

1. Data generation > 2. Data acquisition > 3. Data storage > 4. Data analysis

Elgendy and Elragal (2016) proposed slightly more complex four tier model encompassing Intelligence, design and choice and leading to implementation at its apex. The model at each tier, expands into many differing choices of software, hardware, data analysis approaches and visualization of the information generating infinite combinations.

Figure 6: B-DAD Framework Elgendy and Elragal (2016)
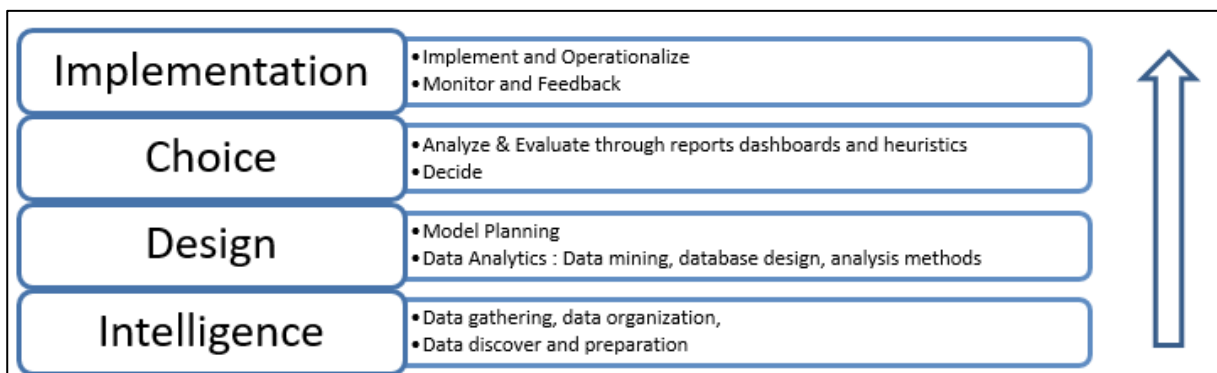
In a similar way, Janssen, Van-der-Voort & Wahyudi (2017) suggested a big data chain in order to move data from raw data to a decision this is shown in figure 7. Jansen, et al suggest that along this chain the data is cleaned and enhanced leading to analysis and ultimately decisions, but is also impacted by "*The veracity (manipulation, noise), variety (heterogeneity of data) and velocity (constantly changing data sources)*" (Janssen, et al., 2017).

Figure 7: The Big Data Chain
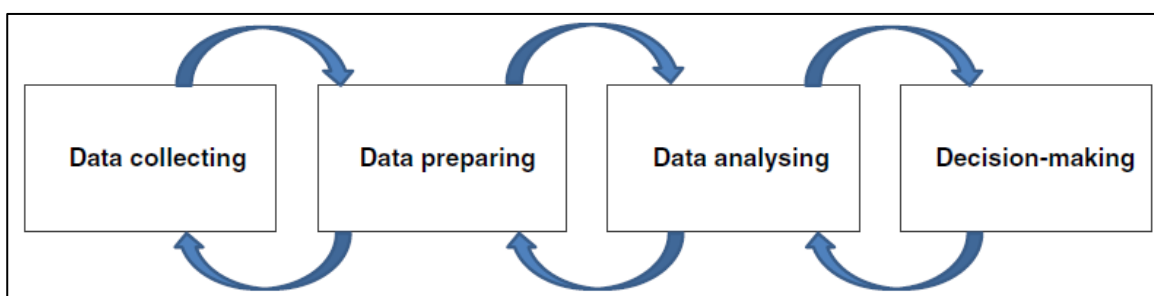
Source: (Janssen, et al., 2017)

These types of model, displayed in a chain format, are very typical in the literature, the models propose in slight variations that there are stages of data movement in the style of a production line, where at each stage more refinement is conducted leading to a more refined data which moves forward into creating value through decisions.

When considering these chain models against the research context, the sellers selling on online marketplaces, the approach to big data gathering, storage, data handling and presentation is a service

which is provided by the platform owners or external organizations and not something that can be controlled by the seller communities. To a certain extent the data visualization and analysis stages are also taken care of with the production of standardized dashboards and reports given to the sellers by the platform, however, the conclusions and actions driven as a result of the insight the data has created is within the control of the sellers. The final stage of this data journey is one of decision making or value creation. This is the area that this research should therefore focus on.

In terms of value creation, Mazzei and Noble (2017) outline three tiers of value that organizations can leverage from big data the second tier "data as an industry" is extensively covered in the literature and in industry publications, magazines, and articles. Tiers one and three, "data as a tool" and "data as a strategy" are represented to a lesser extent in the literature. The focus of this research will be on these two tiers with particular emphasis on "data as a tool", the strategic element will also be explored to determine how selling via online marketplace platforms and using the big data services provided may or may not limit the ability to gain strategic leverage.

Figure 8: Three Tiers of Value Creation due to the Big Data Phenomenon

Data as a Tool	Managers are able to solve traditional value chain problems more efficiently and effectively; existing capabilities are improved through real-time, customized decision making for individual consumers
Data as an Industry	Spin-offs and new ventures are created to specialize in acquisition, storage, and analysis of data, construction of infrastructure, and development of software devoted to handling big data
Data as a Strategy	Visionary leaders develop companies dedicated to building data resources to allow them to develop radically innovative business models that wed traditional and modern strategic thought

Source: Mazzei and Noble (2017)

Similar to the models that lead to value creation discussed above; in the marketing space, De Luca, Herhausen, Troilo & Rossi (2021) proposed that there are three important big data marketing affordances that lead to value creation, these are; (1) customer behavior pattern spotting, (2) real-time market responsiveness, and (3) data-driven market ambidexterity. These lead to enhanced business and customer benefits in service innovation, and perceived big data performance with influence from digitization. This type of model conceptualizes the benefits that an organization can bring in terms of insights leveraged from big data and big data analysis which leads to innovation on the service or customer offering. Therefore, the big data investment has a return on that investment.

Figure 9: Big Data Marketing Affordances
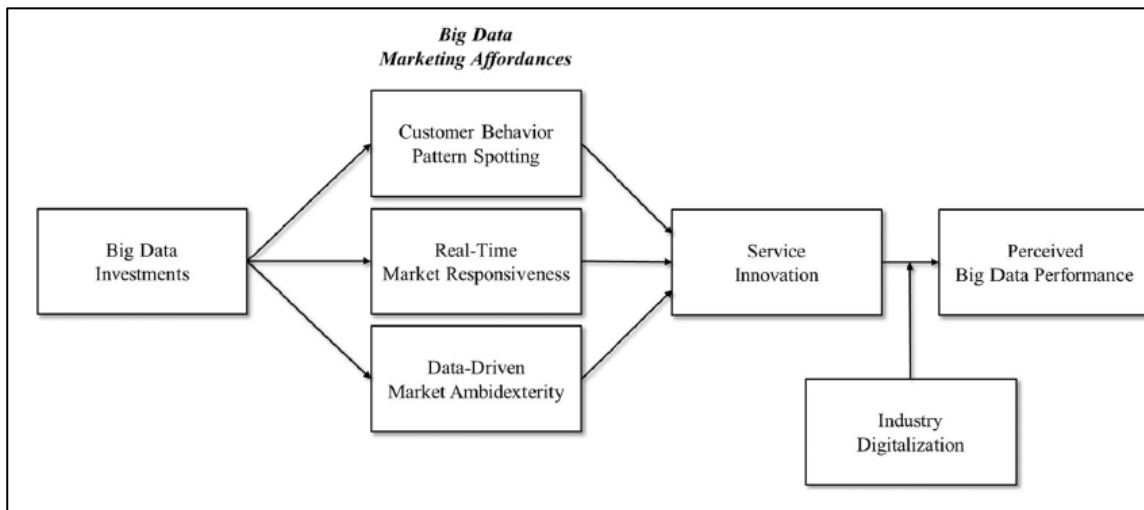
Source: De Luca, Herhausen, Troilo & Rossi (2021)

The value of the data through decision making will be discussed in the next section.

2.1.6.2 Value Chain and Use of Big Data

Porter in 1985 introduced the concept of the value chain which described a framework of activities which when built up created value for an organization. Miller and Mork (2013) building on Porter (1980), proposed a similar concept, in designing a Data Value chain. In this chain goals are achieved through data discovery, integration, and exploitation. All the discussed models (Chen and Liu, Elgendy and Elragal and Porter) have a very similar structure, which is typical of the literature. The structure moves data through simple or complex processes in a "production line" style. At each stage of the production line data is cleaned, enhanced, prepared and the final result is insight that can be used to make decisions. The data value chain model proposed by Miller & Mork is very representative of the data "production line" seen throughout the literature.

Figure 10: Data Transition Model
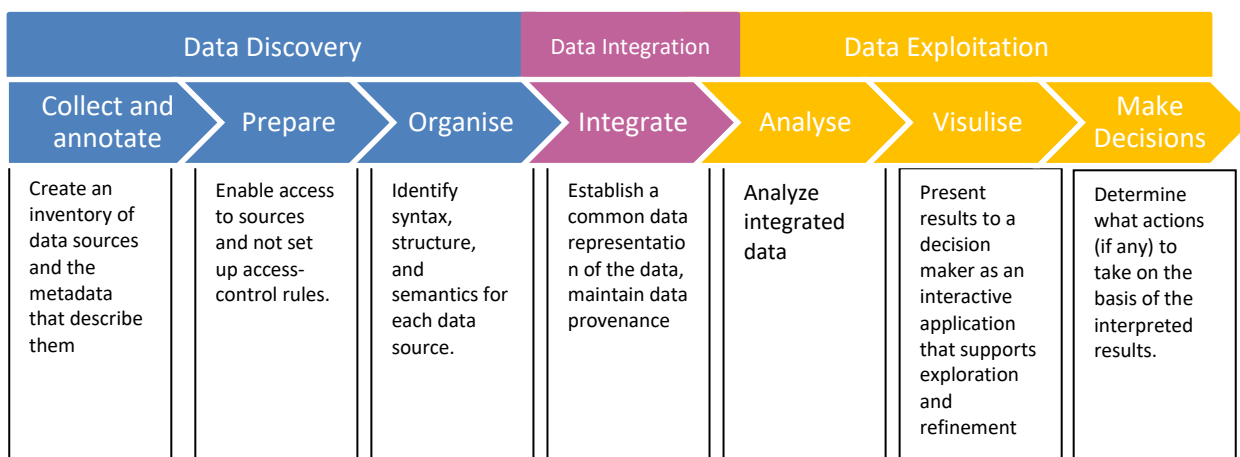
Source: *adapted from* Miller & Mork (2013)

In order to categorize the research papers that were considered as part of this literature review, the themes or the focus of the articles used were categorized into the three areas described by Miller & Mork (2013) and the results can be seen below:

Table 10: Analysis Articles Against the Data Transition Model

Theme	Article(s)	Comments
Data Discovery (Collection, Prepare, Analyze)	(Hashem, et al., 2015)	The focus of the article is cloud based data capture and storage solution. The research is centered on the infrastructure that supports discovery of data but does touch on the integration to a lesser extent.
	(Bello-Orgaz, et al., 2016)	This article focuses on the Data mining/representation and visualization in the social media and social network arena.
	(Li, et al., 2015)	The article focuses on whether big data has applications across the various stages off the product lifecycle and eludes to possible applications of big data throughout the manufacturing stages.
	(Jin & Wah, 2015)	The article is concerned with challenges in the areas of volume and complexity of data and offers solutions for handling.
Data Integration	(Huang, et al., 2015)	The article focuses on the machine learning aspect and how algorithms can be set up to deliver insight from the raw data this article spans the Integration and Analysis part of the Data exploitation stage of the framework.
	(Assunção, et al., 2015)	This article has dual focus – it starts by discussing storage and architecture and ends with the analysis and visualization.
Data Exploitation (Analyze, Visualize, make decisions)	(Gandomi & Haider, 2015)	This article focuses on the analytical, offering advice on different types of statistical analysis techniques leading to the concept of predictive analytics.
	(Fosso-Wamba, et al., 2015)	The article focuses on leveraging business value from big data and uses five case studies to highlight the different business benefits that have been achieved from the use of big data in cloud based big data environments.

Source: The Researcher

From table 10 above, it can be seen that there is literature that covers the 'Data Exploitation' aspect of the framework, however, there seems to be a distinct lack of literature that covers the decision-making aspect of the framework. The key pieces of literature focus on the 'how' big data can be leveraged, with some having case studies to illustrate this 'how' element, but the literature doesn't focus on 'why' decisions were made and what data points and insights drove any actions. There is little or no research conducted that focuses on the decision-making aspect of leveraging big data. This seems to be in underrepresented area of study in the literature considering big data and decision making.

2.1.6.3 Application of Big Data in Marketing Decision Making - Challenges

One of the issues arising from the themes of the literature is in the area of capability to use big data to leverage business benefit or to use in decision making from the online seller's perspective. Online marketplaces such as Amazon and eBay have industry leading big data capabilities, however, the question

arises, do sellers have access to this data and do they have the ability to leverage it for business benefit or to aid in decision making. When considering this topic, Dezi, Santoro, Gabteni & Pellicelli (2018) suggest a number of challenges or barriers that are faced by business.

Challenges related to big data exploitative and explorative business processes:

1. Proper IT infrastructure needed.
2. IT partners selection.
3. Competences and skills in analytics and big data-driven decision making.
4. New skilled positions employed.
5. Organization and structure.
6. Normative and legal aspects.

In order to examine the extent of the challenges faced by the population of online sellers their situation has been examined against these six criteria and is outlined below:

Table 11: Analysis of Online Sellers Challenges to Implementing Big Data Strategy

Challenge	Analysis of the Online Sellers situation
Proper IT infrastructure needed	The data and infrastructure are owned and managed by the marketplace provider. Sellers have no input or decision-making authority in what data to collect and how it is used.
IT partners selection	Small organizations may not have the resources to employ a specialist for big data management or big data analysis.
Competences and skills in analytics and big data-driven decision making	Decision making and interpretation may be left to the few individuals as seller businesses may only have a small number of employees or could be run by a single person in some cases. This doesn't prevent the small number of employees from upskilling in analysis and interpretation of big data.
New skilled positions employed	As per the specific IT skills – seller businesses may not have the resources to have dedicated skilled employees instead they may have to up-skill their existing workforce in data analysis and interpretation.
Organization and structure	Seller business may not have a dedicated marketing or analysis function and will rely in the skills of individuals.
Normative and legal aspects	Data held on marketplace databases may be confidential for example customers of the marketplace may buy from multiple sellers in the same transaction but the seller may only get visibility of their transaction and not the full picture of the customers behavior.

Source: adapted from Dezi, et al (2018)

It can be seen from table 11 that the seller using a marketplace as a source of its big data can be very restricted in its adoption and implementation, due to limited resources (number of staff) and limited control over the sources and structure of data or how it is interpreted through reporting and dashboards. On the limited resources it can be inferred that the seller business would have to employ multi skilled individuals, or upskill existing employees to become capable of conducting data analysis and interpret reporting, due to a lack of a dedicated function. It is also apparent that the seller will be restricted on what data they can access due to legal restrictions. In the example of a customer buying from multiple sellers in

one transaction, the seller will only be able to have access to the customer data relating to the sale for their product and not have the whole picture of the customers buying behavior with other sellers. Capabilities on adoption of big data is an area that will need to be explored in the research.

2.1.9 Big Data – Effect on Marketing Capability Development

A number of pieces of literature outline that capabilities are a key component in being able to leverage big data for marketing and value creation. Dezi, et al., (2018), Miller & Mork, (2013), Janssen, et al., (2017) and Chen & Liu, (2014) among others. Akter, Wamba, Gunasekaran, Dubey & Childe (2016) discussed capability in the concept of: Big data analytics capability (BDAC). This is broadly defined as the competence to provide business insights using data management, infrastructure (technology) and talent (personnel) capability to transform business into a competitive force (Akter, et al., 2016). Big data analytical solutions will differ depending on the capability of the business "*managers need to have an appropriate BDA solution according to their firms' BDA capabilities in order to gain advantage from their BDA investments*" (Dahiya, Le, Ring, & Watson, 2021). Breaking these capabilities out into the singular components is particularly important when examining big data capabilities in the context of the research subject, the online marketplace seller. It can be difficult to assess capability in the traditional sense, for the first two elements' data management and technology. This is because the seller may not have its own in-house big data infrastructure that is dedicated to the selling on the marketplace(s). This is because the data is owned by the marketplace provider and the ability to download the raw data will be limited. There may be capability to leverage big data via tools and reports that transform the data into readable and usable information. Therefore, the capability in the form of technology and big data infrastructure may look very different to an organization who has total ownership of their own data. Sellers may have their own capabilities for capturing and using data throughout their offline or own website sales, however, it is not known if sellers leverage their other customer data for marketing reasons, applying the knowledge and strategy to their marketplace selling and marketing plans. This strategic use of big data is a gap in the literature that can be explored and the extent that this capability could be a limitation or an enabler to creating value from big data via the marketing plan.

Capability in the personnel element may also be difficult to determine due to the nature of the organizational structure. Seller organizations may be small (less than 50 employees) or could be sole trader operations. This means that marketing and big data analytics skills are essential requirements of the owner or the personnel to have, in order to successfully leverage big data for marketing purposes and eventual value creation. This is a gap in the literature as it has never been researched and will be included as a point of assessment in this research.

2.1.10 Big Data – Challenges in Marketing Decisions

When analyzing recent trends in big data and its implications on marketing theory Lukosius & Hyman (2019) found that there were a set of four identified biases in the literature:

1. **Bigness bias**: the false assumption that vast data is needed to make predictive analytics work rather than sample data representing a population.

2. **Complexity bias:** bringing together multiple data sources that have no defined links e.g. combining social media data with customer transaction data without the unique link to the individual customer. Making assumptions to link trends to behaviors.

3. **Overfitting bias**: when overly large data sets produce no trends when aggregated, however, when examining a specific situation or population trends become apparent.

4. **Statistical method bias**: tendency to overuse preferred statistical methods that do not produce usable results in all situations. Statistical methodology therefore should be adaptive and businesses should experiment to get the right fit.

"*Using big data in academic research requires specialized skills few marketing scholars possess because big data is the realm of computer science, not social science*". (Lukosius & Hyman, 2019)

As the literature surrounding the use of big data by sellers is limited, it is an open question as to whether the seller communities face any of these barriers, when leveraging the data available or face any barriers in the analysis of big data due to their level of skill, knowledge and experience in this field.

2.1.11 Big Data and the Marketing Mix

Bringing together the subject of big data and the subject of marketing and examining it through the lens of the marketing mix was a framework proposed by Fan, Lau, & Zhao (2015). They proposed a three-level framework that overlays the five Ps of the traditional marketing mix. The model has the aim of proposing a framework for managing big data for marketing intelligence. The first stage is the data stage, where the business would gather data from various sources which are reviewed and refined into marketing intelligence. The second stage is the analysis stage where a variety of analysis methods are used to convert raw data into marketing knowledge. Finally, the applications stage the knowledge is turned into action and applied in different ways across the 5 Ps of the marketing mix.

Figure 11: Marketing Mix Framework for Big Data Management
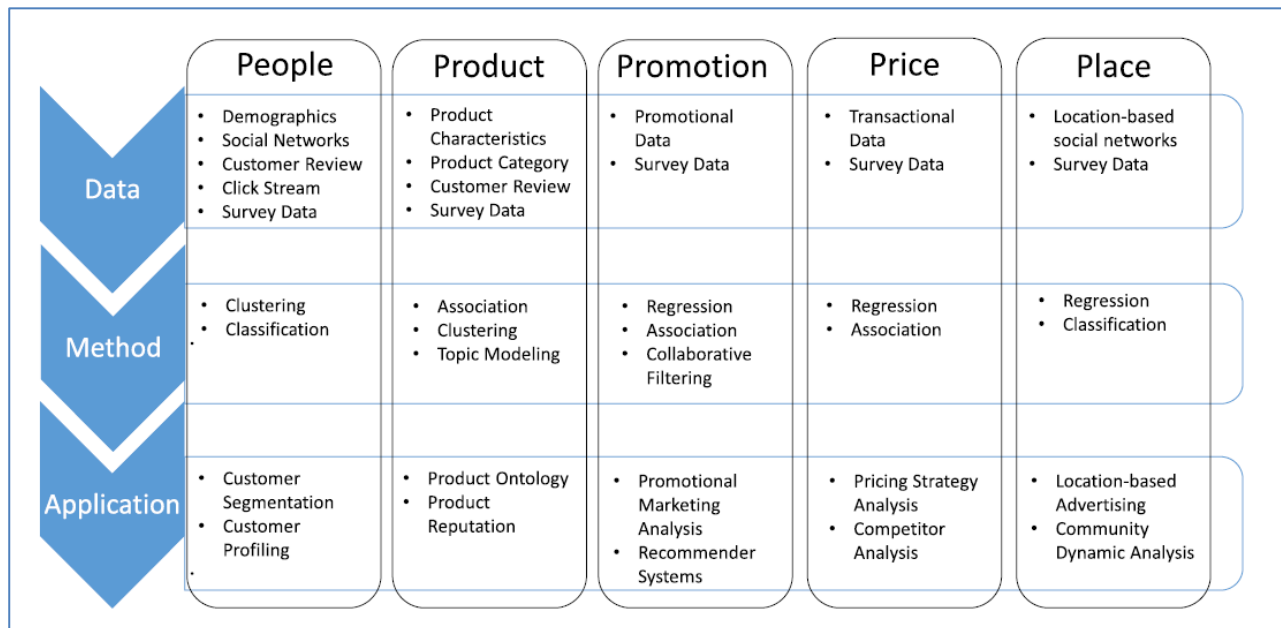
Source: Fan, Lau, & Zhao (2015)

In order to aid in the focusing of the research, the model produced by Fan et al (2015) can be used to examine the current situation in the seller community as part of the research objectives in RQ1. This aims to find out how the data can drive strategic marketing decisions around, products, pricing, promotion and inventory placement. One benefit of using this framework to focus the research is that the five Ps is a very recognized model when considering marketing. Questions that therefore refer to product, price, place, promotion and people will be logical and recognizable to the participants. Below is an overview of the three stages proposed in the framework and how they can be used to focus the data gathering in order to support the research aims and objectives.

Table 12: Use of the Marketing Mix Framework in the Research

Category	How do sellers could achieve this?
Data	Where is the data from? Internal or external sources and are they combined? What type of data is available? Is it structured and unstructured? What types of data are used for what purpose? Is the data cleaned and error free?
Method	Who conducts data analysis, in-house or 3rd party or is the analysis done by the marketplace for the seller? What types of analysis is done? Segmentation, clustering, regression, seasonality, customer behavioral etc.? What systems are used to achieve this and does it require technical or analytical skills.
Application	What decisions are made? How are actions determined in the areas of product, rice place and promotion? What other practical applications are made? E.g. On own website or physical store.

Source: adapted from (Fan, et al., 2015)

2.1.12 Big Data and Online Marketplaces

There are a number of examples of how online marketplaces use big data to gain competitive advantage. In this section the main companies involved in this research context will be examined in terms of their capabilities and documented uses of big data to drive their business performance.

2.1.10.1 Amazon

Amazon has the most well documented capabilities in the big data area as it operates in both the retail sector and even offers the very technical services that it invented for itself, for companies willing to pay for it through its various Amazon Web Services (AWS) products. Etsy at one time used AWS products to manage its own big data and the machine learning services it runs.

Amazon has pioneered some of the most used big data applications "*They already use algorithms to suggest and recommend other products you might like based on your previous buying behavior and they have also recently patented something called 'anticipatory shipping'*" (Marr, 2016). The anticipatory shipping algorithm would suggest items to customers based on their previous shopping behaviors i.e. they would suggest next day delivery listings for those things the customer would typically want the next day and longer shipping timings for those items that aren't necessarily essential and the customer has previously waited. Amazon also uses this data to place inventory in the right geographical locations to ensure shorter and more cost-effective deliveries. Amazon also uses price optimization algorithms, examining competitor prices in real time. "*Product prices typically change every 10 minutes as big data is updated and analyzed. As a result, Amazon typically offers discounts on best-selling items and earns larger profits on less-popular items*". (Wills, 2018).

Amazon have expanded their machine learning expertise into the personal assistant market with the launch of their Alexa devices in 2014. The machine learning is not built into the devices themselves but operate in the cloud and merely communicate commands and responses with the device. The learning, interpretation and response are formulated in the cloud-based solution.

The question arises; how much of these services can be accessed by the seller and how much of the data is made available? There is also a question of; is any of this open to the seller community or does it only serve amazon itself?

There is also a possible conflict of interest within Amazon itself as they have access to the data of their seller communities. Do Amazon use this data to benefit amazon with regards to products and prices? This was one conflict of interest that was raised with Jeff Bezos in a US congressional hearing in 2020. "*By definition, "anonymized data" is not "seller-specific" because it does not identify any specific seller. Amazon's policy nonetheless prohibits the use of anonymized data, if related to a single seller, when making decisions to launch private brand products*" (US House of Representatives, 2020).

2.1.10.2 eBay

eBay and its successful financial transaction company PayPal use big data in a variety of ways. Like Amazon, eBay it uses its data to recommend to customers based on their past buying behavior and also recommends alternative products to customers who may have lost out on an auction. There are other examples of how eBay and PayPal are using big data to protect their customers and therefore their brand reputation "*eBay's also creating predictive machine learning models for fraud detection, account take-over, and enabling buyer/seller risk prediction*". (Lopez, 2016). This is something that has obvious benefits for the seller community as well as the customer, the PayPal model also has benefits for both parties.

It isn't well documented how much of the big data is available for the seller on eBay, for example do professional sellers have the same access as the occasional "at home" seller? Do sellers have the ability to use their eBay big data to make decisions and drive actions in the prices and product listings? Or are all the innovations in big data designed to aid the customer?

2.1.10.3 Etsy

Etsy uses machine learning to aim to produce bespoke recommendations, because of the unique nature of the Etsy product range (being bespoke often handmade and vintage goods and gifts) it can be very difficult to make recommendations. "*Etsy use both transactional (sales) and behavioral (browsing) data, including how users move around the site and how long they linger on a product to make real time recommendations*". (Marr, 2016, p. 133). This they will do for the benefit of their customer but how this algorithm is benefiting sellers is less known. For example, how do sellers optimize their listings to appeal to the customer and does the data allow them to see what needs to be optimized?

It is not well documented how much access the online marketplace seller will have to the big data power which the provider uses to drive its own sales. For example, is the data that Amazon use to track customer glances available to their seller communities and if so, how do they use this data to improve their product listings or make other decisions. In the examples of eBay and Etsy are all big data innovations in aid of the customer and customer experience, how much of the big data do the seller communities have access to and how do they use this data to make business and marketing decisions. This is a gap in both the academic literature and the wider mainstream media and could be addressed in this research.

2.2 Marketing Strategy

This section will provide an overview of marketing strategy in the literature that impacts online marketplace selling. This includes an overview of traditional marketing models, how these traditional models are suited in the online setting, social media marketing and the impact of marketing strategy higher education has on businesses.

2.2.1 Marketing Strategy: An Introduction into Marketing Strategy

This section will focus on the marketing strategy element of the research context. The topics discussed will cover; traditional models that are seen in academic literature, online marketing models including social media marketing as well as applicable marketing strategy models that can be used by small online sellers. With the rise in analytical needs within an organization's marketing capabilities, the extent to which higher educational institutions are rising to this need will also be explored.

2.2.2 Marketing Strategy: Traditional Marketing

In this section some popular traditional marketing tools and models will be discussed in turn and the extent to which each model can be used in the context of the online marketplace seller. The strengths and limitations of the models will be discussed in order to provide insight into how applicable these models are in this particular context. It is expected that this research will produce a model that conceptualizes the nuanced experience of the marketplace seller and can be used to overcome the limitations of these more traditional marketing models. The models chosen in this review were taken from a popular academic text in the field of marketing management by Kotler & Keller, (2019) (Marketing Management European Edition, 2019 Pearson Education). This text was the highest ranked general marketing academic text aimed at undergraduates by an educational publisher on Amazon.co.uk in September 2020 (Raked 28 in the Marketing Management category). See Appendix 1. Each model will be evaluated for its advantages and disadvantages for use in the context of a marketplace seller.

2.2.2.1 The Marketing Mix (5Ps of Marketing)

The marketing mix is one of the most well-known and popular marketing strategy models that was proposed by McCarthy in the 1960s. The model was originally proposed to be 4 Ps (Product, Price, Place and Promotion) but has since been added to; People being the 5th P which considered both customer and employee strategies. A further two more Ps are often also added to the model Process (which is particularly important for service businesses) and Physical Evidence/Environment (which is concerned with aesthetics and the shopping experience). As the marketplace seller is not a service provider and the physical environment is out of the control of the seller the last two Ps will not be considered for this analysis.

Figure 12: The Marketing Mix

Marketing Mix				
Product	**Price**	**Promotion**	**Place**	**People**
Functionality	Selling Price	Sponsorships	Distribution Channels	Service Provided
Appearance	Discounts	Advertising	Logistics	Attitude
Warranty	Payment Arrangements	Public Relations Activities	Service Levels	Customer Service
Quality	Price Matching Services	Message	Location	Appearance
Packaging	Credit Terms	Media	Market Coverage	Employee Portrayal

Source: The Researcher adapted from (Kotler & Keller, 2019, p. 24)

Benefits:

One of the largest benefits is that the model is simple and focuses the user on the five simple areas in order to create a robust and joined-up marketing strategy. There is a wide and general acceptance of this tool both inside and outside of academic literature. As such the model is widely publicized in academic and mainstream literature. "*The wide acceptance of the Marketing Mix among field marketers is the result of their profound exposure to this concept during college years, since most introductory marketing manuals embrace it*" (Constantinides, 2006)*.*

Criticisms:

There have been a great number of criticisms of the marketing mix over the years a summary of a few of these can be seen below:

"*The concept of 4Ps has been criticized as being a production-oriented definition of marketing, and not a customer-oriented one*". (Popovic, 2006) This was most likely one of the biggest reasons why the 4Ps was expanded to include up to seven Ps in total, in order to make the model more customer focused and more inclusive to most businesses, both production and service oriented.

"*The Mix is void of theoretical content; it works primarily as a simplistic device focusing the attention of management.*" (Goi, 2009) It is true that the model doesn't provide all the user with all the answers and the nature of the model requires five separate plans to be brought together into one aligned plan. Another criticism (that can also be applied to the other models discussed here) is that the model treats the product as singular, but businesses can have vast product ranges and diverse business operations, so the model loses scalability. *"Product is stated in the singular but most companies do not sell a product in isolation. Marketers sell product lines, or brands, all interconnected in the mind of the consumer"* (Goi, 2009).

<u>Applicability to the Seller Community</u>:

The Marketing mix model is highly applicable and usable for the seller community as it serves as a guide for the overall marketing strategy. Each P the seller should consider how their environment will impact the strategy. For example, in the product category sellers would fall foul of entering or investing in a product category that is dominated by another seller or the platform itself, unless they had clear competitive advantage. This may not be a consideration when selling in a physical store in a specific geography. Similarly, in the people segment, the strategy should be oriented around the elements of the customer experience within the control of the seller i.e., there is no point in having a specific customer service strategy as customer services is handled by the platform. Instead, the seller should concentrate on the elements that generate positive feedback, positive ratings and customer satisfaction.

The model is lacking an overlay of the nuances experienced by sellers, e.g. In the Product category the seller would only have agency over the packaging element if they shipped products themselves. In the price category, elements such as credit terms and payment arrangements are limited to what can be offered on the marketplace. In the promotion's category, the seller is limited to what marketing emails (if any) and marketing materials they can send to customers (if any) so marketing communications should therefore be focused on the elements that the customer can see, such as product listings, ratings, feedback and Q&A responses in the product listings.

2.2.2.2 SWOT / PEST analysis

SWOT analysis is a review of a business' strengths, weaknesses, opportunities and threats in order to produce strategies can focus on maximizing strengths and opportunities and overcoming weaknesses and threats. This SWOT analysis is an internal and external review of a businesses' environment. The PEST analysis is a macro environmental analysis, examining political, economic, social and technical environmental impacts. The aim of a PEST analysis is identifying all of the barriers, pitfalls and external factors that need to be identified in order to produce a well-rounded marketing strategy taking into consideration all these factors.

Figure 13: SWOT / PEST Analysis Model

Strengths Advantages Capabilities Resources	**P**olitical Government strategy Tax policy Regulation changes
Weaknesses Disadvantages Vulnerabilities Limitations	**E**conomic Economic growth Inflation
Opportunities Chances Developments Benefits	**S**ocial Income distribution Disposable income Demography
Threats Obstacles External effects Risks	**T**echnical International influences Technical capabilities / patents Technical competition

Source: The Researcher adapted from Kotler & Keller (2019, p. 88)

Benefits:

Both frameworks are widely known and widely used and very simple to apply in a 2006 study Grundy estimated that awareness in businesses school graduates was very high and at least 50% adopted the technique. "…*the awareness level of basic SWOT analysis, a crude estimate is of 90–95% awareness and at least 50% active use*" (Grundy, 2006). In a paper published by CIPD (2020) they listed a number of other benefits most notably it enables senior managers to focus on strengths and build opportunities and anticipate future business threats.

Criticisms:

One of the criticisms is that it is too simple and can mean not enough data is used to make decisions. Alternatively, too much data can be gathered in this type of analysis leading to 'Analysis paralyses'. The CIPD (2020) suggests that "*The data used may be based on assumptions that later prove to be unfounded*" and some detailed elements could get missed.

Applicability to the Seller Community:

This model is very useful and applicable to the seller community. Like the marketing mix the model is simple and can allow the seller to focus their strategy by identifying areas to focus on to be successful or areas to anticipate and put in plans ahead of time in case potential threats turn into realities.

There are some limitations to using this model to formulate marketing strategy. One is that most of the threats and all elements of the PEST analysis are heavily reliant on market research to generate data in order to make an accurate valuation of the macro and micro environment. This is something that big

business do invest in, however, the smaller independent seller may not have the resources to conduct this type of in-depth market research. The analysis conducted by the seller may be localized to evaluating seller competition, and public data that can be gathered from the marketplaces they operate in. they could therefore miss the market threat signals that a deeper SWOT/PEST analysis would highlight or make assumptions that could later be found to be in error. One last criticism is that the sellers may not have the resources to overcome threats, especially product threats from big business or the platform itself. Anticipating changes in the marketplace environment unless they had insider knowledge would be guesswork.

2.2.2.3 The Boston Consulting Group Matrix

The BCG matrix is described by Kotler & Keller (2019) as a tool for cash flow rather than profitability. There are four types of product categories. Stars which are products that are growing or have high growth, these products require investment to grow market share. The question marks are products in high growth markets that cause a drain on cash flow and so decisions should be made as to how to alleviate their drain on cash flow. Cash Cows are projects in low growth markets with high market shares that are cash generators for a business. And finally, dogs are products in low growth markets and low market share these products produce poor or negative profitability and cash flow. This tool should be used by a business to balance their portfolios to optimize cash flow and profitability.

Figure 14: Boston Consulting Group Matrix
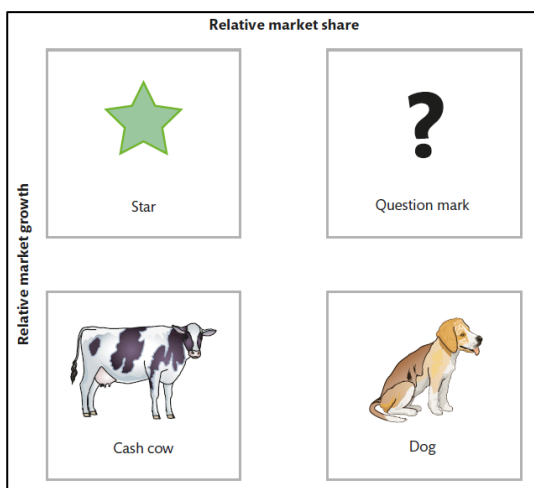
Source: (Kotler & Keller, 2019, p. 79)

Benefits:

The matrix is fairly simple to use and understand, its benefits are in that it inspires companies to grow profitability through growing its market share.

"*The matrix indicates that the profit of the company is directly related to its market share. Therefore, a company can increase market share if it seems profitable*" (Mohajan, 2017). The model can inspire longer

term planning and a more forward-thinking marketing strategy. It also allows companies to leverage the cash generated by cash cows and remove or limit dog products from their portfolio.

Criticisms:

The model is often criticized as being vague, focused on cash flow rather than profitability (when most companies focus on profitability) and lacks any focus on the customer or the competitors. The model theory also focuses on promoting stars, gaining market share and growth for products rather than focusing on customer satisfaction. "*Preoccupation with concentrating on market growth and market share distracts marketers' attention from key tasks such as creating and delivering customer-perceived value*" (Kotler & Keller, 2019). Another criticism is that even though "dog" products have low market share and low growth they can still be profitable. "*Sometimes a business with a low market share can gain expected profits*" (Mohajan, 2017). It is often assumed that these products are a drain on cash flow or lack profitability, but this isn't always the case. Some writers suggest that the BCG has lost its popularity in modern marketing as it has been overtaken by portfolio management (Madsen, 2017), which is an unexplored area of the field, it is unknown how the marketplace sellers manage their products. Are they product or portfolio led?

Applicability to the Seller Community:

This model is also applicable to the marketplace seller, it is an effective way of highlighting outlier products (either positive or negative) these are the products that would require specific attention and therefore specific marketing strategies and tactics applied. It is recommended that big data reporting be set up to help the sellers identify what categories their products fall into. However, this model should be used to identify outliers in order to derive a marketing decision in response to its current position, micromanaging each product would be difficult, especially if the seller has a vast product range. Focus should be given to the customer rather than the product and short-term cash flow / profitability shouldn't trump the customer's needs.

2.2.2.4 Ansoff's Matrix

In 1957 Igor Ansoff designed the Ansoff Matrix, Ansoff developed a four-quadrant matrix that was used by businesses to define management and marketing strategy, based on the mix of growth areas and product life. The model suggests four types of strategy that are applicable in each quadrant. The market penetration strategy refers to existing products sold in existing markets, these products should have an appropriate pricing and promotion strategy to promote sales. The Market development strategy refers to existing products in new markets, the strategy should focus on seeking additional market share by expanding into new markets or new customer segments. The product development strategy refers to new products in current markets, meaning the business should invest in new products and introduce them into markets known to them. The final category is Diversification strategy where the business launches new products into new markets, this is a high-risk strategy requiring investment into new products and markets.

Businesses opting to use a diversification strategy often do so with the aim to future proof their business to external forces that may have impact on their core products. The Ansoff matrix is used to design which overall marketing strategy should be used and what marketing tactics are most applicable in each quadrant.

Figure 15: Ansoffs Matrix
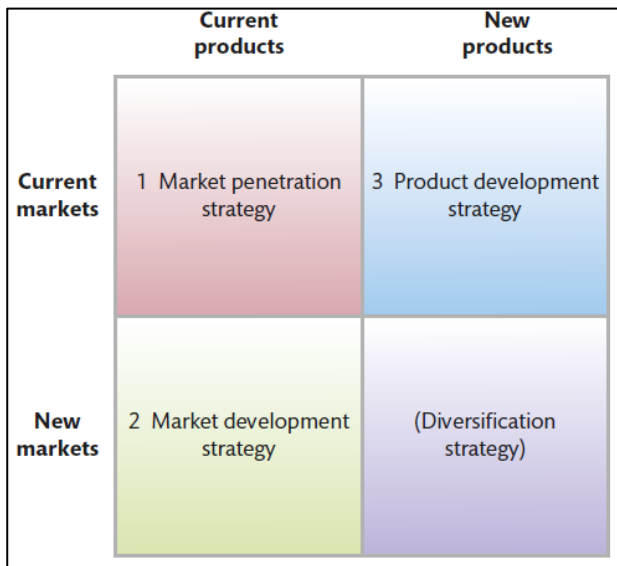
Source (Kotler & Keller, 2019, p. 81)

Benefits:

In a study by Stephens, Balan & Callaghan (2010), they discovered that 72% of graduates indicated that the Ansoff matrix had practical relevance in the workplace. The model like most of the other discussed is simple, easily understood and applied to real situations.

Criticisms:

The model assumes that the user manufactures their own products and have access to move into multiple markets. This may not be the case for every business, especially for service businesses. The model doesn't have any focus on the competitor or competitor strategy. Formulating strategy without having a strategic focus on competitors could lead to negative impacts of competition to the user as they do not have any plans to counter competition.

Applicability to the Seller Community:

The model in the main has applicability for businesses who manufacture their own products, in particular the two "new product" categories. The market penetration and product development strategy are very specific to businesses that sell their own manufactured products. Similarly, the new markets categories are not applicable for the seller communities, as they operate in one or more online marketplaces and more

markets are not open (or do not come along very often) for them to go into. The model may be worth considering for those sellers who do make their own products rather than act as a retailer for other brands.

2.2.2.5 Porter's Generic Strategies

Porter proposed three different strategies to align the business', overall business and marketing strategy to provide a foundation for strategic thinking. The first strategy is cost leadership where the business adopting this would pursue the lowest cost of production and distribution to gain completive advantage winning market share. The second strategy is differentiation where the business focuses on a strategy of providing the customer with a unique selling point or a reason to buy from them (such as quality leadership) rather than from a competitor. The final strategy is focus where the business will focus on a targeted market segment, using cost or differentiation in that focused area to gain market share, thus the focus can be a cost or a differentiation strategy.

Figure 16: Porters Generic Strategies Model
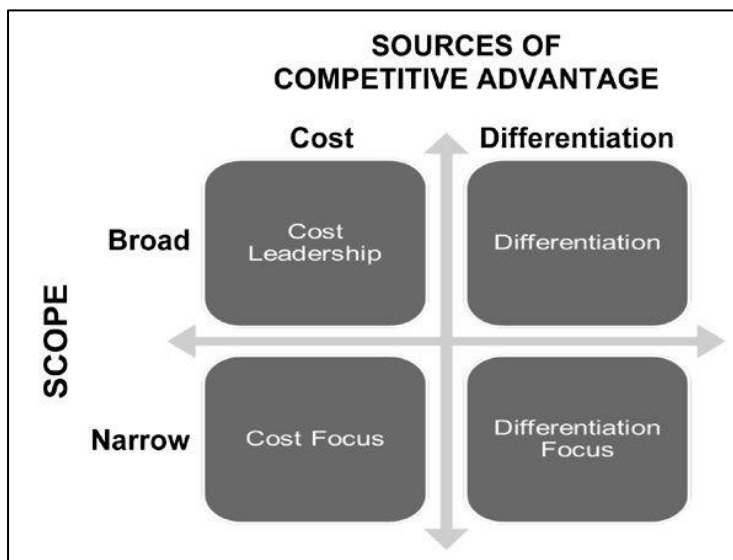
Source: The Researcher adapted from Kotler & Keller (2019, p. 92)

Benefits:

The model is generalizable and can be applied to multiple contexts, markets and business, even modern e-commerce business. "*Addressing the first question, we argued that Porter's generic strategies of differentiation and cost leadership will still be applicable to e-business firms in a broad sense*" (Kim, Nam & Stimpert, 2004). The model is also simple and can focus the user's strategic thinking.

Criticisms:

There are only three strategies, this means the model can miss specifics and nuances of business and their environment also short-term environmental factors that temporally affect a business. Some environments will have less feasibility to differentiate based on cost especially in the retail re-sale sector where sellers are

bound by businesses wholesale pricing which do not differ from retailer to retailer. Also, in some markets it may be difficult to differentiate based on products so sellers will have to concentrate strategy based on other less tangible factors such as customer service and customer experience.

Applicability to the Seller Community:

This model has some level of applicability to the seller communities especially as the sellers operate in an environment where differentiation is key to gaining a sale and costs/process are one of the leavers for gaining that sale. However, the models are also focused on the businesses that manufacture their own products, as such the seller should think of cost as their pricing strategy and differentiation as a concept covering all aspects of gaining the "buy-button" i.e. sponsored products, standout product listings that gain trust, generating positive feedback and providing answers to customers Q&A. The most prevalent strategy when selling on an online marketplace will be differentiation ones as it is difficult to have a cost competitive strategy, selling the same retail product as a competitor. Kim et al (2004) did confirm this in a 2004 study in an e-commerce setting "*we propose that differentiation will show superior performance to cost leadership in e-business contexts*" (Kim, et al., 2004).

2.2.2.6 Product Lifecycle (PLC) Model

Figure 17: Product Lifecycle PLC Model
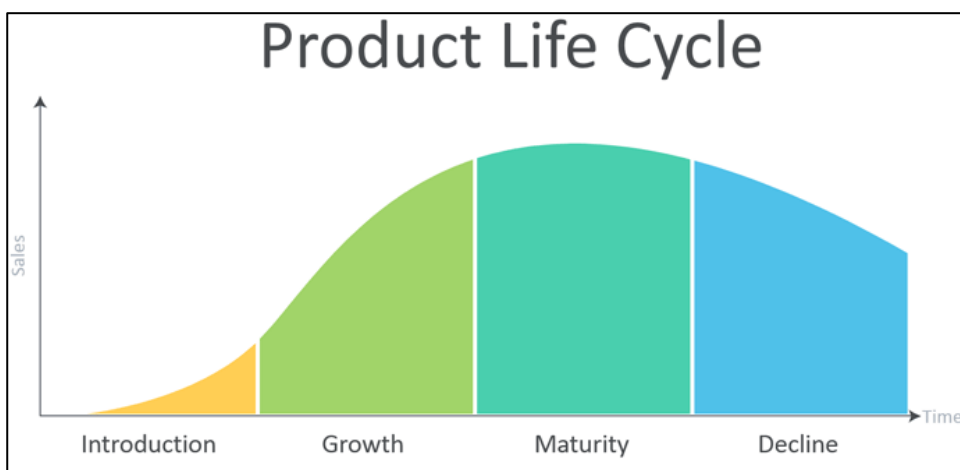
Source: The Researcher adapted from Kotler & Keller (2019, p. 440)

The product lifecycle model assumes that all products have a start and end of life, some are short, some are long and if a business wants to extend a products life they can do so through various strategies to extend, such as discounting, augmenting and updating the product among others.

The lifecycle is described in Kotler & Keller (2019) as **1. Introduction:** where the product is launched and early adopters will buy the product, this stage is typically visualized as low sales volume, however, some products will have its highest sales in the introduction phase. Products such as video games and movies can

have the highest sales in the week the product launches. **2. Growth**: which is described as a period of rapid growth and profitability improvement, this period can happen very quickly or slowly dependent on the level of adoption. This stage can be influenced with marketing tactics. **3. Maturity**: a slowdown phase of sales because the product has achieved acceptance. This stage the product has saturated a large population of potential buyers. **4. Decline**: this stage is when the product has gained the greatest number of potential buyers and sales begin to fall and eventually the product discontinues. This stage can be extended with various marketing tactics such as pricing / discounting / augmentation and enhancement among others. This lifecycle is very product specific; it can be short or long and come in various different shapes. The sales profile can also pick up and slow down as marketing decisions influence the sales patterns.

Benefits:

The model is useful when making decisions about products at various stages of their lifecycle. It helps to focus the marketing strategy and tactics that best fit the current situation of the product. It can provide a longer term strategy for products and even allow the business to recognize when they need to invoke 'extension' tactics to lengthen certain stages i.e. by running promotions such as end of season sales.

Criticisms:

The PLC doesn't consider any market or competitor forces and their impact on the PLC. In this way the model can be seen as overly simple. In a study in Shankar, Carpenter & Krishnamurthi (1999) they found that "*diffusion of competitors affects brands differently, according to their stage of life cycle entry*" (Shankar, et al., 1999). However, this competitor affect isn't considered in the model's theory. One other critique is that the PLC is very different for different products and monitoring which stage the product is at is very subjective. As previously mentioned, market forces could influence sales in a way the user could misinterpret the stage of the product through the lifecycle.

Applicability to the Seller Community:

The model has application in the marketplace seller context. The seller can apply different marketing tactics at different stages of the PLC. Analysis of the product's sales would help the seller to identify what stage of the lifecycle their product is tracking at and therefore what marketing decisions to make at that time or ahead of time.

The PLC is highly product specific, if a seller has a high volume of different product listings it would be very difficult to manage individuals marketing decisions about individual products. It is more likely that sellers would monitor signals that product's sales have started to decline, or inventory has become stale before making specific marketing decisions. Some big data analysis can help sellers identify what products to focus on if these signals begin to appear rather than micromanaging every product they sell. This PLC model

may be more suited to sellers managing their "stars" or "Cash Cow" products (see BCG Matrix section) as they are the products that need attention.

2.2.2.7 Customer Segmentation Targeting and Positioning (STP)

This concept is described in Kotler & Keller (2019) as the key stage of the marketing value chain before customer communications are initiated. Segmentation involves using customer and market data and breaking it down into segments. These segments comprise of groups of customers who share similar characteristics, behaviors, needs and wants. The user would then decide which segments that they would like to target. Segmentation can be done on many different levels and can cover things such as demographics, geography, psychographics and purchasing behaviors to name a few.

Targeting consists of a decision as to which segments are to be targeted, these decisions can be based on a number of company priorities such as; needs, attractiveness, profitability relating to the segment as well as the overall strategic aims of the company. i.e. new customers can be targeted in accordance to strategic aims and aspirations. The final stage of this model is positioning. The company must decide where it wants to position itself in the minds of its customers through things such as brand, quality and perceived value of the brand or what product brings to the customer. This positioning will determine the types of products, brand strategy and marketing communications the company aims at its customers as well as the communications strategy to reach them. A study of SMEs conducted by Reijonen (2010), showed that although a uniform approach to marketing strategy could not be determined, there were specific characteristics of marketing strategy discussed in the experience of the SME. These were; Segmentation, targeting, positioning, customer acquisition, customer relationship creating / management / customer retention and competitive advantage. This suggests that, regardless of the size of the business, STP is strategically important for strategic marketing planning and focus.

Benefits:

This approach is highly targeted and allows the user to reach specific customer audiences by firstly understanding their needs and then gearing marketing strategy around them. The segmentation strategy also allows for strategic targeting to achieving certain goals for example if a business needs to target its most profitable product to its most profitable customer to generate some short-term cash flow, they can do this via segmentation and targeting. Product development and targeted marketing communications are also key benefits, companies can adapt and develop products by understanding the users' needs and target communications if they understand where to reach their segments in the market.

Criticisms:

The model assumes the user has access to their customers full data or has access to conduct customer research in order to conduct STP analysis. It also assumes that the user has the ability to position itself

within the minds of the customer in terms of quality and branding. Brand positioning for a small retailer on a marketplace can be difficult if the seller brand is obscured on the marketplace and therefore is lost in the noise of other seller brands. The customer may also think they are buying from the marketplace itself and not from the small seller using the platform.

Applicability to the Seller Community:

In line with the criticism above, the marketplace seller community may not have as much access to customer data in order to do STP analysis. for example, the demographic, socio-economic and geographic details may not be accessible to the seller. However, there are known data points that are available to the seller such as customer feedbacks, customer questions and customer photographs that are posted to the product listings that can be used to understand the customer, although not in as much detail.

2.2.2.8 Traditional Marketing Gaps

It is clear from the evaluation that there are a number of identified gaps in the use of the traditional marketing models in the context of online marketplace selling. These gaps are summarized below:

- The Marketing Mix: the model lacks an overlay of the environment in which the sellers operate, there are a great number of environmental nuances that are beyond the control of the seller and therefore the strategies that are formulated by the marketing mix need to be more specific to the elements within the control of the seller.

- SWOT/PEST: the model is very useful to sellers to use as a marketing strategy tool. The model is highly applicable in the seller context. However, some of the analysis required to do an in-depth detailed SWOT/ PEST may require resources to conduct detailed market research to ensure the analysis is robust. Resources that the smaller sellers may lack.

- BCG Model: the BCG model is very useful to identify products that need attention either because they are revenue generators (Cash Cows and Stars) or because they require attention (Dogs and Question Marks). The model is not useful to micromanage a large product portfolio and the seller may find it useful to have reporting that identifies these outliers

- Ansoff's Matrix: the model is not wholly applicable to the seller community, it assumes that the user is a product manufacturer and that there are multiple marketplaces open to expansion. Neither of which are likely in the seller community unless the seller sells products they manufacture rather than products they act as a retailer for. New markets are only available when new platforms come along as most marketplaces have few limits in terms of global or continental markets.

- Porters Generic Strategies: similar to Ansoffs matrix, the generic strategies are assuming the business is a manufacturer of their own goods so has limited applicability, the differential strategies should therefore be focused in the areas the sellers have control over to influence a sale as well as cost/pricing strategies to allow them to remain competitive.

- Product Lifecycle (PLC): It would be very complex to manage every product individually to map its position on the lifecycle. It is more realistic for sellers to be making decisions based on outlier products that meet signals of decline or increase in sales. It is also more realistic for sellers to manage their "star" or "cash cow" products using this model as these are the products that are contributing the most to the business and profitability.

- Customer Segmentation Targeting and Positioning (STP): this is a key model that is used in marketing strategy formulation and is one of the most well-known. The issue arises when applying this to the marketplace seller organization is that they may not have full access to the same level of customer data as a traditional marketing company may have. Limitations on conducting customer research may also exist and they are reliant on the customer feedback data as a proxy, which has limitations.

2.2.3 Marketing Strategy: Online Marketing

In order for an online seller to remain competitive the online element of the environment must not be forgotten. Many of the traditional marketing models that were discussed in the previous section were conceived before online selling was a factor. When considering what marketing strategy to adopt, the user must not forget the online element of their environment. In many of the models the "market" is seen as an individual multi-channel, multi country concept that businesses operate in and can enter. However, the internet and in particular the online marketplace can be seen as one homogenous market that is occupied by a huge population of businesses.

The table below shows the researcher's impression of the appropriateness of each of the marketing models discussed in the literature and their applicability to the research context. This evaluation was conducted pre-research in order to explore some possibilities for research avenues before the research was conducted.

Table 13 The Researcher's Evaluation of Appropriateness of Traditional Models on Online Settings

Model	Appropriate for Online?	Evaluation
The Marketing Mix	Yes ✓	The marketing mix has weathered the test of time and is applicable in the majority of settings
SWOT/PEST	Yes ✓	Applicable to most if not all businesses and allows the user to outline the micro and macro influencing factors prior to making any strategic plans.
BCG Model	Yes ✓	Specific to product and price marketing. The Model is applicable however is difficult to implement if managing many products or product lines.
Ansoff's Matrix	Yes ✓ with limitations ✗	Assuming the business is a manufacturer of their own goods so has limited applicability. The model assumes that alternative marketplaces are open to sell into but not in the "online marketplace" market itself.
Porters Generic Strategies	Yes ✓ with limitations ✗	Assuming the business is a manufacturer of their own goods so has limited applicability. Only applicable to areas that a business can influence as they cannot influence the marketplace.
Product Lifecycle (PLC)	Yes ✓	The model is applicable and allows the user to adapt marketing strategy based on where the product is in its lifecycle. Similar to other models is very individualistic and would be difficult to manage many products using this model.

Source: The Researcher

2.2.4 Marketing Strategy: Sponsored Products / Paid for Search Ranking

The world of marketing in an online platform is much nuanced, the seller does not have access to traditional marketing methods such as direct marketing (email, mailshots etc.) and indirect and blanket marketing tactics (TV advertising, newspaper ads etc.) are both highly inappropriate for the context. Sellers must opt for marketing tools and tactics that they do have access to. One of the most targeted and effective are sponsored products. This is where the seller pays for higher search rankings for their products to appear on a customer recommended list. This gives the seller a favorable position on the search ranking and can even give the sellers a featured 'stand out' space at the top of search results and top ranking on search engines. Statistics produced by Statista suggest that in 2019 the return on ad spend (ROAS) was perceived to be most valuable from Sponsored products with 55% of respondents to a survey rating it the best method of gaining return. This was closely followed by sponsored brands and sponsored display (which is features on search headings). This infers that Amazon sponsorship across the three methods is the most effective way of gaining return for a seller. However, there are two negatives from this data; 1. 45% of respondents did not think sponsored products was having valuable return and 2. The research does not show how much return was generated or effort put into the initiative form a resources perspective. These are both gaps seen in the literature that are an opportunity to study further. For example; could the return on investment depend on how much competition the sponsorship has i.e. competitors following the exact same strategy, meaning adding sponsorship just levels the playing field? Could the return on investment depend on the customer i.e. the consumer looks past the sponsored listing because it may "by-pass" the relevant products that are displayed lower in the listing, these relevant products being a more suitable

choice for the customer? These could be two of many possibilities that can be explored in this research to close the identified gap.

Figure 18: Return on Advertising spend (ROAS) on Amazon Features Spending 2019 in the US
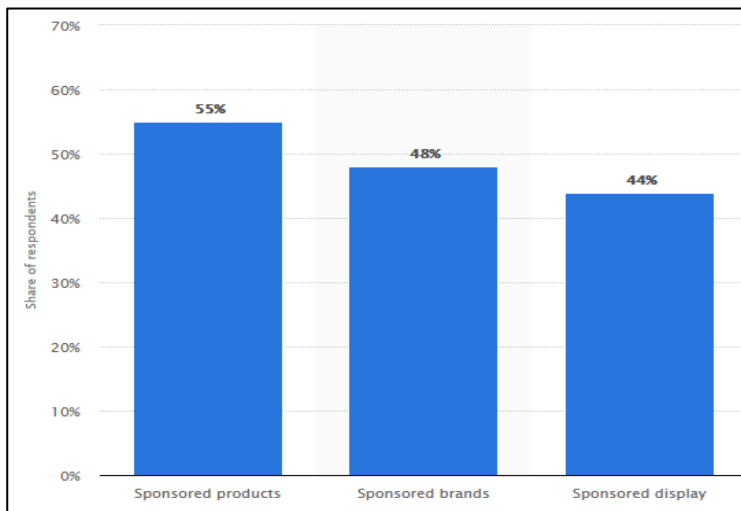
Source: (Statista, 2020)

2.2.5 Marketing Strategy: Social Media Marketing

As marketing communications become more competitive and technology becomes more advance, marketers have adapted their marketing communications approach from that of a non-personal to a more personal approach. The perfect medium for marketers to achieve the personal targeted approach to marketing communications is the use of social media. "*Social media provides organizations with many opportunities. It provides a new and powerful low-cost marketing channel that can be harnessed to increase customer awareness of organizations and associated brands, products and services*" (Bekmamedova & Shanks, 2014). Kotler and Keller (2019) suggest that there are 3 distinct benefits to the use of social media:

1. **Interaction**: companies can engage directly with targeted customers.
2. **Market offerings and brands**: can be personalized as companies spread their messages in a relaxed and conversational way.
3. **Personalization:** makes companies 'real' to consumers' everyday lives.

Figure 19: Modern Marketing Communications
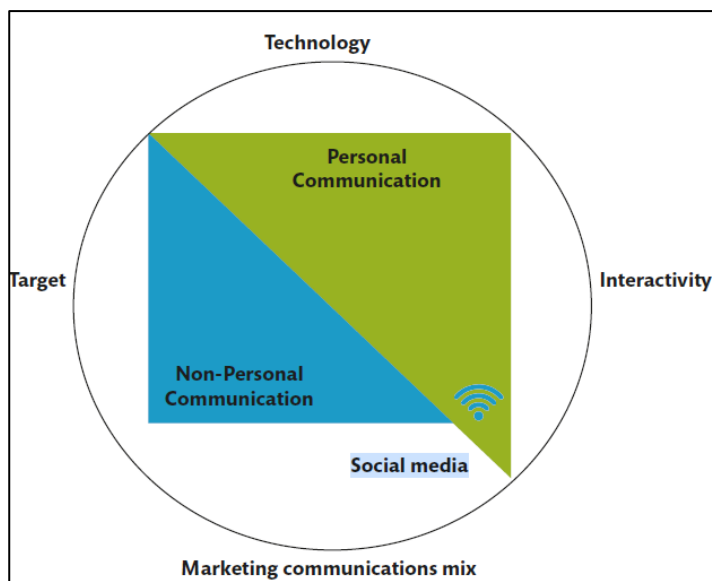
Source: (Kotler & Keller, 2019, p. 592)

Social media marketing can be a key media source for an online sellers marketing strategy, it can allow them to increase consumer exposure for their products increasing brand awareness, brand equity, and brand trust in a specific targeted way. A social media campaign can be highly targeted, for example using Facebook analytics a marketer can target customers based on attributes including demographics, interests, location, and even behavior. By doing this the marketer can filter out those who are less likely to be interested in their brand or products. Advertising will then appear in their news feed and customer can also comment and tag or share with their contacts. Marketers can use the data collected from the advertising campaigns to instantly monitor success, through the number of likes, shares and clicks the advertising is getting. Research has shown that social media marketing spends rose significantly from £0.27 billion in 2011 to £3.04 billion in 2018 see figure 20.

Figure 20: Social Media Advertising Spending (UK) 2011-18
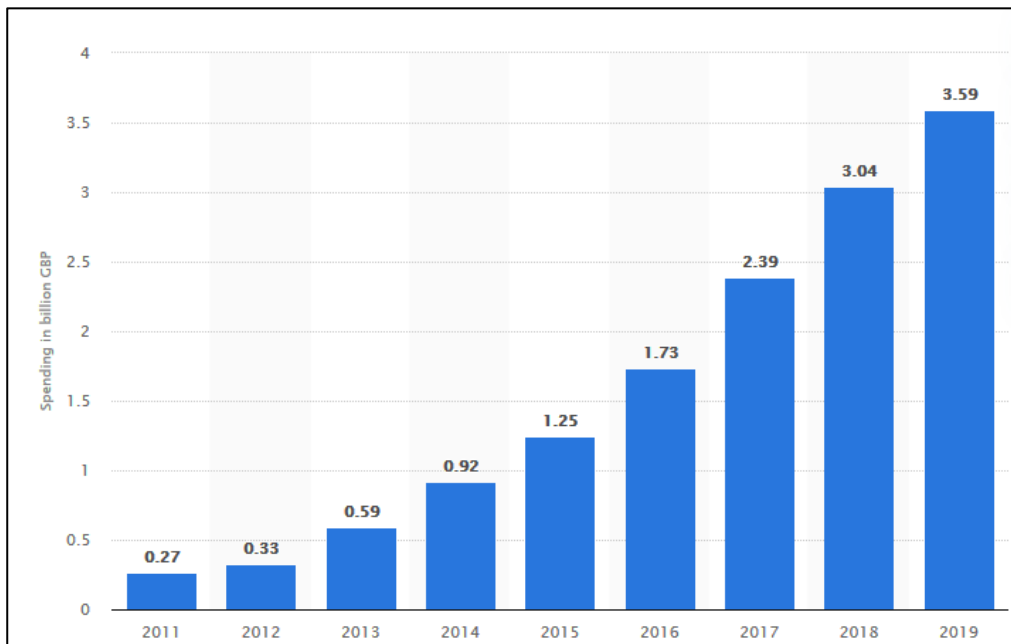
Source: (IAB UK; PwC, 2019)

Marketplace sellers have the option to use social media to directly advertise to a certain target demographic. However, in order to achieve this, customer data is required in the form of internet cookies. Cookies are a log of customer movements through different webpages, social media apps also use cookies to target their ads at their users. Social media users have become accustomed to targeted advertising but increasingly they are becoming concerned about privacy. "*As sponsored advertisements on Facebook are growing in both volume and frequency on Facebook, potential consumer privacy or intrusiveness concerns could also increase*" (Lin & Kim, 2016). Although this notion was found not to be the case in a study conducted by Shareef, Mukerji, Dwivedi, Rana & Islam (2019), when advertising was liked or shared by peers, users were found not to be irritated or concerned about the ads. "*Consumers do not feel any Irritation while developing opinions on the advertising value if the promotional information about the product is generated, communicated and shared by their peers*". (Shareef, et al., 2019). Research has been conducted by Statista (2019), into the success rate of targeted social media advertising in terms of clicking through the advertisement and in 2019 the 79% of social media users made a purchase based on online or social media advertisement with 62% purchasing on up to 50% of advertising they clicked through. This demonstrates how effective social media advertising could be for an online marketplace seller.

2.2.6 Marketing Strategy: Evolution of Marketing Strategy

Aside from the foundation of traditional marketing and the newer areas of marketing focus such as online marketing and social media marketing there are new ways of thinking about marketing strategy emerging. Sheth (2021) propose six new areas that have emerged as new thinking in the area of marketing strategy. These are:

1. **Creating Value for Customers** – winning customers by providing a superior offer in product, service or experience.
2. **Brand Value** – brands are becoming more real and the intangible value they bring to the customer and the business itself cannot be underestimated.
3. **Discipline of Selling** - Selling and the science of selling as a method of persuasion is a rising area of research. Much like the science of buying the selling is becoming an area of focus of researchers.
4. **Science of Pricing** - research into industry derived concepts such as psychological pricing; price deals (two for one, for example) and dynamic pricing are becoming more popular areas of study. The perception of price on quality and brand perception is also an area of focus.
5. **Reverse Marketing** – In contrast to traditional buying where the goods are manufactured, stored, displayed and bought by the customer at the point of sale physical store. Now the purchase is led by the customer buying online and the logistics and manufacture are worked back from this demand. Supply and manufacture therefore need to be more integrated.
6. **Role of Marketing in Society** – the interdependence between marketing and society is a focus of newer studies.

This research has ties with focus on these areas in modern strategic marketing strategy, in particular points 1, 3, 4 and 5 shown above. It is anticipated that the marketplace seller would follow their marketplace in the area of customer focus and emphasis on customer experience. The subjects of the science of selling and reverse marketing are particularly relevant given the environment.

2.2.7 Marketing Strategy: Marketing Education in Universities

As discussed in section 2.1.7 (Big Data Marketing Capabilities) it is essential in a marketplace seller organization to have analytical skills and capabilities in either the owner in a sole trader scenario, or in the organization's personnel if the organization does not have a distinct marketing or analytics function. In a 2019 study of the postgraduate courses offered by 28 UK top ranked universities, Nunan & Di Domenico (2019) found that the courses offered were split into three categories. Two of the categories were focused on the marketing and management areas using written reports or dissertations as a method of student performance evaluation. There was, however, one category offering a more applied technical course that used statistical programming and production of dashboards as an evaluation method. This Analysis course

category combines the marketing and management theory with the more technical and systems-based assessment. It is this type of course that is recommended for a candidate to be successful in the big data era and there is a clear need to adapt current educational courses to fit the modern environment.

Table 14: Composition of UK Postgraduate Marketing Courses

Attributes	Marketing Research Courses	Research methods Courses	Analytics Courses
Overall Focus	Qualitative and Quantitative collection & analysis of data	Qualitative and Quantitative collection & analysis of data	Identification of existing secondary data
Key Methods	Surveys, Interviews, Focus Groups	Surveys, Interviews, Experimental Designs	Analysis of Unstructured Data
Key Learning Objectives	Develop skills necessary to support marketing decision making	Develop skills necessary to complete an academic research project or dissertation	Learning to identify and analyze existing data sets to optimize marketing activities within an organization.
Examples of Software tools used	SPSS, Excel	SPSS, Excel	R, Python
Communication techniques	Report	Dissertation / Project	Dashboards
Faculty of Subject area	Marketing	Management	Marketing or Information Systems/ Computing

Source: (Nunan & Di Domenico, 2019)

When considering this in the context of this research, the seller may find it difficult in terms of the skills within their team particularly if they have a small workforce. Due to the education setting not being fully up to speed it may be more prudent for the workforce to retrain or upskill in this more technical area in order to fully realize the benefits of big data for leveraging marketing value. This would be a key point of understanding in the research, were does the analysis and marketing capability come from in the seller organization and is education keeping up with the trends in big data.

2.3 Online Marketplaces

This section gives an overview of online marketplaces and the marketplace seller in the online marketplace setting. The section will cover; the online marketplace, the online seller including the element of entrepreneurship, difficulties with customer satisfaction and brand awareness, marketplace competition and finally inventory and shipping.

One of the largest companies who captures and leverages big data from its customers and products is Amazon. Amazon, globally is one of the key organizations in the world of big data. Amazon not only offers extensive cloud-based data services for its clients in its Amazon Web services (AWS) business, but the company has an extensive big data led retail business through its main retail website. Amazon has led the way in the online arena using the data it collects from its customers and suppliers to optimize the offering to their customers, through recommendations, adaptive pricing, customer reviews and low-cost fast delivery using data to optimize product availability. This has led to Amazon dominating the e-commerce

industry, now owning 27% of the UK market share (Mintel 2020). Amazon not only retails its own products, but it allows a great number of independent sellers to use their platform, for example in Europe for Amazon "almost half of all items sold are now through marketplace sellers" (Mintel 2016). The online marketplace platforms such as Amazon have gathered a large number of independent small sellers, who sell a wide range and variety of goods. The Marketplace platforms also attract numbers of larger scale retailers who utilize the online marketplace to make their products available to the large customer base these platforms have amassed.

This section of the literature review will focus on the marketplace seller and their marketing strategy options in the environment or marketplace that they do not have control over and is highly competitive.

2.3.1 Online Marketplaces: The Seller Community and Entrepreneurship

The online marketplace seller profile varies from large multi-nationals to small single employee businesses operated by entrepreneurs. This research will be focused on the smaller business (Small as defined by the (European Commission, 2003), i.e organizations with less than 50 employees and turnover less than €10M) and so the literature and research surrounding the entrepreneur will be discussed.

In order to understand if the online marketplace seller organization is either a traditional marketing or one led by entrepreneurship, we must first understand the demographics of the seller before applying some of the key concepts seen in the literature. The following section will examine the makeup of the seller market and aim to understand if the seller communities are following a more traditional marketing methodology or are adopting a more entrepreneurial marketing approach, by assessing the prominent literature and how the seller community operation complies with each of the concepts, leading to identified literature gaps that may been seen.

Seller Demographics

Table 15 below shows the global amazon seller demographics that were found in the annual Amazon seller report conducted by Jungle-Scout, (2020) who are a big data provider servicing the seller communities. The demographic data shows that the majority of Amazon sellers who responded to the survey sell private label products (71%), are in some other form of full and part time work or education (58%) and are educated to a bachelor's degree or higher level (68%). This infers that the average seller sells on marketplaces part time in addition to working or studying with only 21% of respondents indicating this was a full-time business pursuit. It can also be inferred from this that the seller may have low capabilities in terms of technology in order to leverage big data for marketing purposes and may have a lower skills capability if their own skills are lacking or they do not have employees with skills in marketing or big data analytics. Sellers may rely on their own skills and capabilities in a more entrepreneurial way, when considering marketing strategy for their business in these environments.

Table 15: Global Amazon Seller Demographics

Demographic	Key Statistics	
Gender	69% Male, 26% Female, 5% prefer not to answer or other	
Age	8% aged 18-24 27% aged 35-44 12% aged 55-64 <1% aged 80+	30% aged 25-34 18% aged 45-54 5% aged 65-80
Location	52% United States 8% China 5% Canada 11% All other countries	13% EU 7% United Kingdom 4% India
Education	17% High school is highest qualification 2% Trade or vocational qualification 13% Post high school further education 43% Bachelor's degree 23% Master's degree 3% Doctorate	
Employment Status	37% Full time work 18% Part time work 4% Parental leave or other leave 12% Other	21% Full time online seller 5% Retired 3% Student
Business Model	71% Private label 35% Discounter / 2nd hand selling 26% Wholesale 8% Drop shipping 6% Homemade / Handmade *sellers could sell in multiple groups*	
Selling method	66% Fulfilment by Marketplace provider 29% Mixed marketplace fulfilment and self fulfilment 6% self fulfilment	
Turnover per month	24% <$1000 22% $1,000-$5,000 13% $5,000-$10,000 15% $10,000-$25,000 9% $25,000-$50,000 15% $50,000 or more 2% unknown	

Source: Adapted from (JungleScout, 2020)

Entrepreneurial Marketing

Considering the seller demographics that have been discussed, the notion of entrepreneurial marketing should be considered. Entrepreneurial Marketing (EM) is summarized by Peterson (2020) as "*the proactive identification and exploitation of opportunities for winning profitable customers through innovative approaches*" (Peterson, 2020). When presenting a consolidation of EM literature Peterson, identified that the literature typically asserts that businesses are more likely to adopt an EM style of marketing if they have high-growth strategies in high capability environments. However, Peterson also identified six other influencers. These were; 1, the age or growth stage of the business. 2, the relationships and networks that the business had, 3, the competitive environment. 4, globalization. 5, society and finally 6, public policy.

This six-dimension model is similar to models produced by other entrepreneurial marketing writers. All writers agree that there are both macro and micro environmental considerations and that there are dimensions from both the entrepreneurial and the marketing world. These models are key to understanding if the approach to marketing adopted by the online marketplace seller is one of EM or a traditional marketing approach. The other key research articles that are applicable to the context of this research, are discussed below and an attempt to assess the extent to which it applies to the online marketplace seller will be made.

Research Conducted into Entrepreneurial Marketing

During the past decade, the term entrepreneurial marketing has witnessed far greater use, which suggests a growing sense of legitimization among scholars (Hansen, Deacon, Pascal & Sethna, 2019). Table 16 presents a summary of key pieces of research conducted in the area of entrepreneurial marketing, limiting the selected research texts to those sectors and small companies linked to the research context.

Table 16: Summary of Key Research Conducted into Entrepreneurial Marketing

Researcher(s)	Key Findings
Peterson, (2020)	In a literature review Peterson found that the consensus was that businesses were more likely to adopt EM if they had a high growth strategy and operated in a high capability environment. Additional findings were 6 additional influencers; 1, the age or growth stage of the business. 2, the relationships and networks that the business had, 3, the competitive environment. 4, globalization. 5, society and 6, public policy.
Nouri & Ahmady (2018)	Six core themes identified when interviewing 22 high-tech companies these six core themes covered Marketing mix, marketing strategy. This is discussed in the next section.
Morris, et al., (2002)	Consolidation of the literature leads to a seven-dimension model that brings together the key elements of the market and entrepreneur dimensions of the literature. The model is a clear concise overview of the key characteristics, covering the cultural, strategic and tactical elements of marketing conduct.
Hansen, et al., (2019)	The paper produces a model that synthesizes the literature into a conceptual framework. The framework has a macro and micro environment. The macro environmental considerations. The micro element is loosely based on Porter's value chain proposing three stages; 1. Antecedents, 2. Functions & processes leading to 3. Outcomes.
Aremu & Bamiduro, (2012)	The study that there was a statistical relationship with three distinct things and the performance of the entrepreneurial businesses 1. Use of the marketing mix in marketing practice, 2. Spend in advertising and 3. Longer term planning and development.

In a study conducted by Nouri & Ahmady (2018) where they interviewed 22 high-tech companies, they found that entrepreneurs discussed and conceptualized marketing in six core themes, these can be seen below:

1. **Marketing mix decisions** (decisions regarding product, place, promotion, and price).
2. **Core marketing decisions** (decisions about marketing strategy, targeting, market segmentation)
3. **Market entry decisions** (decisions about resources, barriers, competition, exporting)
4. **Opportunity-related decisions** (decisions about opportunity identification, evaluation, exploitation)

5. **Innovation decisions**.

6. **Growth decisions** (market penetration, market development, product expansion, diversification, segmentation).

These findings were wholly derived from the real experience and perspective of the entrepreneur and not from an academic or theoretical perspective. They show that the strategic marketing mind of the entrepreneur is not as complex or compartmentalized as much of the academic frameworks are.

The applicability of these findings on the research context is mixed. The seller as the entrepreneur may have points one and two (marketing mix decisions and core marketing decisions) in their scope as they have control over these elements of their marketing strategy. Market entry may be limited to what regions sellers can sell into or what platforms to sell on, but this area is limited if all major marketplaces are used and if selling into all regions of that marketplace. Points 4-6 are again all within the control of the seller and can form part of their marketing strategy portfolio, however, point 6 of the market entry part may be limited. It is worthy of note, that the seller may have offline sales or an offline part of their business operation, therefore all six elements can be adopted even if they are limited for online marketplace selling, they may not be limited for offline selling or selling via other means.

Hansen, et al., (2019) like Peterson (2020) proposed an EM concept model that comprised of both macro and micro environment considerations. The macro environment considerations are typical of those seen in marketing models such as PEST modeling. The micro environmental consideration is based on a value chain concept starting with antecedents which relate to the 'actors' and the characteristics of the organization moving to functions & processes which cover the marketing and entrepreneurial considerations leading to eventual outcomes. The criticism of this model is that the model is very conceptual and not at all descriptive. It has little practical application for any user outside the academic space and it doesn't allow the reader to make an evaluation of a single organization to determine its characteristics or critical success factors. However, it is useful to understand the literature, its concepts and how they interlink with each other. This model condenses the literature down to its three key elements and allows the reader to see the commonalities that most EM literature has including leveraging opportunity, innovation which all lead to value creation. It is also important to note that Hansen et al., (2019) assert that EM marketing in small organizations differs from marketing seen in large organizations. They assert that EM offers something unique to the customer, which is more specific and tailored, this all emerges from the combination of entrepreneurship and marketing.

Figure 21: Framework for the Marketing-Entrepreneurship Interface
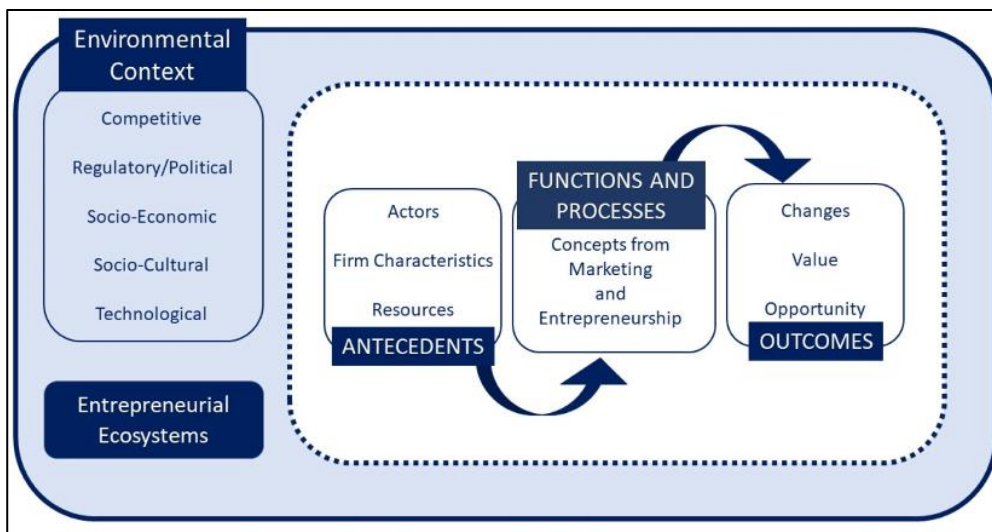
Source: (Hansen, et al., 2019)

Morris, Schindehutte & LaForge (2002), similar to Hansen, proposed a seven-dimension framework that comprises of elements from both the entrepreneurial and the marketing domains of the literature. Dimensions, including proactiveness, innovativeness, risk-taking and opportunity driven are all derived from entrepreneurial domain of the literature with customer intensity, resource leverage and value creation being from the marketing domain. An explanation of each of the elements can be seen in table 17 below.

Table 17: Entrepreneurial Marketing; Seven Dimension Framework Morris et al (2002)

At Which Level Marketing is Applied			
Element of EM	**Marketing as Culture**	**Marketing as Strategy**	**Marketing Tactics**
Opportunity Driven	A philosophy of continuous recognition and pursuit of opportunity without regard to resources controlled.	Strategies focusing on new products and markets based on expanded opportunity horizon.	Real-time proactive intelligence to find untapped opportunities. Alternative methodologies to discover unmet needs. Rapid learning from market experiments so to redefine opportunities.
Proactiveness	Action orientation; organization of agent of change, redefining industry practices and challenging assumptions.	Defining new market positions; leadership of customer and market.	Speedy development and launch of new products and marketing approaches. Ongoing n experimentation with untested guerilla and viral tactics.
Innovation Focused	Philosophy that promotes different solutions, leading the customer and the firm as innovation factory; spirit of healthy dissatisfaction	Continuously redefining these product and market context; strategy to manage a portfolio of innovations.	Active participation of marketing on firms developing major innovations; highly inventive approaches to new product and service development.
Risk Management	Comfort level with random variance and ambiguity.	Managed risk through higher levels of innovation and more rapid organizational learning.	Employment of initiatives to mitigate risks through alliances, test markets, trial launches, lead user research.

Customer Intensity	Reinforce passion for the customer; marketer as an agent for the customer.	Strategic customer focused interaction, bringing the firm's planning and operations.	Customization by segmentation and niche marketing, creating relationship management tactics. Incentives to encourage organizational learning.
Resource Leveraging	Resourcefulness is doing more with less; marketer as middleman tapping network of non-imitable competencies.	Leveraging drives strategic decisions regarding core processes, outsourcing strategic alliances.	Exploit underutilized resources and skills, creative methods for contracting, bartering, sharing, borrowing, renting and outsourcing.
Value Creation	Vigilance in seeking novel sources of value throughout the firm.	Value based strategies designed around customer intimacy.	Continuous exploration for novel sources of customer value in each element of the marketing mix.

Source: (Morris, et al., 2002)

Morris et al (2002) affirms that EM is not a panacea and its adoption / application in an organization will vary depending on is macro environment. For example, if an organization operates in an environment with low competition, low regulatory impact, low adoption of change and innovation, then risk taking proactivity, innovation and opportunity identification may not be a dominant force and therefore entrepreneurial marketing may not be a feature in the organization. Risk vs reward is a key element of the macro environment the organization is operating in. It is unclear what type of environment the marketplace seller is operating in as it would depend on the specific circumstances of the organization. It is worthy of note, however, that the seller's resources in the area of big-data and the marketing tools open to their use, are controlled by the marketplaces themselves. Analysis on the organizations operating on online marketplaces is a gap in the literature. Is this environment conducive to innovation and risk taking etc. and as such is it a supportive EM environment is a key question.

A study conducted by Aremu & Bamiduro, (2012), found that there was a statistical relationship with three distinct things and the performance of the entrepreneurial businesses 1. Use of the marketing mix in marketing practice, 2. Spend in advertising and 3. Longer term planning and development. This is one of the simplest postpositions when compared with the other writers. This research was conducted on bricks and mortar businesses but can also be assessed to its applicability to the marketplace seller community. Its over simplicity could, however, lead to identifying a business as an entrepreneurial business when it lacks some of the characteristics of the models proposed by other writers such as innovation and risk taking. This notion can be moved forward into the research to assess if these three things or more are also relevant and present characteristics of the marketplace seller community.

Traditional Marketing vs Entrepreneurial Marketing
The literature shows consensus that traditional marketing differs substantially from entrepreneurial marketing. Stokes, (2000) proposed these differences across four key principals, orientation or philosophy, strategy, marketing method and marketing intelligence. These are outlined below.

Table 18: Traditional Marketing vs Entrepreneurial Marketing in the Online Seller Context

	Traditional Marketing	**Entrepreneurial Marketing**
Philosophy	Customer-centric. Top down approach to strategy. Proactive and reactive marketing strategy.	Led by innovation. Bottom up approach to strategy. Proactive marketing strategy.
Approach to Strategy	Traditional approach is to identify customer demographics and segmenting. Using this segmentation, the marketing strategy is a targeted approach. Brand and products are defined market positioning. Marketing messages are targeted but not wholly personalized.	Led by opportunity identification, customer attraction and retention. Customer building is led by innovation and creativity. Marketing messaging is wholly personal and bespoke to each customer.
Marketing Methods	Traditional marketing mix methods. Heavy in customer messaging (promotion and advertising). Discounting, sales, loyalty schemes,	Marketing strategy will be derived by the entrepreneur owner / manager. Tactics to attract new business is the primary method.
Data / Intelligence	Formal data intelligence gathering. The customer is the source of the data gathering. Data is primary data directly from the customer.	Data is also from the customer, however, approach is more creative and innovative. Larger use of metadata, for example customer behavior data, predictive analysis.

Adapted from: (Stokes, 2000)

From table 18 above, it can be asserted that the subject of this research, the online marketplace seller, it is difficult to place them in either category. Below the four principals are outlined and an analysis as to the most appropriate categorization of the online seller.

- **Philosophy**: innovation in the marketplace is limited, however, the seller would be free to innovate in the product area. It could be determined that the seller could be either customer –centric or innovation led depending on whether they sell their own products or are a re-seller of branded products.

- **Approach to Strategy**: the strategy of the online seller would be to take full advantage of the available features of the marketplaces that they operate, so more bespoke offerings through marketplace features such as bespoke search results, bespoke product recommendations and predictive algorithms are all features the sellers can take advantage of. As such the strategy is leaning more towards entrepreneurial marketing.

- **Marketing Methods**: Methods to attract new business on the EM side will be the most accessible tactics available to the marketplace seller. Tactics such as, sponsored searches, featured products, discounting, and tactics to optimize the search result favorability. More traditional methods such as messaging (emails, flyers, traditional advertising etc.) is not available to the marketplace seller.

- **Data / Intelligence**: the seller may be steered more towards the entrepreneurial marketing space on data and intelligence. Data from the online marketplace may be more sophisticated than the data collected via traditional method. Data publicly available such as customer ratings, customer feedback,

customer photos are already slightly more valuable than can be collected via own website or bricks and mortar settings.

It is difficult to pigeon-hole the marketplace seller to either of these categories. The main issue arises from the operating environment. The seller has no control over the marketplace, its features or it's branding etc. it also has no control over the search algorithm, the recommendations and the customer services it offers to customers. The seller is very restricted on what it can control and what marketing techniques it can adopt, therefore it is more likely that the seller community adopt a mix of these two approaches and are not wholly linked to one particular category.

Formal vs Informal Planning

Many studies have been conducted into whether strategic planning has a positive impact on business performance. George, Walker & Monster (2019) conducted a meta-analysis of 31 studies and found that strategic planning had a moderate, and significant impact on organizational performance in the private and public sectors, across international settings. They recommend that strategic planning be part of the standard managerial approaches in contemporary organizations. Despite this consensus, few studies have concentrated solely on the small business, they tend to be skewed towards larger business who have higher organizational capabilities. A study that was purely focused on small businesses was conducted by Gomera, Chinyamurindi & Mishi (2018) found that there was a positive relationship between strategy formulation and organizational, financial performance in SMEs. In contrast, research conducted by Allred, Addams & Chakraborty (2007) found that there was a mixed view of small businesses on how much time is invested into formal vs informal planning. They asserted that there were ideal times for doing both types of plans. Formal planning being things such as; business plans, financial plans, marketing plans and strategic goals. These are then supplemented by informal plans which tend to be key decisions that happened in reaction to situations or competitive stimuli. Allred, et al., (2007) suggest that the smaller business is more reliant on informal planning and decisions than larger companies due to their needs to do so being greater. *"To continue growing in highly competitive, dynamic markets, small businesses must be able to adjust quickly to survive and move even more swiftly to thrive. To do so, small business management needs to understand the importance of effective informal planning practices and to determine the most viable informal planning methods that produce the results desired"* (Allred, et al., 2007). In agreement with Allred et al, Lumpkin, McKelvie, Gras & Nason (2010) constructed a map that shows the possible impacts of newness and smallness of a business, on ability to conduct effective strategic planning using different techniques. This map can be seen in Figure 22. The smallness of a business is one factor that will affect the marketplace seller. Mitzberg & Waters (1985) suggested that small businesses with a singular decision maker may have an approach to strategy called entrepreneurial strategy. Mintzberg suggested that this type of strategic approach would be common in new and small businesses in cooperative environments. It is expected that

the conditions of the online marketplace environment be conducive to an entrepreneurial approach to strategy and decision-making.

Figure 22: Mapping the impacts of Newness and Smallness on Strategy Lumpkin et al (2010)

Strategic Planning Tool	Impact of Newness	Impact of Smallness
Strategic Analysis SWOT Analysis 5-Forces Analysis Value Chain Analysis	Lack of power over supplies and customers may force firms into precarious competitive positions View of locally defined competitors and niche customers may constrain analyses	May lack ability to conduct traditional analyses due to a lack of core strengths or weaknesses Unable to provide full set of activities due to lack of human capital
Strategic Content Cost Leadership vs Differentiation	New firms lack the experience to derive cost benefits from economies of learning The lack of a track record prevents new firms from differentiating themselves through brand image.	Smallness runs contrary to economies of scale and scope, limiting the ability of small firms to derive cost advantages. Limited resources in small firms inhibit a firm's capacity to continually be first to market.
Strategic Assets/Capabilities Resource-Based View	Lack of legitimacy creates challenges in acquiring other valuable resources. Lack of firm level resources creates a greater reliance on individual and firm external resources.	Lower stock of valuable resources. Greater flexibility in the ability to manage resources.
Strategic Processes Entrepreneurial Orientation	New firms lack legitimacy and therefore may force them to follow industry norms. Lack of track record may allow them to be more innovative.	Risk-taking is balancing act to ensure survival. Lack of core rigidities and structures allow to quickly react and be proactive in pursuing opportunities. Innovative launches oftentimes require major resource outlays.

Source: (Lumpkin, et al., 2010)

It is anticipated that the seller communities may face impacts of smallness described by Lumpkin et al (2010), in particular the barriers caused lack of resources, capabilities and economies of scale. It is anticipated that the environment, being highly competitive and fast moving, then risk-taking pivoting and agile adaptation will be a common attribute of the marketplace seller. As a result, informal 'in the moment' planning may be prevalent in this community. This has ties with the themes discussed in the subject of entrepreneurial marketing, risk-taking, opportunity identification and adaptation being attributes of this style of marketing management.

There are no specific studies that cover this notion within the marketplace seller communities.

2.3.2 Online Marketplaces: Customer Satisfaction and Seller Reputation

Customer satisfaction and seller reputation have a strong impact on the success of the online seller. On the online marketplace the seller has two visible ways of showing customers that they are trustworthy retailers; one is the seller or product rating (usually in the form of a star rating) and the other is the customer feedback. All of which are displayed in the seller and product listings and are used by the customer to evaluate the buying decision. Melnik & Alm, (2005) found that a seller's overall reputation (positive feedback, number of negative feedbacks) has a statistically positive influence on their performance and customers' willingness to pay. This was confirmed by Malak, Ferreira, Pessoa de Queiroz Falcão & Giovannini (2021) in a Latin American study that found that reputation had both a positive and

negative influence over aspects of customer trust in the seller. These studies infer that the customers use the feedback and ratings as a measure to assess if the seller is fraudulent, or the products they sell are of sufficient quality to pursue a purchase. They also found that other signals aside from reputation improve the customers' willingness to buy e.g., the ability to pay via credit card or PayPal, which are both backed by payer protections, money back guarantees or dispute resolution services.

Feedback from customers can be problematic, especially in the case of delivery complaints. Customers can turn to negative feedback after receiving damaged or late packages or can leave negative feedback about non-delivery or lost packages. None of these are within the control of the seller and would be caused by the chosen parcel carrier.

There have been many documented issues with marketplace feedback, some documented issues stem from fake feedback where sellers would give rebates or incentives to give top rated feedbacks, there have also been issues with competitors leaving their competition negative feedbacks in order to damage their reputations. Moreover, there have been cases where feedbacks could be generated by sellers buying their own fake listings and giving themselves feedback from secondary accounts. There are many mechanisms (such as a 'verified purchase' tag for 100% verified buyers) now in place to prevent fake feedback but it still may exist. eBay have a feedback resolution process and negative feedback can be taken down, Amazon have a 'warts and all' policy and it is more difficult to get feedback taken down.

Marketplaces have also gained a reputation for sellers selling fake and counterfeit goods or goods with specific accreditations such as safety standards certifications that aren't proven. This can also damage seller reputations and steer customers towards a more trusted buying source. In a literature review compiled by Wu, Ngai, Wu & Wu (2020) they found that the estimation of the number of fake reviews varies in the literature from 16%-33%, however, this was analyzing studies from a variety of websites such as review sites for tourist destinations and restaurants as well as sites that review other businesses such as dentist, doctors and retailers. Wu, et al, (2020) also documented some several high-profile cases of big businesses posting negative feedbacks against rivals (Samsung posting negative feedbacks to HTC in Taiwan, 2013) and The UK Advertising Standards Authority findings that 50million TripAdvisor posts could not have been verified as real. This problem is well documented in the mainstream media and in the literature, however, is not well documented from the standpoint of the seller communities. How do sellers handle this type of fake feedback as part of their customer relationship strategy (CRM) in their marketing plans? Do they pursue dispute resolution with negative feedback? How damaging is fake or negative feedback is often unknown as can be seen as a gap in the research.

One other thing worthy of note in terms of customer satisfaction is the method of customer contact when selling on an online marketplace. In all cases the customer would use the marketplace to log a customer service contact and, in most cases, they would deal with a customer service agent employed by the marketplace. The decision the agent will make is based on the marketplace policies that the seller will sign up to. Sellers have much less control over the customer contact resolution when selling on an online

marketplace. "*eBay resolves up to 60 million disputes per year on its platform*" (Korobeynikov, 2020) their aim is to seek a resolution for the customer and they are able to do it through scalability. They handle disputes on behalf of the seller and given the number they deal with it is likely that their system is open to abuse and could negatively impact the seller. The literature in this area is limited and focused on the technical capabilities of the platform and the benefits to the seller not the pitfalls. How much does the seller lose out on having their disputes handled by the platform is unknown, also whether this is an acceptable negative if it is a problem. Is this issue a consideration that is factored into sellers' marketing CRM strategies do they aim to mitigate the most common disputes through their marketing and CRM strategies?

On the topic of customer satisfaction and customer experience, the access that the sellers have to their customers' post-purchase sentiments, gives them the advantage that traditional selling does not. This advantage is tracking customer experience both positive and negative in as close to real time as they can get. This is without having to go through the labour and resource intensive process of interviews, focus groups and surveys to generate customer feedback. "*Customer review data can be used for "…proactive thinking in both strategic and tactical design activities and most helpfully in design concept generation and design for UX [User Experience] … this can help designers to overcome the challenges faced in existing UX studies, where conventional surveys and questionnaires are heavily counted on*" (Yang, Liu, Liang & Tang, 2019). This benefit means sellers can use this real time data to make product development decisions both strategic and tactical in response to user comments. The downside of this is that the seller may not have the ability to get further information on the customer experience beyond what is written as feedback, the negative feedback is also visible to potential future buyers and could put them off making a purchasing decision. This is a positive for the customer as this puts pressure on the seller to ensure quality and positive customer outcomes are achieved, placing the power with the customer.

2.3.3 Online Marketplaces: Brand Awareness

One major problem faced by sellers using online Marketplaces is the 'Stand out from the crowd' and drive brand awareness on the online marketplace. There are limited studies surrounding whether customers are aware of individual brands while using online marketplaces, the limited research that does exist, however, focuses on specific marketing activities such as pricing and reputation/brand management. For example, in a study by Dirusso, Mudambi & Schuff (2011), it was discovered that the sellers that had high website ratings and a strong reputation did not command higher prices for their goods, and that traditional reputational based marketing assumptions such as strong branding logos were not applicable on amazon marketplace transactions. In agreement with Dirusso et al, Mu & Zang (2021) acknowledged the lessened brand influence but in contrast to Dirrusso et al, they found that although "*brand reputations might be diminished in the online environment, firms can still benefit from increased brand reputation on e-commerce platforms as it can still increase clicks and purchases*" (Mu & Zhang, 2021)*. The benefit the seller can get from a recognized brand may be offset by the lack of brand recognition for the seller's own brand.

The seller can therefore benefit from the reputation of the product brand they are selling without having to build this brand's positioning. In a study conducted by Li, Tao, Cheng & Zhao (2016) they found that product review ratings and review volumes were positive determinants of sales ranking and sales performance. This leads to the question is brand awareness important for online sellers or for customers? Branding is easier when selling own products, for example if Apple were to become a marketplace seller, the customer would be brand aware but if a different seller were to specialize in Apple products and accessories, customers would not necessarily be brand aware of the seller's retailer brand. As such the brand trust comes with the product itself or the customer ratings and not the seller brand.

Some sellers are turning to social media influencers to bring brand awareness to their online marketplace store. "*Influencer marketing is a marketing strategy that uses the influence of key individuals or opinion leaders to drive consumers' brand awareness and/or their purchasing decisions*" (Lou & Yuan, 2019). The typical way in which this is achieved is that a social media influencer will test, review or wear the product (if it is clothing or shoes). The product is usually given to the individual for free and in exchange the influencer will promote a link to the product(s) on their profile or video. "*Influencer marketing, when properly implemented, is being used for a two-way communication opportunity that is a secondary strategy for social media to match authentic conversation with marketing messages*" (Vodák, Novysedlák, Čakanová & Pekár, 2019) an example of an influencer promoting a product on YouTube can be found in Appendix 2. Influencers can either make recommendations for certain products or can post links to the seller shop on the marketplace, this can often be in exchange for free goods or they accept payments to promote the products. Often the influencer tests the products or uses the products in the style of a demonstration. From a customer point of view the trust in the brands comes from an extension of the trust they have in the influencer. However, the reviews can be bias as the influencer is being paid. So, the influencer must balance their reputation in order to provide a fair review of the product so they do not lose trust with their audience. In a study conducted by Lou & Yuan, (2019) the findings were that influencers' trustworthiness, attractiveness, and perceived similarity (to their followers) positively influenced their followers' trust in branded posts therefore driving traffic towards the product they were endorsing. The evidence in the literature clearly shows influencer marketing is a great way of achieving brand and product awareness but the literature is lacking in understanding how prevalent this marketing strategy is amongst the seller communities and what benefits and challenges they face when adopting it. It is unknown as to whether the seller communities use this growing brand awareness technique. Irrespective of the seller or product brand the influencer directs the customer to the landing page of the seller and bypasses the product search rankings, therefore having multiple benefits.

2.3.4 Online Marketplaces: Marketplace Competition

When sellers decide to use a platform to sell items, they do so knowing that they are competing on two fronts. The first being competition from other sellers (unless the product offering is unique) and the second is from the platform provider which is more likely the case when selling on Amazon. Platform owners will sometimes encroach into the sellers' product space and sometimes relinquish it to the sellers if they can provide a better offering to customers. E.g. it is unlikely that Amazon will buy a product from a brand wholesale when the brand can sell as a third-party through its website. In 2020 the largest UK Amazon seller was music Magpie (Entertainment Magpie Ltd) who sell second-hand media and technology through Amazon, eBay and its own website, according to Market Pulse (2020). eBay or Amazon would not compete in this sphere as neither company have the same infrastructure to buy goods second hand on mass from the public that Music Magpie do. However, when a platform does have the capability, it may sell products that sellers compete with and may also begin to sell products that were previously dominated by their seller communities. For example, Amazon has a basics range selling hundreds of everyday products such as batteries, household goods and low value electrical items, some of which may have previously been dominated by seller sales. A study conducted by Faherty, Huang & Land (2017) found that Amazon often encroached into markets with its own label brands, making it impossible for sellers to compete. *"Multiple merchandisers are starting to feel the direct effect of Amazon's private label brands as their costs are undercut by Amazon, creating a significant risk to sales and profits for third-party retailers"* (Faherty, et al., 2017). A similar study by Zhu & Liu, (2018) found that the platform would not encroach into a seller market where it requires significant investment to do so. This infers that in the example of Music Magpie, Amazon and eBay would be unlikely to invest in this sphere to gain market share, especially when they make commission on the sales from the seller. Both studies failed to understand if sellers aim to anticipate an Amazon "takeover" when choosing what product lines to sell, nor do they discuss the marketing strategies used by sellers for items that directly compete – for example do sellers have loss leading products in order to remain competitive? This is an unexplored aspect of the seller / platform relationship.

A 2020 study conducted by Belhadj, Laussel & Resende (2020), found that the marketplace under certain conditions the platform will operate as a 'retailer' for higher volume, higher velocity, repeat sale items but acts as a marketplace for lower volume lower velocity products where sellers can pick up this end of the selection. *"The platform works as a marketplace for low-demand goods, while it acts as a reseller in the case of high-demand goods."* (Belhadj, et al., 2020). This means that the seller community may always be forced out of the high velocity, high volume market by the platform as they are either offering better prices or gaining the "buy-button" by displaying the seller options much lower in its search ranking. It is impossible to tell if the platforms do this especially as the search algorithms are designed to offer the customer the best outcome and not give the buy-button favorability to any one seller. For example, the search algorithm may display an Amazon basics branded product to a customer who frequently buys that brand vs customers who do not, it may choose not to display amazon branded products to customers who

---

do not buy from listings that have poor reviews. The algorithm will display search ranking based on individual customer preferences but overlay the sponsored results that the sellers are paying for.

All platforms operate a sponsored product or 'ads' program where sellers can pay for sponsored search results, these results are shown in prominent (often first) positions in the search listings. These sponsored results are clearly shown as 'sponsored' in the search rankings to give transparency to the customers. Some examples of this can be seen in Appendix 3. This is one of the most effective ways a seller can promote their product listings, ensuring they appear on the top or at least on the first page of the search results. According to the research firm Millward Brown, only 70% of consumers only select products that appear on the first page of the search results, 20% of shoppers would go to the second page and less than 10% said they would go as far as the fourth page (Johnson, 2014). This means it is almost essential for a product to appear in page one to achieve good sales. This topic is also unexplored in the literature from the seller's perspective, i.e. how the seller chooses what to pay sponsorship on and how to do they monitor this effectiveness (payback) of this investment. Do sellers have sponsored product strategies and if so, what are the most effective?

2.3.5 Online Marketplaces: Inventory and Shipping

Sellers have two options when it comes to shipping and inventory storage, they either do this themselves or they have the inventory stored and shipped by the marketplace provider. This option is only available for Amazon sellers as eBay, Etsy and Not-on-the-High-Street do not have the capability to store and ship products for their sellers. eBay do, however, have very specific seller services such as click and collect partnerships with high street retailers and supermarkets, and financial solutions from its PayPal services. A study conducted by Sun, Lyu, Yu & Teo (2020) experimented with an Amazon seller by fulfilling customer orders from the Amazon warehouse and comparing the sales and profitability from their past sales of the same items, they found that rewards could be positive by up to 35% based on using Amazon warehouses to fulfil orders vs sending direct to the customer from their own facility. This was because of reduced delivery timing displayed in the listing as well as the "Fulfilled by Amazon" affiliation displayed in the listing, using Amazon service also gave the seller access to the Amazon supply chain if the items needed to be sent to different warehouses to be delivered quicker or combined with other ordered items. The study was conducted following a Chinese seller who sent goods globally from China, thus increasing delivery timing vs delivering from Amazon warehouses in local regions meaning it could have a skewed outlook on the benefits for a domestic seller as they would have reduced delivery times. However, the other benefits (Access to supply chain for conjoined orders and the "Fulfilled by Amazon" affiliation displayed on items). In the case of eBay, the use of PayPal as a payment method and use of 'Click and Collect' delivery methods may also yield financial benefits. The seller gains advantage from these services as it adds capability to businesses that do not have the inventory, storage and shipping infrastructure and it is cost effective. The experience of these services is an unexplored area and therefore worthy of exploration in this research.

2.3.6 Online Marketplaces: Gaining the Buy-Button

One of the features of the online marketplace is that multiple sellers (including the marketplace) can offer the same product. In such cases, the product listing will look identical for each seller and multiple seller options will exist on that standard page. This is known as the 'buy-box' or 'buy-button'.

In the competitive landscape the onus is on the seller to gaining the buy-button to achieve a sale. This is achieved through a number of methods, most notably seeking favorability in the marketplace algorithms. A study conducted by Gómez-Losada & Duch-Brown (2019) found that there were a number of determinants of the favorability the marketplace algorithm uses to position the product in the prime position for the buy-button. These were things like price (both high and low), product status such as best seller and marketplace choice products, fulfilment speed, sponsored / paid advertising, in-stock status and even the day of the week were all items that impacted the search ranking and buy-button options. To make this more difficult for the seller the marketplace is often a key competitor "*Amazon products receive substantially more recommendations than third-party products… The patterns remarkably consistency across popularity deciles and product categories*" (Chen & Tsai, 2019). It is currently unknown as the how the sellers navigate this algorithm to gain the buy-button. "*One of the main challenges in Amazon marketplace operation is the lack of understanding of the empirical mechanisms adopted by sellers for market competition*" (Gómez-Losada & Duch-Brown, 2019). This research can try and bridge this research gap.

2.3.7 Online Marketplaces: Latest Findings in the literature.

There are a number of key findings in the latest literature which are key to acknowledge as part of this literature review. In the area of e-marketplace selling. Chaudhuri, Gupta, Vamsi & Bose (2021) in their research aiming to predict customers' purchase behavior using deep learning and big data found that the following factors were prevalent when determining customer buying behavior; customer buying behavior differed at specific times of the day and depending on the purchase the day part will drive higher likelihoods of purchasing behaviors. This is also true for day of the week. Other factors such as the length of time since last purchase and the sum of the prices added to cart and also determiners of buying behaviors. Wither regards to the seller and their experience on the marketplace, research conducted by Kumar Sikdar and Saha (2021) found that sellers were more likely to select a certain marketplace for their products based on the following experience indicators; ease of registration, product listing (look & feel and ease of listing), autonomy over pricing, delivery options, credit and receivables and finally vendor assistance / customer service. The study doesn't mention market size or composition so it is interesting that the seller may select marketplaces based on their experience rather than select based on which marketplace the most customers are using. This assertion in the literature could be validated during the research.

2.4 Chapter Summary, Limitations and Identified Gaps

Throughout this chapter there have been a number of gaps identified in the literature. Table 19 below outlines the largest gaps identified. These gaps will be used to shape the research design with the aim of ensuring a contribution to knowledge.

Table 19: Literature Review Gap Analysis

Literature Area	Identified Gaps
Big Data	1. Abundance of literature that is highly generalized. The literature assumes that the businesses have total control over the data they collect. And do not refer to companies with third-party access to the big data. 2. There are no studies covering big data from the marketplace seller point of view but do cover it from the marketplace point of view. 3. Literature that focuses on the strategy of converting data into decisions is lacking. Most of the literature is concentrated on the data collection and data analysis and do not go far into the decision-making domain.
Online Marketplace Retailing	1. Overall the literature is focused on the marketplaces, the features and technology aspects and the marketplace providers, the literature is sparse in terms of the marketplace seller community. 2. The environment is highly competitive and competitive actions or competition with the marketplace providers are not well documented. 3. Differentiation and price competitiveness is difficult. The marketplace seller is left to operate in a low volume low velocity space the big companies do not want. 4. Customer relationship management is out of the seller's hands so need to look for other ways to manage CRM, reviews, rating and Q&A need to be the focus of CRM differentiation. 5. Building a brand is difficult and innovative ways of inspiring repeat sales is required.
Marketing Strategy	1. Traditional marketing models are applicable to the online seller context particular the marketing mix, BCG Matrix, PLC Model and SWOT/PEST analysis. However, there is a strong lean towards the assumption that businesses are manufacturers of their own goods but this is not the case for many retailers. 2. The models are simple and highly generalized, they do not help the user compile strategy itself they provide a framework only. 3. Sponsored products and paid for search rankings do not feature in the traditional marketing models and should feature highly in the online sellers marketing plans. Sponsored products research is limited and numbers that show return on investment are scarce. 4. Social media marketing and influencing is missing from the traditional marketing models and should be a prominent feature in a sellers marketing plan. 5. Traditional marketing strategies feature highly in in higher education business courses but are less applicable in the business world. (Models are highly recognized but not well applied by business graduates).
Pilot Study	1. Sellers show concern over the actions of the marketplace i.e. competitive pricing, promotions, seller fees, decisions over customer complaints, negative customer comments and damages of products in particular. 2. Sellers appear confused about data and reporting and reach out for help and advice from other sellers. Sellers also ask for help on how to gain the customer buying preference. 3. Sellers are concerned about not being able to enact traditional marketing / advertising techniques such as email and print advertising. 4. Sellers show concern about lack of ability to plan longer-term and discuss a very reactive, strategically short-term selling environment. 5. Sellers are concerned about customer loyalty and for advice on how to retain custom and generate repeat purchase.

Source: The Researcher

Figure 23 is a visualization of the gaps found in the literature and this has been coupled with the findings of the pilot study that will be discussed in chapter 4.1.1. The pilot study was conducted examining qualitative

data from an Amazon seller forum in the UK. The gaps in this literature along with the findings of the pilot study were taken forward to formulate the basis of the research questions for the first data collection phase, the questionnaire this is discussed in Chapter 3.4 Research Design.

Figure 23: Visualization of the Literature Review and Evaluation of its Limitations
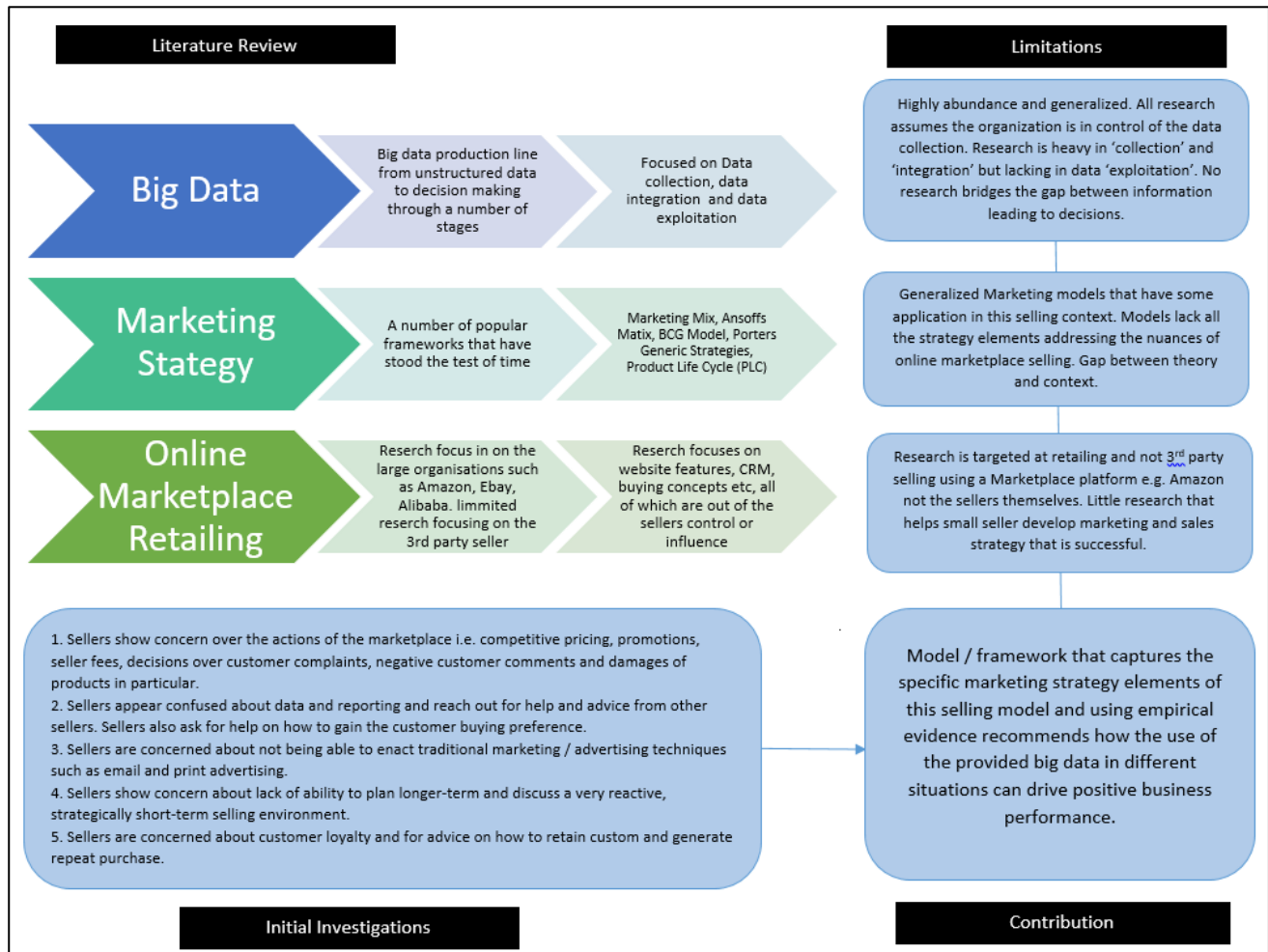
Source: The Researcher

Chapter 3. Research Methodology

3.0 Introduction

This chapter will focus on the research methodology, including the research philosophy and methodology that was selected for the research. The chapter will give an overview of the link between the research outcomes, including justification for the chosen methodology. The sample frame and the sampling approach will be outlined as well as the research strategy including justifications for the chosen data collection methods and analysis strategy. Finally, the expected contribution to knowledge is presented, outlining the expectation that the research will produce an academic model / framework that is inductively generated from the data and findings seen in the results.

After a critical review of research methodologies, the most appropriate research approach and philosophy for this study will be a pragmatic based philosophy. At first glance the subject of big data would lend itself naturally to the positivist philosophy, gathering only quantitative data for analysis. However, in order to fully explore management of big data, the methodology will need to include a mixed method approach to data collection and analysis. Only one of the research questions (RQs) can be answered using quantitative data collection and analysis, however, qualitative data will need to be gathered in order to understand the strategy element of RQ1 and RQ3. This is due to the human behavior element involved in interpreting data and transforming this into action/decisions. The expected outcome of the research will be a framework / model, which will be built up inductively. This will begin initially through the data collected in the questionnaire phase, then expanded upon in phase two through the use of case studies, with each case study adding to the theory. The primary data will be collected using a Grounded Theory approach. The chosen research philosophy, research methodology and research design will be critically discussed throughout section 3 and rationale for the selected design strategies will also be discussed.

3.1 Research Philosophy

3.1.1 Ontological Assumptions:

According to Crotty (1998), Ontology is "*the study of being, it is concerned with 'what is', with the nature of existence, with the structure of reality as such*" (Crotty, 1998, p. 10). In this research the researcher will be taking a wholly objective ontological position, in that the researcher believes that the world exists (and is not a socially constructed reality), it is accessible to be measured empirically in order to generate theory from the measured data. The key 'objects' or 'actors' within this research are the "seller" (the company or businesses that use online marketplaces to sell goods, including their employees), the marketplace (the company who run the online platform on which the sellers sell goods), and the Market (the capitalist frame in which the online marketplace sits). A number of other actors will be discussed also, such as; government when discussing regulation, competitors (other competing sellers and businesses competing for the same

customer base) when discussing competition and carriers, when discussing the delivery agents who deliver goods to customers' homes. This research recognizes these 'objects' or 'actors' operate as part of an objective reality and not as a subjective or socially constructed reality.

3.1.2 Epistemological Assumptions

The Epistemological assumption according to Collis and Hussey (2013) is "*concerned with what we accept as valid knowledge. This involves an examination of the relationship between the researcher and what is researched*" (Collis & Hussey, 2013, p. 47). In this context the researcher will have to take a more subjective stance. A wholly objective stance would mean that only observable and measurable phenomena can be classed as knowledge, however in the context of this research; subjective data will be collected through stories and experiences, therefore it is necessary to take a more subjective epistemological stance. Knowledge will be gained through both objective and subjective means from interpreting empirically measured data and narrative data which will be gathered from the seller community. The data gathered will be mixed in nature due to the phenomena being observed having both measurable results and subjective experiences shared by the seller community. The researcher in this research is an observer and not a participant, however, it is recognized that the researcher in the design of the research questions, design of the survey & interviews and the chosen literature has had an influence over the outcomes of this research. Every effort to remove bias was made and checks conducted to ensure that seller data was accurately represented and free from researcher bias.

3.1.3 Approach to Management Research

In connecting the two philosophical dimensions mentioned above (objective ontology and subjective epistemology), there are two main approaches that are outlined by Johnson & Duberley (2000). These are: critical realism and pragmatism. The ontological and epistemological positioning can be visualized in figure 22 below. As mentioned above the epistemological assumptions have a mixed element of objectivity and subjectivity with the more subjective experience of the seller community being the foundation of the research. This can be plotted on the scale shown in figure 24 below.

Figure 24: Ontological and Epistemological Positioning
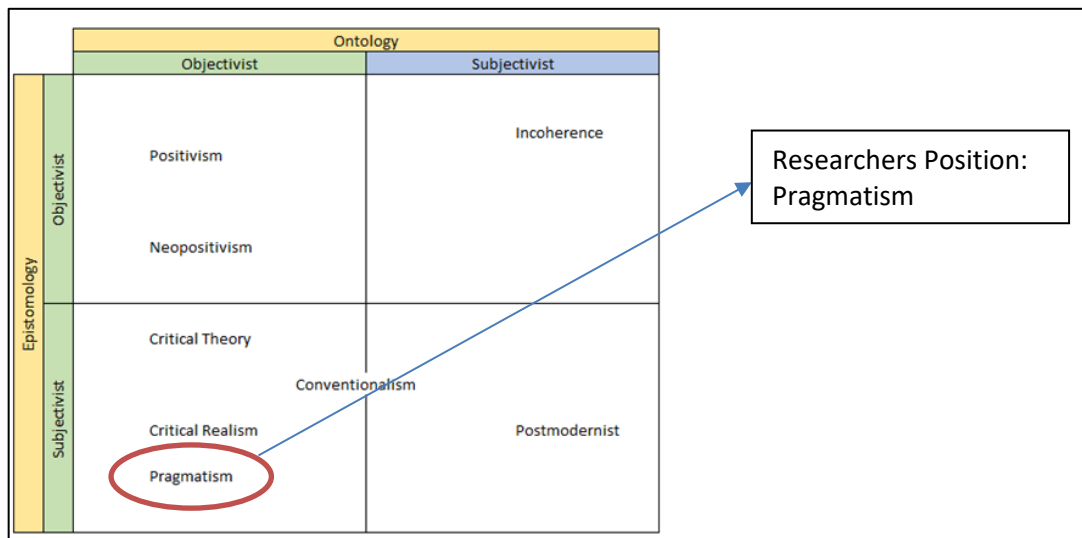
Source: Adapted from Johnson & Duberley (2000)

The researcher had considered a more positivist approach given the subject of this research being big data (objective ontology and objective epistemology). However, positivist research relies solely on quantitative data to deductively test theory. This approach could be a valid option of the research, however, quantitative data may not be sufficient to gain insights into the more human element of decision making and entrepreneurship discussed in the literature review. In this case qualitative data may be more appropriate. It is for this reason why the more pragmatic approach is the result of the position the research will take. This will allow for objective and subjective data to be used in combination to produce the research outcomes.

In order to determine the most appropriate approach the research questions, aims and objectives surrounding those questions must be considered. With this in mind, the data required in order to fully explore and provide answers to the research questions RQ1-4, must each be considered in turn.

Table 20 below examines the possible data collection methods that could be adopted for each research question:

Table 20: Analysis of Required Data to Satisfy Research Questions

Research Question	Data Required to answer the question	Data Collection method
RQ1: To what extent do the usage of big data drive marketing strategy decisions of online marketplace sellers using online marketplace platforms?	Stories, examples, insight into behavior and strategy. Performance data points such as sales, volume, customer numbers and other business metrics.	*Qualitative data* – Interviews *Quantitative data* – Questionnaire / Survey
RQ2: What are the characteristics, nuances, benefits and limitations of the online marketplace selling environment?	Stories, examples, insight into behavior and strategy.	*Qualitative data* – Interviews Supplemented with data from the literature.
RQ3: To what extent are traditional marketing models appropriate to marketplace selling and do they aid marketing strategy for online marketplace sellers?	Stories, examples, insight into behavior and strategy.	Questionnaire / Survey / Forum data *Qualitative data* – Interviews.
RQ4: To what extent do online marketplaces dominate or have control or influence over seller behavior or have impact on seller businesses.	Stories, examples, insight into marketplace behavior.	*Qualitative data* – Interviews *Quantitative data* – Questionnaire / Survey Examples found in the literature.

Source: The Researcher

From table 20 above, it is clear that in order to fully explore and gain deep insight into all four questions, a mixed methods approach to this research may be required. Mixed methods is "*the combination of at least one qualitative and at least one quantitative component in a single research project or program"* (Bergman, 2008, p. 1)*,* this approach can be aligned with the pragmatic rather than a purely positivist research philosophy. It is debated whether a mixed method approach can support just one set of ontological and epistemological assumptions. The literature leans more towards the qualitative (traditional scientific method) approach, having an objective epistemology and the qualitative school being aligned to a more subjective epistemology. Writers such as Creswell (2003) encourage a more pragmatic approach to the theoretical perspective governing the methodology applied to the research and promote a "*match between problem and approach*" (Creswell, 2003). In this case the best match is the mixed methods approach.

The benefits to a mixed method methodology are that a triangulation of the different data points can be used to generate a richer insight and can be taken forward to inductively build theory in this subject area. Incorporating human experience with qualitative data will seek to answer the "why" questions which the qualitative data alone cannot do.

Combining both qualitative and quantitative empirical data will have the benefit of overcoming the weakness or intrinsic biases and the problems that come from single-method, single-observer and single-theory studies, weaknesses such as the "why" question above. The overarching benefit of a mixed method

approach is the ability to adopt the method of triangulation in the analysis and results phase of the research. Triangulation is a process incorporating several viewpoints and methods which increases validity by mutually strengthening the data collected via these methods when combined. In the social sciences it is the combination of two or more theories, concepts, data sources and/or methods in the research of a single phenomenon and can be employed in both quantitative and qualitative studies.

RQ1, RQ2 and an element of RQ3 and RQ4 cannot be fully explored by just using quantitative data. The question requires an understanding of "strategy", which is an observable phenomenon in the form of decisions made but there is a meta-physical side to the notion of strategy, in terms of the reasoning behind those decisions that cannot be fully explored with just qualitative data. For this reason, an approach based on pragmatism is the most appropriate in order to explore the human behavior side of the research questions that require this, "*in order to understand human behavior in organizations, we must gain access to those actors' subjective interpretations of reality - to access their cultures through 'verstehen' and the deployment of reputedly qualitative methods of data collection*." (Johnson & Duberley, 2000, p. 181). The necessary approach for this research will need to be a pragmatism based mixed method approach. The next section will discuss the data requirement to satisfy the research questions, aims and objectives and the methodological approach that best achieves this.

3.2 Evaluation of Research Methods

This section will discuss and evaluate the different research methodologies that can be considered as an appropriate methodology for this research.

Table 21: Evaluation of Research Methodologies

Methodology	Deductive or Inductive	Data collected	Pros	Cons
Purely Positivist *(Classic Scientific Method)*	Deductive	- Objective, numerical data that can be analyzed for trends. The results would be presented in tables, charts and formulae.	- Can sample a large group - Large sets of data can be generated - Data can be conclusive and need less of the researcher's interpretation. - Data can be used deductively to prove or disprove existing theory or test assumptions in the literature.	- Behavior and decision making is difficult to quantify with numerical data. The "strategy" element could not be studied with quantitative data.
Grounded Theory	Inductive	- Objective, numerical data that can be analyzed for trends. The results would be presented in tables, charts and formulae. - Subjective data from interviews / discussions with "actors" gaining insights into the thinking and decision making. This approach means the "why?" questions can be asked.	- Offers insights into the behavior of the 'actors' in the environment - Can use mixed methods, qualitative and quantitative data and triangulation. - Allows theory to emerge from data so is not proving or disproving existing theory.	- Makes research and analysis more complicated. - Grounded theory difficult to implement in full or properly.
Mixed Methods	Deductive and Inductive	- Objective data numerical based - Subjective data from interviews. Same as above.	- The mixed approach can be deductive "theory testing" and inductive "theory building" so is flexible. - Allows for triangulation of data. - Allows the more subjective data to be analyzed as well as the objective.	- Doesn't wholly meet the research aims, to produce a model based on the findings of the research that is firmly grounded in the evidence and data. - Can bring the researcher subjective bias into the research, which if done properly Grounded theory shouldn't.

Source: The Researcher

The researcher went through a series of decisions through the research design phase, this was to determine which approach was the most appropriate to use as the basis for this research. The approaches shown in table 21 were the short list. Considering the literature review it is seen that the theory in the area of big data is established and covers a wide area of scope across many different areas and business focuses. For the context of this research, there is little theory available that can be deductively tested and little in existence that the researcher is able to use to formulate hypotheses that can be tested. As such the approach to the research will be, enhancement of theory, providing contribution to knowledge (rather than theory testing or hypothesis testing) through induction. This is in contrast to "the deductive tradition, in which a conceptual and theoretical structure is developed prior to empirical research, theory grounded on observation is the outcome of induction." (Gill & Johnson, 2010, p. 56). It was deemed by the researcher

that the grounded theory approach was the most appropriate research methodology to use in this research, the detailed reasons for this are outlined in the next section.

3.3 Research Methodology: Mixed Methods and Grounded Theory

One of the most relevant research methodologies for inductive research is the Grounded Theory approach. Grounded theory is an approach proposed by Glaser & Strauss (1968, 2009), whereby the researcher gathers a body of data and systematically leverages this data to formulate theory iteratively using the emergent themes, with each systematic iteration adding more depth to the theory being created. Glaser and Strauss (2009) define grounded theory as "*the discovery of theory from data systematically obtained from social research…[its] basic position is that generating grounded theory is a way of arriving at theory suited to its supposed uses.*" (Glaser & Strauss, 2009, pp. 2-3). A key feature of this research methodology is that the researcher allows insights to be driven by the data and not by hypotheses founded in interpretation of theory. The Grounded Theory approach has traditionally had a foundation in qualitative research, however, grounded theory also supports a mixed method data collection strategy. Glaser and Strauss (2009) discuss the different forms of data positively, further supporting this chosen approach. "*In many instances, both forms of data are necessary —not quantitative used to test qualitative, but both used as supplements, as mutual verification and, most important for us, as different forms of data on the same subject, which, when compared, will each generate theory*" (Glaser & Strauss, 2009, p. 18)*.

Strictly speaking from the perspective of Glaser and Strauss, a literature review should not be done ahead of the research. They suggest that this is because the themes and categories that emerge from the research data can be contaminated by the literature and how it influenced the researcher. "*An effective strategy is, at first, literally to ignore the literature of theory and fact on the area under study, in order to assure that the emergence of categories will not be contaminated by concepts more suited to different areas.*" (Glaser & Strauss, 2009, p. 37). The choice to do a literature review was made in order to firstly understand if this type of research had been conducted before and if the eventual contribution to knowledge was expected to add to the body of literature and not replicate already existing knowledge. The researcher also wanted to remain focused in terms of the research direction, given the vast nature of the wider subject areas, otherwise the research could have been very nebulous and could have headed towards outcomes that had no theoretical merits. Writers have increasingly acknowledged that literature reviews aid grounded theory research rather than hinder. "*There is now a considerable body of evidence arguing that a preliminary review of the literature does not jeopardize the rigor of grounded theory research. Rather, it can be seen to enhance creativity, theoretical sensitivity, and rigor. Previous knowledge and experience can lead to innovative insights.*" (Giles, King & de Lacey, 2013). In line with Giles et al, the researcher is aligned to this approach to ensure rigor and theoretical sensitivity is kept throughout the research.

3.3.1 Rationale for using a Grounded Theory Approach

Some of the basic features of Grounded Theory make this approach an appropriate method for this research, a number of the key rationale points are outlined below:

1. Grounded theory offers rich insight and understanding into the subject being studied. It allows the researcher to build theory via the process of induction. This is relevant in the research context as current theory and research context have misalignments that new emergent theory may bridge. *"The Grounded Theory Method (GTM) comprises a systematic, inductive, and comparative approach for conducting inquiry for the purpose of constructing theory".* (Bryant & Charmaz, 2007)

2. Grounded theory makes great contributions to subject areas where little research has been undertaken. As there is a specific lack of research in the chosen context, grounded theory can prove useful. *"Grounded theory has an obvious appeal in instances where no previous theory exists, so for new phenomena it's an ideal choice".* (Urquhart, 2013)

3. Comparative methods that encourage comparative analysis and triangulation of data and forces the researcher to look beyond the superficial. Glaser & Strauss (2009) and Glaser (1965). The datasets that will be collected will allow for a rich triangulation and comparative analysis to be conducted.

4. Grounded theory has been selected by many management researchers in numerous empirical studies where the emphasis has been on studying the phenomenon within a particular social construct. As this research is focused on the decision-making aspect of marketing in a 3rd party environment with different actors, grounded theory methodology can help make sense of this human, decision making element. Writers such as Locke (2001) discuss decision making as one of the key phenomena grounded theory is adept at examining. *"As a general statement, much of the theoretical concern in management and organizational studies is with substantive topics such as decision- making, socialization, and change. Grounded theory is particularly useful for examining those situated processes"*. (Locke, 2001)

Finally, since the study is concerned with exploring the use of big data and the use of information from large data sets to drive decision making, it is prudent to conduct the study in line with the research scope i.e. using the evidence found in empirical data to generate theory from the ground up.

3.3.2. Grounded Theory Critique

Grounded Theory, using a mixed methods approach to data collection is the most appropriate methodology for this research, given the lack of current concrete theory in the area of online marketplace selling, big data marketing and the data requirements to satisfy all the research questions, aims and objectives. There are a number of criticisms of grounded theory that should be considered. The most fundamental criticism of grounded theory proposed by Bryant, Bryant & Charmaz (2007), is that deeply ingrained in the fabric of grounded theory is the assumption of objectivity, but the overall failure of the approach to

recognize the agency of the researcher and the influence they have in the theory formulation and interpretation of the data. "*Grounded theory fails to recognize the embeddedness of the researcher and thus obscures the researcher's considerable agency in data construction and interpretation*" (Bryant, et al., 2007, p. 422)*.* In order to overcome and limit this influence the data collected via qualitative methods will first be checked with the participant to ensure the data accurately represents them. Secondly assumptions should always be rooted in or backed up by data, taking nothing for granted. These approaches should limit the influence of the researcher's own views on the theory being induced. Another typical criticism of grounded theory is that it can produce too much data, making it difficult to bring together and analyze. In overcoming this pitfall, the research design discussed in the next section will aim to be succinct, with the themes and trends in the quantitative data driving the focus for the themes to be explored in the qualitative element of the research. The Design of the grounded theory methodology using a mixed method approach will be discussed in the following section.

3.4 Research Design

The research will focus on organizations whose mode of sale is to use a large online retail Marketplace such as Amazon and eBay. The research methodologies will aim to produce the following:

- The first phase of the research will aim to gather a body of data from a sample of organizations. The data will be used to identify what big data services exist and their functionalities, uses and applications to drive organizational performance. Discovering what types of big data strategies are adopted within the individual and group of responses. This will be in the form of quantitative data gathered from a questionnaire. This body of data will form the foundation of the format for follow-up respondent interviews.

- The second phase of the research will collect qualitative data through respondent interviews. The interviewees will be selected from the original sample. This will provide a deeper understanding of the trends and themes within the initial results.

- A framework will be developed through a grounded theory approach and refined / applied at each stage of the research, eventually forming the final theoretical framework. This cycle of developing theory and moving this through to the next iteration will be continued until 'theoretical saturation' has been reached and no new data is seen.

A visualization of the research design is outlined below showing the phases of the research.

Figure 25: Visualization of the Research Design
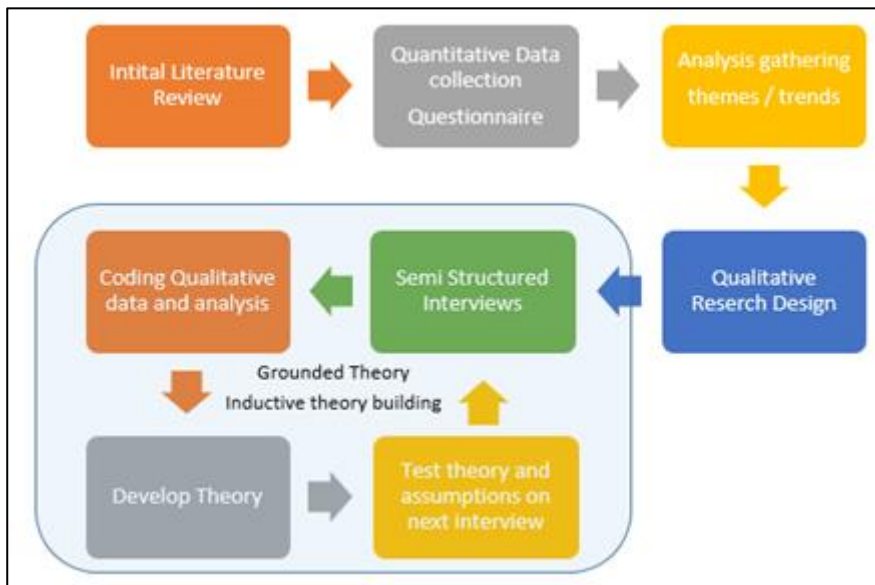
Source: The Researcher

This phased approach will allow the data collected from the second phase of the research to become more focused, concentrating in thematic areas that will have arisen in the quantitative data. This will avoid the over-generation of data. One of the tenets of grounded theory discussed by Glaser & Strauss (2009) is that the researcher should come to the study with a clean slate, having no pre-conceived ideas or theoretical grounding, the researcher should come to the research "*with a particular sociological perspective, and with a focus, a general question, or a problem in mind*" but "*without any preconceived theory that dictates, prior to the research, "relevancies" in concepts and hypotheses*" (Glaser & Strauss, 2009, p. 33). Despite this lack of preconceived ideas being the ethos surrounding grounded theory, it is necessary to have done a prior literature review to first understand what research has been done in the field, so not to duplicate what has already been done, but also to identify the gaps in the research field to generate theory to further knowledge. This is the justification behind having conducted a prior literature review to set the scene for the research. This approach is condoned by Lempert (2007), who argues in favor of: "*on-going researcher familiarity with the literature of the substantive area of study and its applicable theories. Engaging the literature provides the researcher with knowledge of the substantive area in sufficient depth to understand the parameters of the discourse and to enter into the current theoretical conversation.*" (Lempert, 2007, p. 261) .

3.4.1 Questionnaires

The first data collection method will be questionnaires "*a questionnaire consists of formalized and pre-specified set of questions designed to obtain responses from potential respondents. Questions in the questionnaire reflect the research objective under investigation.*" (Bajpai, 2017). There are many differing types of questionnaires and are very flexible in collecting both qualitative and quantitative data points. The

questionnaire for this research will primarily be used to collect quantitative data using a mixture of question types such as single choice, multiple choice, likert scales, sliding scales and numerical entry questions. There are a great many pros and cons when considering questionnaires and surveys as a data collection method. Greenfield & Greener (2016) suggests that the best way to weigh up the pros and cons of using questionnaires in research is to take each situation on a case by case basis, to determine if it is a suitable method of data collection. "*It is not possible to recommend one method of questionnaire administration over the others. Each has its strengths and weaknesses, and these strengths and weaknesses will be context dependent. They will depend on your topic, your own skills, resources and time, the characteristics of your sample and so forth*". (Greenfield & Greener, 2016, p. 212). In this case an online questionnaire is one of only two available methods of data collection to gather the experiences directly from online marketplace sellers, the second method being interviews. It is for this reason that both methods have been chosen for this research. There are limitations in conducting questionnaires, the most prominent being the low response rate that surveys can have, "*survey response rates have been declining for a number of reasons. One response to this is to enable potential respondents to choose from the survey mode that is most convenient*". (Greenfield & Greener, 2016, p. 212). This will be a risk for the data collection and in order to overcome this, the questionnaire will have to be easy and convenient for the participant to respond to.

3.4.2 Interviews

The second data collection method will be from interviews. The approach to interviews that has been adopted for this research is as follows; "*face-to-face encounters between the researcher and informants directed toward understanding informants' perspectives on their lives, experiences, or situations as expressed in their own words*", (Taylor, Bogdan & DeVault, 2016). There are three forms of interviews that are listed in the literature; they can be very-structured, semi-structured or unstructured. The spectrum has both advantages and disadvantages for each type. The chosen method of interview for this research is the middle of the spectrum; semi-structured interviewing. This has been chosen due to being both flexible but structured by following a defined structure, it is easier to adapt and adjust the questions as the interview flows, as well as having the possibility to probe and ask the interviewee for clarifications. The semi-structured interview will allow the uniformity of asking the same questions to each interviewee which the unstructured interview doesn't have as a benefit. The very-structured interview was ruled out due to its inflexibility and inability to seek clarifications or explore responses in greater depth, providing deeper understanding.

3.4.3 Data Collection

As discussed in the previous section, there will be a mixed method approach to the research gathering both qualitative and quantitative data from the participants, each approach will be discussed in this section.

The Participants: The participants of the first research phase will consist of companies who sell the goods through an internet marketplace. Quantitative data will be collected from questionnaires in the first phase of the research. Using the results in this first phase the structure and themes that will be explored in the second phase will be formulated. In the second phase, qualitative data will be collected from semi-structured interviews to gain richer data from a sample of the participants of the first phase.

Quantitative data: As this research will be conducted according to Grounded theory proposed by Glaser & Strauss (1968, 2009), the questions themes / concepts and overall design of the questionnaire will be grounded in data. The data for the questionnaire will be generated by examining a sample of forum posts from Amazon's seller central website https://sellercentral.amazon.com/forums/ . Data was gathered from this forum by searching key words and phrases such as, "marketing strategy", several data phrases such as "sales data", "pricing data", "comments data" etc. the coding strategy explained in the next section was adopted to code the narrative data.

The questionnaire will be electronic so that it is convenient for both the respondent and the researcher. The quantitative data will provide an overview of the trends and patterns in the responses and give initial clarity and results to the research questions. The questionnaire will also contain demographic data so that the results can be segmented into streams such as business type, product lines sold, size of organization and the age of organization. So, any patterns in the groupings can be seen. The segmentation will also allow more specific targeted questioning to occur in phase two of the research.

Qualitative data: the chosen method of data collection from the second phase of the research will be through the use of semi-structured interviews. "*The general goal of the semi-structured interview is to gather systematic information about a set of central topics, while also allowing some exploration when new issues or topics emerge*" (Wilson, 2014, p. 24)*.* The reason why this was selected is that each interview will have evolving and thus different objectives, due to the recursive nature of the chosen inductive grounded theory method. The objectives of each interview should be clearly defined, and the questioning should be designed around these objectives. Some of the questioning will remain consistent to avoid using assumptions but the interview strategy will evolve to incorporate emergent themes that will need to be explored at each iteration of the second stage. The further advantages discussed by Wilson (2014) are positives such as; 1. The ability to probe and explore opinions of the participant, 2.The structure allows the meeting to be brought back on track when going on a tangent, 3. they require less time than an unstructured interview and 4. They ensure consistency between participants where that consistency is required for comparison. The drawbacks are that "*There can be an "interviewer effect" where the background, the sex, age, and other demographics influence how much information people are willing to reveal in an interview*" (Wilson, 2014, p. 26)*.* To avoid this the researcher proposes to give a good introduction to each interviewee, discussing background objectives of the research and experience. There

will also be an opportunity for the interviewee to ask questions about any of these things in order to satisfy any concerns and promoting a rapport based on trust.

The qualitative data will be collected in accordance with the grounded theory approach. As discussed in Glaser and Strauss (2009), theory can be generated through the use of a comparative analysis which are used in research in order to collect and analyze data so as to inductively produce theory that would explain phenomena. The analysis involves segmenting the data into a set of categories which define themes, concepts and trends. These categories are systematically developed in terms of their properties and dimensions, they are interrelated through statements of relationship to form a theoretical framework that explains and "*helps us to predict something about social phenomena*" (Hage, 1972). There are nine stages of activity discussed by Martin and Turner (1986) (adapted from Glaser and Strauss (1968)), involved in the development of grounded theory that will be employed these can be found below:

Table 22: Schematic List of the Stages in the Development of Grounded Theory

Stage	Main Activity	Comment
1	Develop categories	Develop labeled categories which fit the data closely.
2	Saturate categories	Accumulate examples of a given category until its clear where future instances of this relationship are to be placed.
3	Abstract Definitions	Abstract a definition of the category stating the criteria used.
4	Use the Definitions	Use these definitions as a guide in further fieldwork.
5	Exploit Categories fully	Be aware of additional categories, use inverse, opposites etc.
6	Note, Develop and follow up links between categories	Begin to note relationships and develop hypotheses about the links.
7	Consider the conditions under which the links hold	Examine any relationships and try to specify conditions.
8	Make connections where relevant to existing theory	Build bridges to existing work.
9	Use extreme comparisons to the maximum to test emerging relationships	Identify key variables and see whether relationship hold at the extremes of these variables.

Source: Martin and Turner (1986) (adapted from Glaser and Strauss (1968))

Using the approach outlined above to develop the grounded theory, will give a structured framework and guidelines to follow through the collection and analysis of the data. It will also allow the data to be fully explored with depth ensuring the results generated are rich in quality. This strategy is the one most associated with Glaser and Strauss' view of grounded theory.

Iteration strategy: At each stage of the analysis, of phase two of the research a framework will be built up from the results and findings using a triangulation of the three sets of data forum posts, questionnaire and interviews. This framework will evolve over the course of the research and will be taken forward into each forthcoming interview to test and verify. The final interviews can fully test the frameworks' ability to generate results that are generalizable in the wider subject context.

This is in line with the recursive process orientated analytic procedure that is a key characteristic of grounded theory proposed by Locke (1996).

Figure 26: Grounded theory's recursive analytic operations
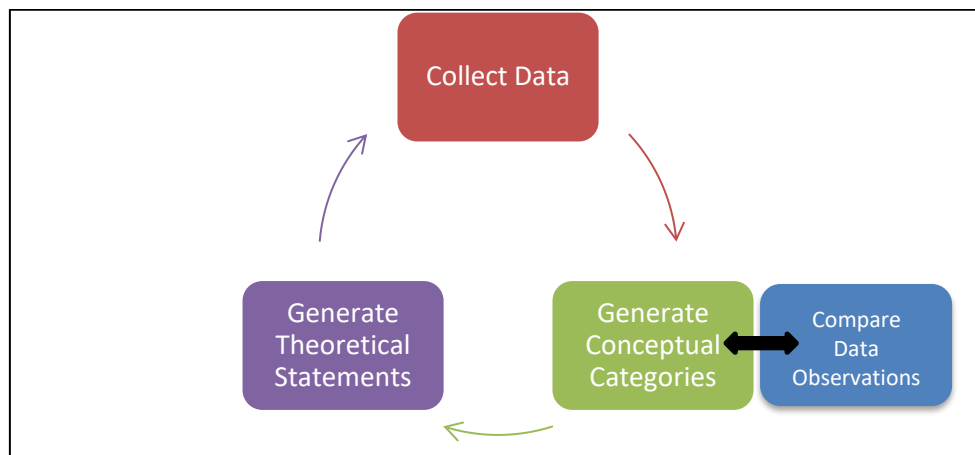
Source: (Locke, 1996)

Triangulation

Triangulation is a process that can be used by a researcher to increase reliability of data and results by incorporating other data points from other research methods. Triangulation can combine two or multiple sources of theory, methods, data sources, or other research into a single study. Triangulation can give more validity to the results and outcomes of research and should focus on providing multiple points of reference to validate or confirm a single phenomenon, bringing a greater level of reliability to the assertion of that phenomenon. *"Given basic principles of geometry, multiple viewpoints allow for greater accuracy. Similarly, organizational researchers can improve the accuracy of their judgments by collecting different kinds of data bearing on the same phenomenon".* (Jick, 1979)*.* To verify assertions made in the results triangulation of multiple methods will be used to validate phenomenon, therefore the interview data will be used to validate themes seen in the questionnaire results and vice versa. Where possible data gathered in the pilot study discussed in section 4.1.1 (the Pilot Study) will be used to validate themes seen in the questionnaire and the interview results.

There are 4 methods of triangulation discussed in Flick, Kardorff & Steinke (2004) these are

- **Data Triangulation**: this involves using different sources of information in order to increase the validity of a study, data can be taken from multiple external sources as a means of supplementing or validating data generated by the research.
- **Investigator Triangulation**: This involves using several different investigators data collection and analysis process. Each investigator should use the same qualitative research method to gain the data (interview, case study, focus group, or observation). The investigators therefore provide validations to each other's results.

- **Within-Method Triangulation**: this is the use of several of the same research or data collection methods in combination. For example, multiple interviews or multiple focus groups

- **Between - Method Triangulation**: this is the combination of methods and is typically seen in mixed method research, qualitative and quantitative data can be used as sources of validation of key research themes.

- **Triangulation of theories**: This involves the use of multiple perspectives or multiple theoretical concepts to interpret a single set of data.

The triangulation method that will be used in this research is the 'Between-Method 'approach as three differing data sources will be used, 1. Qualitative data from the pilot study, 2. Quantitative data from questionnaire and 3. Qualitative data from interviews.

3.4.4 Sampling

The population size that is accessible to the researcher is approx. 180,000, these are registered UK sellers on a large online multinational marketplace platform. It is not possible to survey this number of organizations so a narrower approach will need to be taken. A survey will be created and delivered to approx. 1,300 organizations. This sample is targeting 195 respondents by sending 1,300 surveys at an assumed approx. 15% response rate. The target sample will be selected at random from the total list of small organizations [Small as defined by the (European Commission, 2003), organizations with less than 50 employees and turnover less than €10M]. The sample will be determined in accordance with the approach outlined by Zikmund, Babin, Carr & Griffin (2013). This involves creating a sample frame which is a list of elements or characteristics of which the population can be narrowed and so the sample can be drawn. There are two main considerations for the sampling frame. 1. The frame may generate numbers that are too broad and 2. The frame will exclude organizations that may add value to the study. The frame must therefore be carefully considered so that it achieves the required number of sample respondents and is representative of the population.

Figure 27: Sample Strategy Visualization

Total Population - Approx 180,000

Sample Frame - Small Orgs in the UK approx 45,000

Planned Sample - 1,300 email surveys

Actual Sample (number of respondents) targetting 195 responses 15% response rate
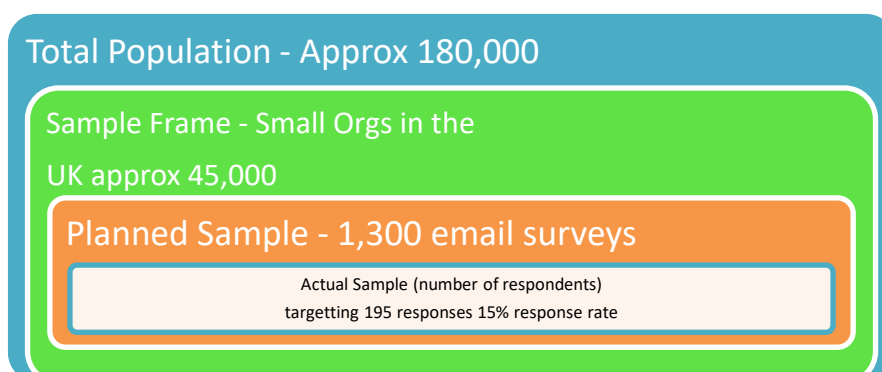
Adapted from (Zikmund, et al., 2013)

The preferred method of sampling would have been a non-probability based 'quota sampling' technique. This is described by Zikmund (1997) as a "*procedure that ensures that various subgroups of a population will be represented on pertinent characteristics to the extent that the investigator desires*" (Zikmund, 1997) this technique would allow representation across different types of sellers. The sample frame will determine these seller types based on what categories they sell into, (to be determined at a later stage). In order to determine the sample size, the method proposed by Cochrane (1977) in Gill & Johnson (2010, p. 128) has been adopted. This calculation requires a sample of 195 respondents to ensure a representative sample (adjusted for population size of 45,000).

Equation 1: Sampling Equation Source - Cochrane (1977) in (Gill & Johnson, 2010, p. 128)

$$n = \frac{P(100-P)Z^2}{E^2} \qquad n = \frac{50(100-50)1.96^2}{7^2} \qquad 196 = \frac{9604}{49}$$

n = sample size required

P is the percentage occurrence of a state or condition *(50% was chosen so is representative of at least half the population)*

E is the percentage maximum error required *(A high confidence is required so max 7% error was chosen)*

Z is the z value corresponding to level of confidence required

$$n^1 = \frac{n}{1+n/N} \qquad n^1 = \frac{196}{1+196/45,000} \qquad 195 = \frac{196}{1.0043555555}$$

n = calculated sample size   N is the total population

n^1 is the populated adjusted sample size

In reality the results from the initial questionnaire will depend on those participants who are willing to respond, rather than being faced with a sample that a selection method can be applied to in order to gain a representative sample. The sampling technique will therefore be a 'convenience sample' based on those participants willing to respond. Within the sample of data there will be a '*nonresponse bias'* and this factor must be considered. "*Nonresponse bias is the departure of the sample statistics from their true population values owing to the absence of response from some portion of the population that differs systematically from those portions of the population that did not respond".* (Rea & Parker, 2014, p. 315). In order to maximize representation and mitigate nonresponse bias, recommendations made by Baruch & Holtom (2008) can be adopted. Recommendations such as; pre-notifying participants, promoting the survey, designing the survey carefully and managing survey length are the most feasible options to promote response rates. In order to identify if nonresponse bias is present in the data Baruch & Holtom (2008)

recommend that a comparison of early and late responses be conducted and that non-respondents be re-surveyed and given a second opportunity to respond. An analysis of the response population vs the actual population can also be conducted to identify any groups or areas that are under-represented and target those non-respondents for resurvey.

Sampling for Phase Two:

For the second phase of the research a sample of organizations from the group of respondents will be contacted to ask if they would like to participate in a more in-depth piece of research which will be in the form of a semi-structured interview. A sample from outside the initial group of respondents can also be selected. These respondents will be from one sector/ product category in the first instance. The sample for this stage is not yet known, it will depend on the respondents from the survey stage and their willingness to participate in a second stage. Again, this will be following a 'convenience sampling' strategy and so may incur sample bias. In order to overcome this an analysis of the 'gap in representation' can be conducted and follow-up contacts via email and telephone calls to targeted desired participants can be conducted in order to get the most representative sample for the second phase. When the framework is ready to be tested a sample group from a different sector / product category will be selected to test the framework.

3.4.5 Grounded Theory Sample Sizes from PhD Research

In order to determine if the target samples are adequate, the following study was consulted to determine if the expected sample satisfactory for this type of PhD research. Mason (2010) collected sample sizes from 560 different PhD research theses' and what the stated methodological approach was. The findings below in figure 28 show that for grounded theory and for case study research (which is the most similar to this method) the mean sample sizes were between 32 and 36 but were as high as 87-95.

It has therefore been determined that the target sample size is adequate for this type of research.

Figure 28: Results of Mason (2010) showing PhD Research Sample sizes for each Methodological Group

	No. of studies found	No. of studies after inclusion criteria applied	Range		Measures of central dispersion			
			High	Low	Mode	Mean	Median	St. Dev.
Case study	1401	179	95	1	40	36	33	21.1
Grounded theory	429	174	87	4	25	32	30	16.6

Source: Mason (2010)

3.4.6 Analysis

The quantitative data will be collected in the survey tool and Microsoft excel will be used to analyze the data. This is the software that the researcher is most familiar with and is accessible via the software provision of the university. It will also save time using this software by not embarking on learning how to operate a new data analysis tool. Analysis will produce the themes and concepts that will form the basis of the more in-depth analysis being conducted in phase two. The data collected in transcription form, from the semi-structured interviews will be analyzed using software such as NVIVO as well as by hand.

The framework discussed in section 3.3.1 as well as Figure 29 will be adopted to give clear guidelines on how to analyze the qualitative data in order to build grounded theory. In order to follow these guidelines, the qualitative data must undergo a coding process. The coding technique involves breaking the raw data (in this case transcripts) into manageable pieces and brainstorming to derive its possible meanings. Then defining concepts to assign labels to the meanings. These concepts can then be categorized in order to determine higher level categories to which properties are defined that characterize the category. Comparative analysis can then take place between each interview and case.

Figure 29: Visualization of Open Coding Strategy
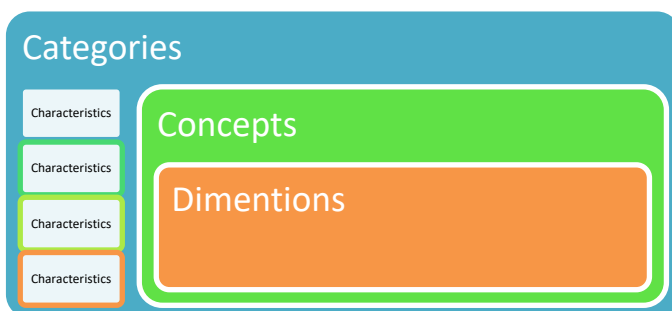
Adapted from (Corbin & Strauss, 2005)*.*

The biggest difficulty with this technique will be having the time to analyze each interview. The process is labour intensive and very involved but provides rich data in order to theory build. To limit the impact of this, each interview should be transcribed immediately after the interview and software such as NVIVO can be used to generate some initial data such as key words and phrases seen in the transcriptions in order to use in the detailed 'open coding' exercise.

3.4.7 Theory Building

One of the Key considerations for this research will be that the theory building using the grounded approach should occur at the same time as the analysis and should be an evolution rather than a post analysis outcome. *"Both analytic induction and grounded theory emphasize how data analysis and data collection should occur simultaneously each recursively referring back to each other in order to establish concepts and categories, which at early stages are in a constant state of flux"* (Gill & Johnson, 2010, p. 175)*.*

As discussed in the previous sections it is vital and thus part of the research design for this theory building to be recursive and to occur at each iteration of the qualitative research. The themes categories and newly formed hypotheses can then be tested through deduction in the next interview along with continued collecting of data for induction, building the theory further. Once the data collection has reached saturation, no more themes are emergent and no further data is required to explore themes, then the data collection can reach a conclusion and the final theoretical concepts be presented. It is important to keep in mind the scope of this research to avoid this approach going out of control and it is also important to be mindful of the time constraints of the research when deciding whether to pursue a further iteration. It will be important to clearly prepare the interview, define objectives and subject matter to cover before each one is conducted.

3.5 Theoretical Saturation / Data Saturation

One of the key features of grounded theory is to produce enough data through the sample so that the patterns, concepts, categories, and dimensions of the given phenomena can develop and theory can be derived. It is therefore essential to determine a sample size that will generate sufficient data. Even though a sample target has been set for the research, an appropriate sample size for grounded theory research is determined by a notion known as theoretical saturation. This is a notion whereby the data collected generates no new benefit for the research and is defined by Bloor & Wood (2006) as "*The continuation of sampling and data collection until no new conceptual insights are generated*" (Bloor & Wood, 2006, p. 165). Strauss and Corbin (1998) assert that theoretical saturation occurs when:

1. No new or relevant data seem to emerge regarding a category.
2. The category is well developed in terms of its properties and dimensions demonstrating variation.
3. The relationships among categories are well established and validated.
(Strauss & Corbin, 1998, p. 212)

Using this notion, the data collection will be ended once theoretical saturation takes place and no new themes and categories emerge from the data.

Due to the research covering both qualitative and quantitative data collections it is important to acknowledge that theoretical saturation is a notion synonymous with qualitative research methods. To address theoretical saturation for the quantitative data a similar notion know as data saturation (which is applicable to both qualitative and quantitative data) is proposed by Grady (1998), who states that data saturation is the point at which: "*New data tend to be redundant of data already collected…It is then time to stop collecting information and to start analyzing what has been collected*" (Grady, 1998, p. 26). As above the data collection will be ceased once no new data that contributes towards the emergent themes is being generated.

3.6 Contribution to Knowledge

Figure 30: Contribution to Knowledge
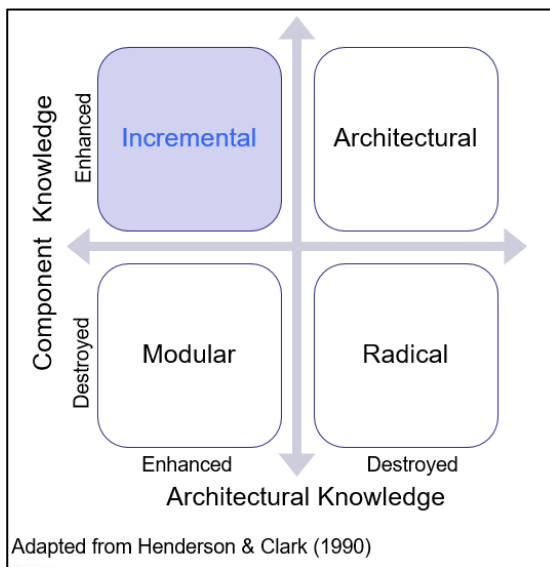
It is expected that a model / framework will be developed based on empirical data / evidence from real organizations. The model/framework should conceptualize the strategic approaches taken, outlining how different approaches can drive business performance with measurable qualifications. The model will address some of the lack of academic research and understanding in this field and can be used to make generalizations about existing future situations covering the same and similar contexts. It is also expected that the newly generated theory can be used to confirm some of the more general theories applicable to big data led marketing in the wider context as well as challenge or confirm some of the pre-conceptions and assumptions that are made in some of the discussion based academic literature, concerning the experience of marketplace sellers using online marketplace platforms.

When looking at the knowledge contribution this research will provide, the innovation framework proposed by Henderson and Clarke (1990) is useful to visualize what type of knowledge contribution that will be gained. It is expected that the knowledge gained through this research will be in the 'Incremental' quadrant of this model, as it is expected to enhance both the architectural and component knowledge within the chosen field. The framework that will be developed is expected to have practical use for new or existing marketplace sellers, to use as a template / guide or reference point for the creation of marketing strategy that caters for the nuances of their selling environment.

3.6.1 Expected contribution

In a study conducted by Wiesche, Jurisch, Yetton & Krcmar (2017) on information systems research conducted using Grounded Theory methodology; they found that 42% (18 of 43) of the research articles analyzed, produced models as an outputted research contribution.

Table 23: Types of Knowledge Contribution

Form of Research Contribution	Description	Reference	Number %
Theory	Statements of descriptions, definitions of variables, their relationships, justifications for those relationships, and the boundaries of the theory.	Sutton and Shaw 1995 Whetten 1989	10 (23%)
Model	Definitions of abstract variables and their relationships	Markus and Robey 1988; Sutton and Shaw 1995	18 (42%)
Rich Description	Narratives of empirical observations without abstractions	Hambrick 2007; Van Maanen 1990	15 (35%)

Source: (Wiesche, et al., 2017)

It is expected that the outcome of this research and contribution be aligned to these findings, a model is expected to be proposed upon analyzing and interpreting the abstract variables and their relationships. Nonetheless it is also expected that to a lesser extent the contribution to that model will consist of rich descriptions and developed theory built up inductively from empirical observations. It is not yet known what type of model or framework will be produced as this largely depends on the conclusions drawn from the data collected from the research.

Figure 31: Visualization of the expected contribution
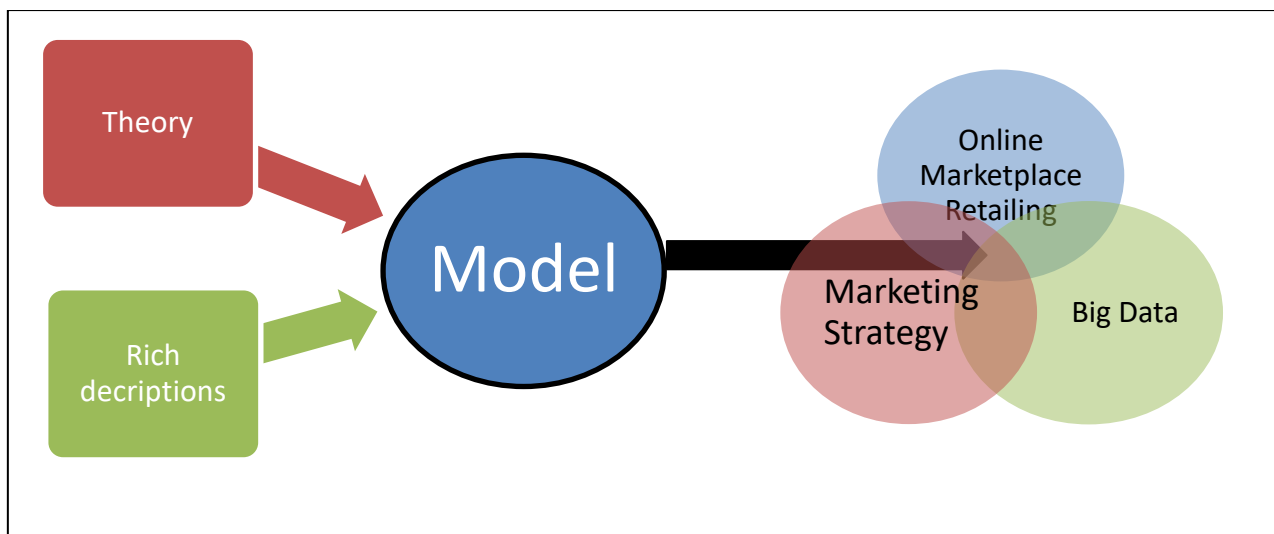
Source: The Researcher

Chapter 4. Data Collection and Data Analysis Methods

4.0 Introduction

This chapter will outline how the research was conducted and the data collected. It will also outline the analysis tools and techniques that were applied to the data once collected. Some of the assumptions or plans made at the research design stage were modified or adapted as the research evolved, most notably the sample size.

4.1 Research Execution

The research was conducted in accordance with the approach outlined in section 3.3. Firstly, a pilot study was conducted to gather data which was used to inform the themes outlined in the questionnaire. The questionnaire was the main part of the quantitative data collection which was gathered electronically using Qualtrics, an online survey tool. Finally, Qualitative data was collected via a round of semi-structured interviews, which were conducted with volunteer companies. Thematic analysis of the interview data was conducted using NVIVO, a qualitative data analysis tool. Finally, using emergent themes, a triangulation of the data from all three sources was conducted and linked to literature findings. These formed the basis of the theoretical discussion in Chapter 6.

4.1.1 The Pilot Study

During the first quarter of 2018 data was collected from a public forum known as Amazon seller central. A sample of forum posts were taken after searching for a number of search terms related to the research subject, terms such as Marketing, data, report, promotion, price etc. A full list of the search terms can be found in table 24. These searches generated a sample of 1,249 forum posts or threads, with 18,735 replies to the original threads. This totaled 19,984 individual posts in text format. This data was analyzed using NVIVO software to do simple text frequency analysis technique and these were examined for themes in order to begin to inform the structure and themes of the final questionnaire.

4.1.2 Analysis of the Pilot Study

The Main themes from the seller forum data are summarized below:

Table 24: Forum Data Analysis, Key Themes Identified

Search Criteria	Theme	Description
Marketing	Marketing	Sellers discussed ways they can use sponsorship or featured products as a primary source of marketing. Discussions were balanced across being positive and negative.
	Email customers	Sellers asked each other is there is a way to email their customers to send marketing materials
	Packaging	Sellers asked if they could add flyers to packaging

Search Criteria	Theme	Description
Data	Reviews	Sellers raised concerns that customer reviews were not accurate or that Amazon were responsible for the negative reviews, not them.
	Errors	Sellers raised a number of concerns over the accuracy of the data in reports.
	Reports	Sellers asked for many differing reports that seemingly were missing, customer data was the main data that was not available.
Product	Generating Listings	Sellers discussed how to generate page data quickly using uploads or templates
	Search results	Sellers discussed how to gain better search results
Promotion	Advanced warning	Sellers raised concerns over Amazon and other sellers running promotions and if they could get advance warning, particularly when amazon had events.
	Advertising	Sellers asked each other how they could advertise their product or how they could promote their products in the search
	Sponsoring / Prime	Sellers asked primarily for experience of paying for sponsored search results or offering Prime for customers, in terms of return on investment.
	Packaging	Sellers wanted to influence the type of packaging used and asked if they could insert marketing materials into products or delivery packaging.
Price	Costs	Sellers asked a number of questions about seller fees and impact on profitability.
	Damages	Sellers raised issues that Amazon were damaging their items in the warehouse or in transit.
	Profit	Sellers raised concerns over similar items listed not being sold at a profit. Or they asked what kind of markup other sellers used to remain competitive.
Competition	Marketplace	Sellers discussed various differing theories why some seller's listing appeared at the top of search results and theirs did not. Sellers also discussed amazon products that competed with theirs alongside fluctuating prices.
	Buy-Button	Sellers discussed and gave advice on various ways of gaining the buy-button which happens when there are multiple offers for the same product and the "algorithm" determines which one is displayed to the customer.
Report	Errors	Sellers raised a number of concerns over the accuracy of the data in reports.
	Accounts / Accountant	Sellers asked for reports that could be used to give to their accountants.
	Reputation	Sellers raised concerns over their brand reputation when discussing customer feedback

Source: The Researcher

Word clouds were generated using NVIVO software and can be found in Appendix 4. The themes above derived from the pilot study, were used to steer the questions in the final questionnaire and helped shape the themes and fine-tuned the questions that were used to explore each theme in more detail.

4.2 The Questionnaire

The research questionnaire was composed of five sections outlined below:

1. **Consent form and general information** about the respondent.
2. **Company profile questions**: size of the company, turnover and product categories sold etc.
3. **General marketing questions**: questions about marketing strategy and decision making.
4. **Data and information questions**: questions considering data, what it is used for, reporting, data accuracy.
5. **Marketing decision questions**: Likert scale questions on product, price, promotion, inventory and customer satisfaction.

4.2.1 Format of the Questions

The questionnaire was designed to gather as much data as possible in the small amount of questions. A variety of question types were used such as; number scales, likert scales (agree>disagree), multiple choice with an 'Other' field for free text, tick all that apply statements as wells as free text answers. The questionnaire was designed to last no longer than 20 minutes in order to maximize response rate. This was in line with recommendations proposed by Revilla & Ochoa (2017) that surveys should be no longer than 20 minutes to coincide with an adult's average attention span.

4.2.2 Detail of the Questionnaire Section by Section

This section outlines the structure of the questionnaire and the content of each section, some rationale as to the intent of the questions or reason for adding them has been provided. The full questionnaire can be found in Appendix 5.

Consent Form and General Information

This section of the questionnaire was designed to gain consent for the participant, the questions asked were directly from the Sheffield Hallam University consent form templates. In the consent questions it was made clear that the information collected would be anonymized and that they could ask any further questions at any stage. The name of the respondent and their position in the company was recorded but not retained.

Section 1: Company Profile Questions

The aim of this section was to collect a clear overview of the company responding. To learn about the portfolio of the company, its turnover, its employee size, what online marketplaces are used and lastly how their inventory is delivered to their customers. One particular key data point was gathering data about their selling modus operandi, i.e. what is the makeup of their sales (online, physical store, multiple marketplaces etc.) this could then be used to determine whether there is any particular statistical significance or

difference in companies who solely sell on one marketplace vs multiple or in companies that have multiple selling channels online and offline. A question was added to determine how the company delivered their inventory to the customer as it was a key theme in the forum data, with sellers asking about using Amazon fulfilment services which include inventory holding and delivery services.

Section 2: General Marketing Questions

This section focused on Marketing decisions and marketing strategy, namely who is responsible, what kind of marketing strategy they have, what control they feel they have over their own strategy and whether or not they use some key traditional marketing models when compiling their overall marketing plans and strategy. The questions concerning control (which is split down into sub categories such as product, price, promotion etc.) were added as a direct link to the research questions. This was in order to determine whether the companies felt that they were in control of their own strategies, or that they were a passenger of the marketplace with little control over marketing plans and strategy.

Section 3: Data and Information Questions

This section focused on what types of data the company uses, where does it come from and for what reason do they use it. A specific question was added about the accuracy of the data seen on the online marketplace, as this was a common theme raised by the sellers in the forum.

Section 4: Marketing Decision Questions

This section was focused on marketing and marketing decisions. The questions were all using a likert scale disagree > agree and a series of statements were presented (49 in total) and the participant was asked to rate how much they agreed with each statement. The statements were split into themes; product, price, promotion, inventory and customer satisfaction. A number of the themes seen in the forum data were explored in these questions / statements.

For example, in the customer satisfaction section, questions were asked about their ability to email marketing material to customers, if their customers aware of their brand and if they have influence over customer loyalty. All these were common themes seen in the forum data.

Final Section

This section thanked the participant for their time and asked if they would be willing to participate in the second part of this study which would be a participant interview using semi-structured questions. If they opted in an email address was taken.

4.2.3 Sample Collection

The mailing list for the questionnaire was compiled using email addresses collected from the Amazon.co.uk and eBay.co.uk websites in Q1 2017 and Q1 2018, these contact details were saved and used during the research period between 2019-2021 (Survey conducted in 2019 and interviews in 2021). On each website

each seller has a merchant page containing contact details (business address, customer service address, telephone number and email). Some pages do not contain an email address, however, research was conducted and contact details were obtained via the Companies House website or via simple google searches of the companies which could have directed to their own websites where contact details were displayed. A total of 1,860 email addresses were gathered over six months and stored in the Qualtrics survey website using a university account. Once the questionnaire was created and tested, it was issued to the whole mailing list on the 28th May 2019. The deadline for questionnaire submission was set to the 11th June 2019 giving 14 days to respond. A reminder was issued 3 days before the deadline. Details of the email introduction, asking for participation can be seen in Appendix 6, 7 and 8. After the deadline 38 responses were gathered. In retrospect, more results may have been gathered if more time had been given for the sample to respond, this may have been a factor in the low response rate. In order to generate more responses, throughout Q3 and Q4 2019 a number of partially completed questionnaires were followed up on, via telephone calls to the companies and a number of marketing managers were contacted to ask to fill in the questionnaire directly. This gathered an additional 17 responses. A grand total of 55 responses were collected in all, a response rate of 2.96%. This was 28% of the responses required to meet the statistical sample calculated in section 3.3.2, however, given the length of time taken and manual work (cold calling) required to generate responses it was decided to the draw the line at a sample of 55. This was after examination of the additional questionnaire data being generated, it not yielding any additional insights. This is known as 'theoretical saturation' and is discussed in Corbin & Strauss (2005). Due to this it is assumed that the sample size is adequate to represent the population given that the additional data gathered from the 19,984 individual forum posts supplement the data gathered from the questionnaire.

4.3 Data Ethics and Governance

The research was be conducted in accordance with the university research ethics, integrity and practice policy and approved by the university research degree committee.

Considering the literature surrounding ethics in management research an investigation into the most frequent appearances of ethical principals in the most popular codes of ethics was conducted by Bell and Bryman (2007). These are outlined in Appendix 9, along with some considerations for each principal that applies to this research. Ethics submission through the university ethics management & approvals tool (Converis) was completed and was signed off by the university ethics board in December 2017. Ethic Review ID: ER5337571. It is worthy of note that at each stage where data has been collected, the participant has been asked for consent and has been offered a way to opt out. The questionnaire email also had a link to have the email address to be removed from the mailing list. The data and the companies involved have been anonymized so that no individual or company can be identified. Each interview participant was sent a copy of their transcript and asked if it was a fair representation of their responses. They were given the opportunity to make any amendments to remove any statements they wished to omit.

4.4 Analysis of the Quantitative Data

The data gathered by the questionnaire was analyzed in the following way:

The general company data will be displayed in graphical form, both using bar charts and pie charts to demonstrate the proportions of the companies that make up the sample. The company data will be used to segment the data from the latter sections, to examine if there is a difference in response from those with more experience on the websites or differences in responses from those who use distribution services provided by the marketplace, to name two examples. This segmentation will allow for deeper insights and understanding to be had from the data. It can also be used to formulate the questions that will be used in the second phase of the data collection, the semi structured interviews.

The Likert Scale Questions

The respondents were asked a number of questions where the action was to rate a statement based on a 1 to 5 likert scale starting from 1. Strongly disagree to 5. Strongly agree. These questions will be analyzed based on a weighted score 1 to 5. The data collected in these questions can be described as ordinal data based on a five-point Likert scale. This will be scored based on a simple weighted average (without negative weights for negative scores), which based on the scoring of likert data as described by Galán-García, Merino, Martínez & De Aguilera (2017, pp50). The advantage of this method is that the sentiment of the population can be easily captured using this weighted score and individual respondent scores and ranges can be compared to the weighted scores.

For example:

Table 25: Example of Likert Scoring

Agree level	Strongly Disagree	Disagree	Neither agree or disagree	Agree	Strongly agree
Score	1	2	3	4	5
Count	1	2	0	13	14

Source: The Researcher

The example above shows the distribution of 30 responses to a question, the score will be calculated as a weighted sore on the scale as follows:

Equation 2: Likert Scale Scoring Equation

- Formula: 1 x strongly agree + 2 x agree + 0 x neither + 13 x agree + 14 x strongly agree = **agree score**
- Answer: ((1x1) + (2x2) + (0x3) + (13x4) + (14x5)) /30 = **4.2**

Strongly Disagree	Disagree	Neither Agree or Disagree	Agree	Strongly Agree
1	2	3	4	5

Source: The Researcher

For the questions that do have a likert scale, a score of 3.0 could mean a situation where responses are evenly split across all categories, or it could be a situation where 100% of responses are neutral. To clear this up the proportion of responses that fall into the two agree categories or the two disagree categories will also be used to examine trends, this is due to the nature of the scale. Using the example above it can be said that 90% of respondents agreed or 10% of respondents did not agree with the statement. This is a clearer way for gaining insights from the data. The benefit of using this method is that the weighted results can be aggregated to ascertain the homogenous response to the question in order to derive a generalization. The limitation of this is that polarized responses could be neutralized if the weighted score is used. To overcome this the range in the scores will be monitored for large range disparity.

4.5 The Semi Structured Interviews

Five semi structured interviews were conducted between January and March 2021. Three of the five participants were involved in the survey stage of the research and volunteered for the interview stage of the research. The remaining two interviewees responded to a post on an online forum asking if they would like to participate in academic research. Due to the COVID-19 lockdown, the interviews were conducted online via video chat, recorded and transcribed using a semi-structured interview template. Each participant was sent a transcription and asked if it accurately represented their views and data. This validation was done to avoid researcher bias and any possible misinterpretations of the discussions. All participant data was then anonymized to keep their discussions confidential. The qualitative data was analyzed using NVIVO software, then examined for themes and categories which were built up from the qualitative data. The approach taken is outlined in section 4.5.2 below. Theoretical saturation was reached after four interviews as no new themes or data emerged beyond interview three. The fifth interview was conducted with a business whose model was completely different from that of the first four (first four sourced products from China and shipped from the marketplace premises and the fifth business bought second hand goods) to try and prove saturation or to generate more themes / data. This is discussed in chapter 6.2.

4.5.1 Analysis of the Qualitative Data: Thematic Analysis of the Interviews

One of the most common forms of analysis conducted on qualitative data is thematic analysis. Thematic analysis using coding has been used in grounded theory research since its inception.

There are two approaches that have been evaluated in order to select the most appropriated approach for this research. These are; the approach discussed by Corbin & Strauss, (2005), using a nine stage 'open coding' as an analysis technique; generating theory from coding themes, concepts and categories. The second method was an approach discussed by Thomas (2016) which is largely the same technique, except it focuses on the most relevant themes that are linked to the research outcomes, rather than incorporating all of the smaller themes which may have less relevance to the research outcomes. Thomas' technique is

also more streamlined than Corbin & Strauss' nine stage approach. The chosen technique for this research is the one proposed by Thomas (2016) for two reasons, the first is that the interviews will be the second phase of the research, therefore the expected output of the data generated in phase two will naturally be more focused on the research objectives and the second reason is the limitation of time. In the interest of time the most relevant themes will be focused on and the least relevant dismissed.

Thomas' approach is very much aligned to the nine-stage grounded theory building framework proposed by Glaser & Strauss (1968), in the fact that it is still inductive and still aimed at generating theory. Thomas described five key characteristics of analyzing themes for inductive analysis, these can be seen below:

1. **Category label**: a word or short phrase used to refer to the category, the labels should have meaning.
2. **Category description**: a description of the meaning of the category, which outlines the key characteristics.
3. **Text or data associated with the category**: examples of text coded into the category fully represent the characteristics of the category.
4. **Links**: Each category may have links or relationships with other categories.
5. **The type of model in which the category is embedded:** The category system may be subsequently incorporated in a model, theory, or framework. As the expected outcome of this research is that an academic model will be created then this categorization is wholly appropriate guide for this research.

NVIVO will be the research tool used for this analysis at it allows for categories, characteristics and links to be made across the data, making it an ideal tool to conduct this analysis.

In order to maintain the grounded approach it will be important to ensure that discarded themes are properly acknowledged and justification provided for their disposal. This is so that the results and theory that have emerged from the data, has truly been grounded in the emerging themes and not from the bias of the researcher. "*One of the main tenets of grounded theory is that coding should emerge from the data. That is, any concept in the analysis should be supported from the data rather than from preconceived models, theories, or hypotheses*". (Bringer, 2016).

Full justification of discarded themes will therefore be provided as part of the evaluation of the results in chapter 6.

4.5.2 Analysis of the Qualitative Data: NVIVO Template

In order to keep each interview results consistent, a template will be used in the NVIVO software to keep the questions and answers in a structured format that is consistent for analysis to take place. The chosen approach will be template analysis, which is described in King & Brookes, (2017). *"Thematic analysis refers to a broad approach to organizing and interpreting qualitative data... All styles of thematic analysis include two inter-related core processes: defining themes that characterize significant features of the data, and*

organizing them in some kind of structure that represents conceptual relationships between the themes"
(King & Brooks, 2017). An example of the template used can be seen below.

Figure 32: Example of the Semi Structured Interview NVIVO template

Source: The Researcher

4.6 Data Outcome at Each Stage of the Research

Below is the outcome of each stage of the research. At each stage themes that emerged from the data were used to inform the next stage of the research i.e. themes from the forum data informed the type of questions asked in the questionnaire, then the questionnaire themes were used to construct the questions asked in the interviews. This approach was taken to ensure the research was kept in line with the grounded theory approach, where themes emerged from the data, which informed the direction of the next stage of the research.

Figure 33: Visualization of the Research Data Outcomes
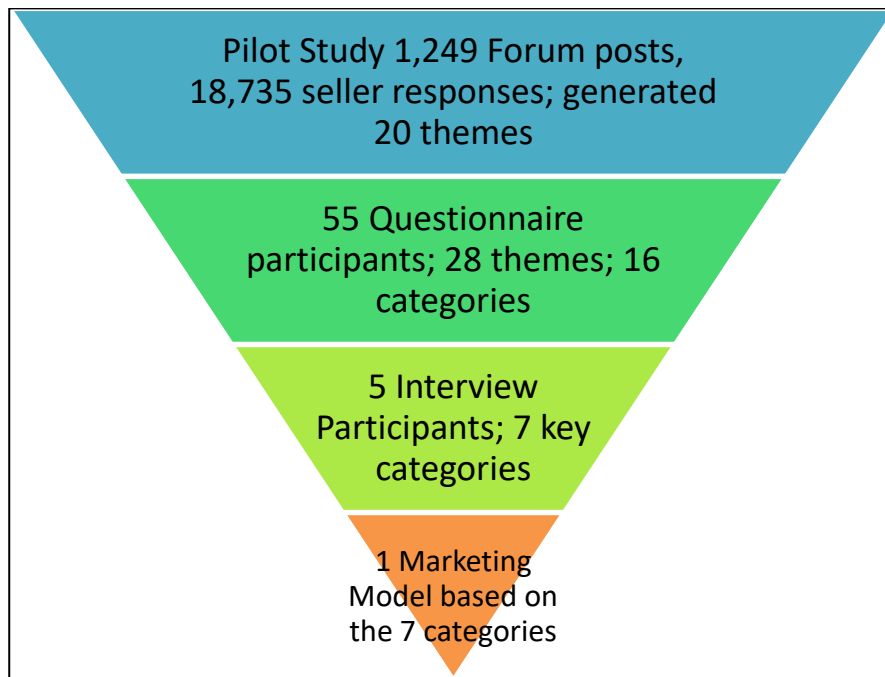
Source: The Researcher

As per the research by Mason (2010), discussed in chapter 3.4.6 Grounded Theory Sample Sizes from PhD Research, the mean sample size for a PhD grounded theory research was 36 participants. As this research generated data from 57 unique businesses and was grounded in data collected from 1,249 forum posts, it can be determined that the sample sizes were adequate for this type of research.

4.7 Chapter Summary

This chapter has summarized the research execution as well as the format of the questionnaire and semi structured interviews. The data that was gathered and the analysis that was conducted at each stage of the research was also summarized. Finally, an overview of the outcomes at each stage of the research was discussed and how that strategy ties into the grounded theory approach.

Chapter 5. Results and Findings

5.0 Introduction

This chapter will focus on the detailed statistical analysis and results of the questionnaire conducted electronically and the results of the semi-structured interviews, discussion and triangulation will be made across the two sets of data and the theory / literature to gain deeper insights into the area of big data marketing on online marketplaces, with the aim of producing a model / framework which will contribute to the wider theory and body of literature in this field. The chapter will firstly outline the quantitative results from the questionnaire, then, an outline of the results from the interviews will be presented, with triangulation exercise performed, linking all the results from the forum data, the questionnaire, the interviews and the literature together. Finally, the themes emerging from all the findings will be outlined.

5.0.1 Sample Frame

As discussed in section 3.3.2, the sample frame was determined to be small companies of 50 staff or less who have €10 million turnover or less. The survey was responded to by 55 individual companies each meeting this sampling criteria. There were questions pertaining to the sample frame in the first section designed to allow results to be disregarded if they did not meet the frame's criteria. As the companies are small, there was an expectation that the respondents could have been from any number of roles from a managing director to a dedicated marketing manager, there was also an expectation that companies could have been sole trading individuals or family run businesses, so the owner would be the respondent.

5.0.2 Questionnaire Response Rate

The original target responses as described in section 3.4.2 Sampling was 1,300 emails to generate 195 responses at a 15% response rate. The first tranche of emails was sent (sample of 300) to gauge the response rate, after which a further second tranche would be sent, with the aim to achieve the target sample of 195. After the first 300 emails were sent the response rate was only 3% so it was decided to use the rest of the sample including the reserve group to try and generate the responses. After the second tranche it was clear that without contacting businesses direct the number of responses needed were not going to be reached. A further 17 responses were generated after contacting businesses directly via telephone LinkedIn and email. Table 26 below shows the response rate from each tranche, resulting in the 55 responses collected at a response rate of 2.86%.

Table 26: Summary of Questionnaire Response Rate

Stage	Surveys dispatched	Responses	Partial Responses	Declined (unsubscribes)	Response rate
First Tranche	300	9	3	2	3%
Second Tranche	1,560	29	11	18	1.86%
Contacting Directly	58	17	0	28	29.3%
Total	**1,918**	**55**	**14**	**48**	**2.86%**

Source: The Researcher

5.0.3 Questionnaire Response Representation

In order to determine if this convenience sample was a valid sample a test devised by Landers and Behrend (2015) was used. They recommended two criteria to explore validity of convenience samples: sample relevance and sample prototypicality. "Sample relevance refers to the degree to which membership in the sample is defined similarly to membership in the population… Sample prototypicality refers to the degree to which a particular research case is common within a larger research paradigm" (Landers & Behrend, 2015). As all the participants fit the original sample frame and the level of theoretical saturation was reached (i.e. no new data, correlations or differing themes emerged) when 55 responses were generated, it can be inferred that the sample was adequate. Theoretical saturation is discussed in section 5.0.4.

In terms of representation, there are a number of similarities between some demographic and selling category results seen in this research, compared to the annual seller report conducted by Jungle Scout in 2020. For example, the top 2 selling categories in the results were found to be Home and Toys which is aligned to the global numbers. Also 70% of respondents said they used marketplace fulfilment services compared with 66% in the global data. These similarities in the company profile data lead to a higher confidence that the sample is representative of the population.

5.0.4 Theoretical Saturation / Data saturation

As discussed in chapter 3.5 Theoretical saturation, the appropriateness of samples in grounded theory can be determined by if the sample and the data collected from it, reaches theoretical saturation or data saturation. The decision to stop collecting data was made once 55 participants had completed the questionnaire. The reason for the decision to stop is that after 50 participants had completed, no new data was being generated from the new participants. The data produced from questionnaire participants 51 to 55 was not enriching the data set or revealing any new themes or trends. The demographic data also showed that a wide range of differing sellers had participated, which correlated to the demographics seen in the research found in the literature i.e. JungleScout (2020). The resercher therefore determined that data saturation had occurred and ceased collection after 55 responses.

5.0.5 Questionnaire Nonresponse Bias

As discussed in section 3.4.2 (sampling), the notion of nonresponse bias was discussed as being a potential issue for this research. As a reminder nonresponse bias is, "*the departure of the sample statistics from their true population values owing to the absence of response from some portion of the population that differs systematically from those portions of the population that did not respond".* (Rea & Parker, 2014, p. 315). A number of mitigations described by Baruch & Holtom (2008) where adopted as a mitigation 1. Promoting the survey, 2. Designing the survey carefully and managing survey length are the most feasible options to promote response rates. Both of these pieces of advice were followed to maximize response rate. A method of analyzing whether there is nonresponse bias within a data set is suggested by Armstrong &

Overton (1977), they suggest that the demographics of the early and later responders should be compared and if their characteristics are similar then there is less chance that non-response bias is present. The researcher intended to follow this analysis, however, given that the desired sample size was not able to be met, it was prudent to use the full data set rather than exclude any responses. The risk of nonresponse bias could therefore not be measured.

5.1 Questionnaire Results

The following section outlines the results of the questionnaire, there are graphical representations of the results. This is structured in the same way the questionnaire was. Key figures are displayed and key takeaway points are discussed throughout this section. The final part of this will also outline the key figures and key takeaway points from the semi-structured interviews.

5.1.1 Results Section One: Company Profile Questions

The first section of the questionnaire focused on the company profiles. The data in the responses was used to check that the sample was kept within the sample frame and used to segment the data, looking for trends in responses by looking at elements such as experience (number of years of operating in this environment), turnover i.e. does sales volume or turnover influence responses and finally, do things such as having a physical store or own website have any influence over the responses.

The makeup of the respondent group is outlined below. With regards to size of workforce the majority (67%) of the respondents have 10 staff or less with only 10.9% having more than 20 staff. This validates the sample frame for the number of staff criteria.

Figure 34: Company Questions: Employee Numbers

Question	How many staff does your organization have?
Key Figures	67% of the respondents have 10 staff or less with the bulk of the remainder having 11-20 staff. This is in line with the sample frame for small business of less than 50 employees.
Key Take-away points	The majority of the organizations who volunteered to answer the questionnaire had a small number of staff.
Responses	

The turnover of the respondent group shown in figure 35 was mostly in the £100k or more buckets with the largest group having over £200K turnover. These sales figures are relatively small

Figure 35: Company Questions: Company Turnover

Question	What is the annual turnover of your organization?
Key Figures	The majority of the respondents have a turnover at the top end of the scale.
Key Take-away points	The turnover of the majority of respondent's turnover is more than £180k (71%) and (85%) earn more than £140K per year. A small number of respondents earn less than £100k.
Responses	

What is the annual turnover of your organisation in the last financial year?

	£20,000 - £39,999	£40,000 - £59,000	£60,000 - £79,000	£80,000 - £99,000	£100,000 - £119,999	£140,000 - £159,999	£180,000 - £199,999	£200,000 or More
Total	1.82%	1.82%	3.64%	3.64%	3.64%	14.55%	18.18%	52.73%

Figure 36 shows that the average earnings of lower tenured companies are lower than that of the higher tenured companies. This high tenure bucket of companies, 68% of them earn over £180K per year, with 48% earning more than £200K with the rest spread over the other lower earnings. Tenures 6-9 years has no representation at all in the demographics of the respondents. In hindsight it was probably more prudent to have the turnover brackets starting higher and moving up a larger scale. With the top answer being £200k or more, the granular detail of high earners has been lost. Some could have earned a lot more, but this data was not captured.

Figure 36: Company Questions: Number of Years the Company has Sold on Online Marketplaces

Question	Please indicate how long you have sold products using an online marketplace
Key Figures	Over half of the respondents are in the 2-5 year range of operating on the online marketplace. 37% of the respondents have 10 years or more experience of selling on the marketplace. The 10 years or more group earn the most on average £316k per year
Key Take-away points	A number of respondents have significant experience with the marketplace, selling for more than 10 years. This could skew some of the results if there is a high degree of either distrust or trust in the population. The sellers in this population could be the most insightful however.
Responses	

Please indicate how long you have sold products using an online marketplace.

Total	Under 1 year	1-2 years	2 - 3 years	4 - 5 years	5-6 years	10 or more years
	3.92%	11.76%	23.53%	19.61%	3.92%	37.25%

Average Earnings by Tenure

Under 1 year	1-2 years	2 - 3 years	4 - 5 years	5-6 years	10 or more years
£16,800	£112,950	£232,500	£157,450	£64,000	£316,300

Figure 37 shows that the majority of the respondents selling on Amazon with 74%, the second largest being eBay 13% and Etsy 4%. This differs from the makeup of the marketplace shown in table 1 in section 1.2 where Amazon makes up 59% of all online visits and eBay 35% of visits in 2019 (Mintel, 2020) therefore eBay maybe slightly under represented in the data, and results may skew towards the Amazon experience.

Figure 37: Company Questions: Proportion of Sales Across Differing Online Marketplaces

Question	**Do you sell on multiple online marketplaces or online auction sites? If so in what proportions? If you sell on only one online marketplace.**
Key Figures	Amazon comprises 74% of the respondent's sales on online marketplaces. Others included: Not on the high street, Game Alibaba and Facebook.
Key Take-away points	This differs from the makeup of the online marketplace in the UK. Amazon is 59% of the top five websites but 70% of the respondents. In this survey eBay maybe under represented vs it's total population. Other websites such as Not on the high-street have a low share in the sample.
Responses	
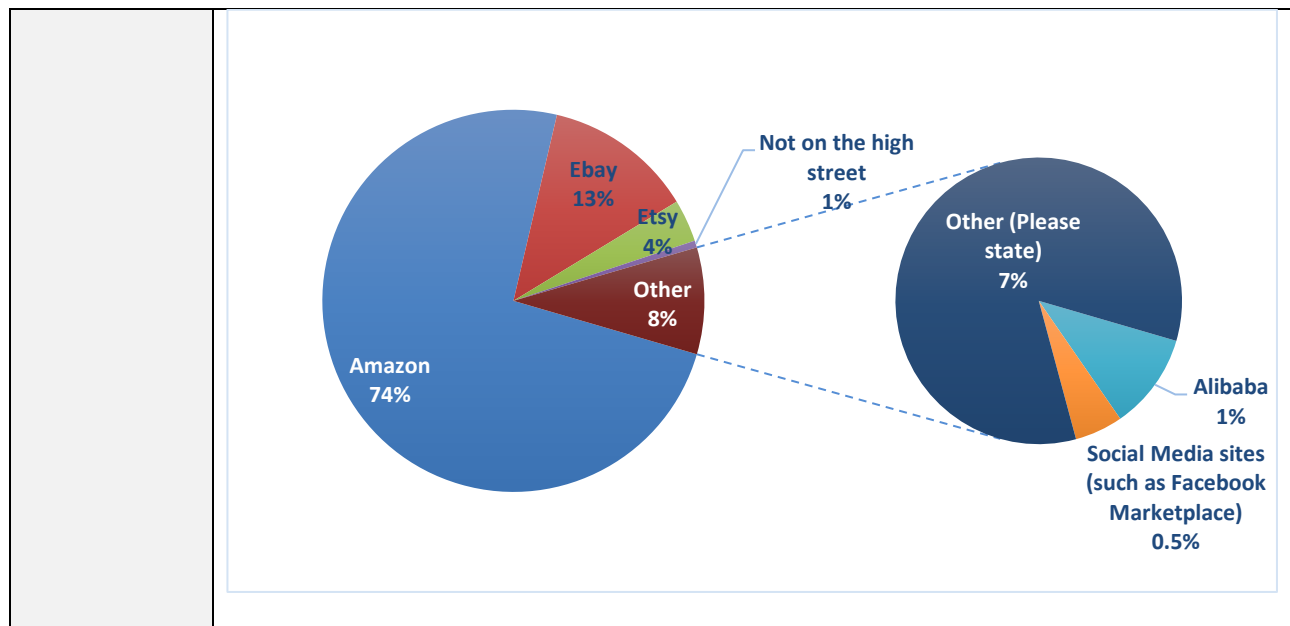
The product categories sold in this sample are spread across five key product categories where 73% of the products sold fall into; Home & Kitchen, Toys, Grocery, Clothing and Home improvement. Again this differs from the make-up of the online retail market in the UK according to Mintel (2019). The estimated the most popular categories are clothing and shoes 28%, electrical 25%, grocery 19% and other categories making up 19%. Although the repetition of the sample does not completely align to the products sold there is a valid reason, for example online grocery would naturally be underrepresented in the sample due to the capability to ship fresh, frozen and chilled products being very limited for the online marketplace seller, whereas supermarkets have the infrastructure and capability to ship perishable produce. The online marketplace seller would only be able to sell ambient longer life products in the grocery category. Similarly the clothing and shoes category would be limited to what it can sell, as only branded products could be bought in at a wholesale way to sell on by the sellers. The overall retailing market also has the segment of own brand sales from fashion retailers such as the arcadia group (Topshop/ Top man etc.) or stores where click and collect is available such as George at ASDA, Matalan etc. this capability will reduce the market segment for online marketplace sellers.

Figure 38: Company Questions: Product Categories Sold

Question	What product category / categories do you currently sell into on the online marketplace? Please indicate the approx. % of sales in each category.
Key Figures	The top five categories the sample sold in are Home & Kitchen, Toys, Grocery, Clothing and Home improvement. These make up 73% of the sales in the sample.
Key Take-away points	Despite the diverse sales groupings the sales mostly belong to five categories with a low share in the rest of the categories. This may also not be representative of the sales profile of the overall market.
Responses	
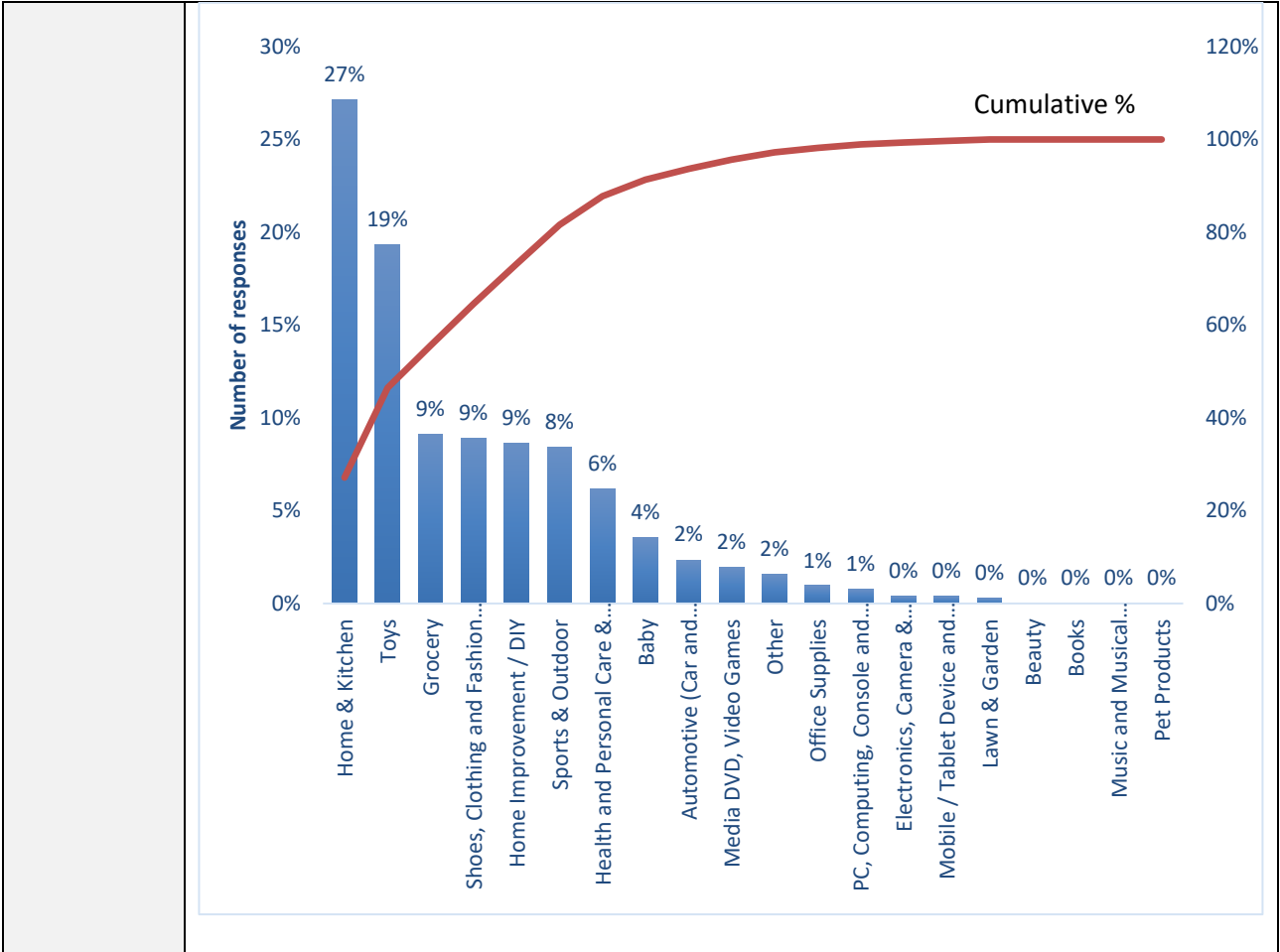
Figure 39: Make-up of Online Retailing August 2020

"Which of these products have you purchased online in the last 12 months?"

%

Category	2019	2020
Clothing, footwear and/or accessories	57	60
Food & drink	35	43
Toiletries, fragrances and/or cosmetics	33	40
Hard-copy books, CDs, DVDs, video games	39	39
Music, video, game downloads and/or ebooks	29	33
Consumer electronics (eg TV, mobile phone)	26	29
Toys and/or games	27	26
Household electrical appliances (eg iron, washing machine)	23	25
DIY and/or garden products	26	25
Furniture and/or home furnishings	29	20
Jewellery and/or watches	17	17
Any other products	11	11
I have not bought products online in the last 12 months	5	5

■ 2019 ■ 2020

Source: (Mintel, 2020)

A question was asked to determine the make-up of sales for the overall company. Figure 40 shows that 64% of the respondent's sales come from the online marketplace, 29% come from own stores both online and physical. 7% of sales come from other sources or mail order. This shows that the online sellers use their own websites or physical stores to supplement the sales taken via the online marketplace, with only 8 respondents indicating that their own stores/websites or mail-order had higher sales than their online marketplace sales.

Figure 40: Company Questions: Proportion of Sales Online or Offline

Question	**Is online marketplace selling your only sales platform? Please indicate the approx. % of total sales via the online marketplace and any other sources.**
Key Figures	64% of sales come from Marketplace sales. 19% of sales come from own websites 17% come from physical stores, mail order or other sources.
Key Take-away points	The sample group is mostly an online selling sample, 36% of whom have other ways of selling. 64% are therefore totally reliant on this marketplace to generate any revenue.
Responses	

Figure 41 shows that there is a 'more or less' even mix of sellers who have different ways of storing and shipping their own products. However, 75% of respondents have orders shipped by the marketplace provider in a proportion (48%) or all of their inventory is stored and shipped by the marketplace (27%). This indicates a very high dependence on fulfilment services from the sellers relying on inventory storage and shipping services. Over half the respondents, however, do ship their own products and are not completely reliant on inventory storage and fulfilment services. 27% of the respondents are 100% dependent on the marketplace to store and ship their products. This means that these seller's businesses have heavy dependency on the service fees and may be sensitive to price increases or policy changes. Capability and the use of marketplace services to overcome barriers in the area of capabilities will be explored in the interviews.

Figure 41: Company Questions: Inventory and Distribution Methods

Question	Choose the option that best describes your organizations inventory storage and fulfillment (shipment) methods. Note: The "fulfillment provider" refers to an organization who stores / packs and ships items on a seller's behalf (not mail/parcel carriers)
Key Figures	25% of respondents ship their own stock (A= 25%). 73% use the marketplace to fulfil all (B = 27%) or a proportion (C+D = 48%) of their orders. 27% (B=27%) of respondents are 100% reliant on marketplace services to ship their inventory.
Key Take-away points	25% of the sample are wholly reliant on the marketplace services to store and ship their inventory.
Responses	

5.1.2 Results Section Two: General Marketing Questions

As discussed in section 5.0, due to having a sample frame that included only small companies it was expected that the responsibility for the marketing strategy was to be spread out over a number of roles, rather than be dedicated to a specific marketing department / function like is seen in large companies. Figure 42 shows this expectation was correct. 100% of the respondent indicated that a single individual is responsible for the company's marketing strategy with 42% being the director level, 25% being a dedicated individual employee, and 18% indicating "myself" as the answer. 15% of respondents also indicated that no one was leading the marketing strategy for the company.
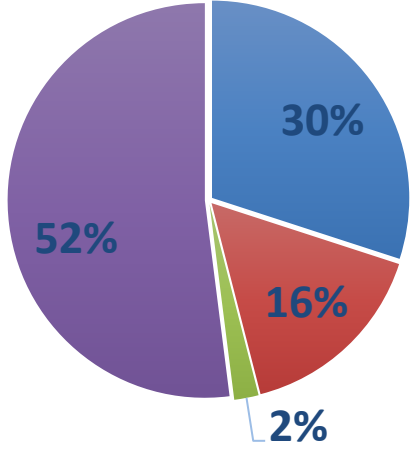
Figure 42: Data Questions - Who is Responsible for Marketing Strategy

Question	Who is responsible for / involved in setting your organizations overall marketing strategy? Please select all that apply.
Key Figures	42% of respondents have their marketing strategy set at board or director level 25% had a dedicated functional head (an individual) 18% said other – all stated "myself" as the answer. 15% had no one leading the marketing strategy, all were of <10 staff businesses 0% No respondent had a Marketing team / Agency or Cross functional team
Key Take-away points	100% marketing strategies are set by individuals not teams, groups or agencies. This poses the question are these individuals relying on instincts and/or business acumen?
Responses	

			How many staff does your organisation have?			
		Total	1-10	11-20	21-30	31-50
Who is responsible for / involved in setting your organisations overall marketing strategy?	Executive/ Board level	42%	14	8	0	1
	VP / Director or Head of Marketing	25%	7	2	3	2
	Other ("Myself")	18%	8	2	0	0
	No-one is currently leading this	15%	8	0	0	0
	Marketing team / dept	0%	0	0	0	0
	Marketing service agency	0%	0	0	0	0
	Cross functional team	0%	0	0	0	0

A question was asked in order to determine whether or not marketing strategies are formal or informal in companies that sell using online marketplaces. Figure 43 shows that just over half, 52% of the respondents have no formal strategies with regards to marketing. 30% of the respondents have all encompassing strategies and only 18% of the companies have formal strategies relating specifically to online or online marketplace selling. This was a surprising statistic that more than half of the companies have no formal marketing strategy. One follow-up question defined for the next stage was to explore this aspect. It is good to know how these companies go about marketing, do they use their own judgment as they go? Do they

know instinctively what to do based on experience? Do they plan short or longer term and if so, how is this plan formed and executed? These are all things that require in depth understanding. This notion of informal marketing planning was taken forward to the interview stage to further understand the theme.

Figure 43: Marketing Questions - Marketing Strategy

Question	Select the statement that best describes your organizations marketing strategy
Key Figures	52% of respondents do not have formal marketing strategies. 30% have all encompassing strategies that involve online selling. 16% have specific online marketplace marketing strategies 2% do have a marketing strategy where online marketplaces are not featured.
Key Take-away points	This shows that formal marketing plans are not applicable for more than half of the respondents. Only a small proportion of respondents have a specific marketing plan for online marketplace selling. This suggests that sellers are relying on business acumen and judgment instead of formal marketing strategy for this sales medium.
Responses	

The next question was relating to how much control of different elements of marketing the respondents had, it was scored based on the 1-5 disagree to agree scale and scored using the equation outlined in section 4.4. Figure 44 shows that the questions about control over customer satisfaction scored the lowest on average at 3.9, this is because the respondents feel they have a lesser degree of control over customer satisfaction than other marketing elements relating to products price, promotions and inventory placement. This could be related to the way in which customers can express their satisfaction or dissatisfaction. The majority of online marketplaces have a customer review option where the product listing is rated, customers can then add their views about anything related to the product or the experience with the seller. On some platforms they also have the option to ask questions about the product where customers or sellers can answer, some websites also have the option to add photographs. Comments questions and photographs have the potential to help or hurt sales. The low score may mean that sellers have frustrations over the customer's comments or what is posted in the photographs. This confirms the

themes being raised on the forum data when sellers were discussing customer satisfaction. This finding is one that was taken forward to be discussed in the semi structured interviews.

Figure 44: Marketing Questions - Control over Marketing Strategy

Question	**To what extent do you have control over your own marketing strategies whilst using the online marketplace?**
Key Figures	Customer satisfaction questions on average scored low 3.9 Place questions scored low at 4.1 Price, Promotion, Product questions were scored highly, scoring over 4.5.
Key Take-away points	Questions concerning Customer reviews and the 'place' questions had the lowest control scores. Meaning respondents feel they have less control over their own customer satisfaction and more control over their products, prices and promotions.
Responses	 *Figure shows weighted score for the question.*

A question was asked to ascertain whether the seller population used any academic marketing models to help define their marketing strategy. Five popular marketing models were chosen and links to their definition were provided to familiarize the respondent with the models. The results showed in Figure 45 show that on the whole most respondents 59% did use either the marketing mix (4 Ps, 5Ps, 7Ps of Marketing) or a SWOT/PEST analysis. Also 66% of respondents indicated that they use their own "in-house models" to aid their marketing strategies. This ties into the other data points surrounding the number of respondents, 52% who do not have formal marketing strategies and the data that shows the company

director or "myself" as being the marketing strategist in the company (60% of respondents). The responses show that the models proposed the majority of the respondents did not use them with the exception of the Product Lifecycle which 24% of respondents said they used partially. It was an assumption at the beginning of the research that sellers would use some sort of model when formulating their marketing strategy, but these models may not be good to use in the much-nuanced online marketplace setting. It is interesting to find that most of the companies use their own models. Could this be because the traditional marketing models are not appropriate for this setting or because the academic models are just that, academic with no practical application? It could be the case that the sellers have found their own way of navigating this space, and this research could bring to the surface a more practical way to formulate marketing strategy. The use of "in-house models" was explored in the semi-structured interviews as a result of this finding.

Figure 45: Marketing Questions - Academic Marketing Models

Question	**Do you use any of these popular marketing strategy models or frameworks when setting your company marketing strategy, choose all that apply**
Key Figures	Most of the models are not used by the respondents. Marketing Mix 44% of respondents used this fully or partially SWOT/PEST analysis was added by 15% of respondents as a "other" In-house models were used by 66% of respondents, either fully or partially.
Key Take-away points	This ties into the question about having formal marketing strategies where more than half of the respondents had no formal marketing strategy.
Responses	

Chart data table:

	Marketing Mix (4Ps or 7Ps)	Porters Generic Strategies	SOSTAC Marketing	Product Life Cycle (PLC) Strategy	RACE / PRACE Models	SWOT/PEST	I / we use our own in-house marketing strategy (not linked to any of the above)
Yes	20%	0%	0%	6%	0%	6%	51%
Yes - partially	24%	4%	14%	24%	10%	9%	11%
No	56%	96%	86%	69%	90%	85%	38%

5.2.3 Results Section Three: Data and Information Questions

The questions in this section were centered on data and the use of data within the company. Questions were asked about where the data was from, what it was used for and how the data was used in the marketing strategy of the company.

The first question was asked in order to determine who conducts data analysis in the organization. This first question assumes that all organizations used some sort of data when making decisions, no matter how small. Figure 46 shows that 43% of the companies used their own data sources only, and 35% used a mixture of data from the online marketplace in combination with their own. The remaining 22% used only data provided by the online marketplace. This shows a low to medium dependency on the data that is provided on the website the sellers use and a high proportion of own ("in-house") data being used. In terms of exploring this in more depth and the reason why a company may choose not to use data provided by the marketplace is a question that was added to ask if the data on the online marketplace was accurate. The results are discussed further on in this section.

Figure 46: Data Questions - Who Conducts Data Analysis

Question	Do you do your own data analysis that informs your marketing decisions? Choose the most appropriate sentence that best describes your organization.
Key Figures	43% of analysis is done in-house using internal data. 35% of analysis is done using a mix of internal and external data. 22% of analysis is completely dependent on data provided by the online marketplace.
Key Take-away points	A high proportion 65% of sellers use their own data to make decisions either fully or in part. With only 35% relying completely on the marketplace data.
Responses	

A question was asked to explore where the data and research is conducted, in order to examine the different types of sources that are preferred by the online sellers. Figure 47 shows that 84% of respondents

collected / research conducted, was gathered from the online marketplace and 64% of respondents said they other online stores. "Other marketplaces" were third, with 56% searching there and 36% said they collected data from physical stores. All respondents chose more than one option, not one respondent was solely limited to one source. The majority of the market research is conducted on the marketplace itself or using other marketplaces, all are very accessible public pieces of information. The reasons cited are to compare products, prices and search results.

Figure 47: Data Questions - Where is the Data from Dive Deep

Question	Do you do your own market research on the marketplace and/or other sources? Choose all that apply - Do you do this?
Key Figures	The vast majority of respondents 84% do their research on the online marketplace. Most search other online stores or other online marketplaces. 36% search physical stores. Only 4% use competitor websites.
Key Take-away points	The majority of the market research is conducted on the marketplace itself or using other marketplaces. The reasons cited are to compare products, prices and search results.
Responses	

The next question was added in order to examine if the data provided by the online marketplace was accurate, a scale of strongly disagree (1) to strongly agree (5) was used, scoring 1-5. The results of this question show that sales (4.4), price (4.4) and inventory (4.2) data were considered to be quite accurate scoring above 4 on the scale. Customer related data and competitor data was scored as being more inaccurate scoring (3.8). There was a trend in the degree to which respondents agree with the accuracy, correlating with the higher the tenure of the company was. This trend is seen in figure 48.

Figure 48: Data Questions - Data Accuracy

Question	Is reporting or data that is provided by the online marketplace accurate?
Key Figures	Sales (4.4), price (4.4) and inventory (4.2) data has been scored as quite accurate. Customer related data and competitor data has been scored as being inaccurate (3.8).
Key Take-away points	Sellers think that the product, price and inventory data is reliable and accurate, however, the data relating to customer and competitors are not accurate or trustworthy. This is subjective, as there is no way of knowing if this is true. The sellers do seem to have some dis-trust towards these data points.
Responses	*Figure shows weighted score for the question.*

When the trust / agreement score was cross examined and cross-referenced with the respondents reported tenure as a marketplace seller, there was a proportional increase in score, the more tenure the respondent had. The trust in the online marketplace data was lowest amongst the youngest respondents. The 5-6-year tenure group had the highest trust / agreement score overall. This may indicate that the more experience the sellers have with the tools and reports, the more accurate they perceive the data to be. The perceived inaccuracy seen in the younger tenure group (1-2 years) may be because they are not experienced in using the reporting or have a gap in the understanding of the data at hand.

Figure 49: Data Questions - Data Accuracy Dive Deep

Question	Is reporting or data that is provided by the online marketplace accurate?
Key Figures	Respondents under 1 year tenure have a lack of trust in the data scoring a low 2.5. The medium tenured respondents (1-5 years) have higher a trust score 3.6 to 3.9. The higher tenured respondents have a higher trust score 4 to 4.4
Key Take-away points	This tenure trend seems to show the more experience the seller has the more trust they have in the marketplace data. This could be an indicator of experience or an indicator of success i.e. the non-successful sellers dropping out at lower tenure.
Responses	 *Figure shows weighted score for the question.*

5.1.4 Results Section Four: Marketing Decision Questions

The questions in this section were split out into the 4 Ps of marketing; product, price, place (inventory placement) and promotion as well as customer satisfaction. Again, a score of 1-5 was added to the strongly disagree (1) to strongly agree (5) scale. The respondents were presented with a series of statements and asked if they agreed or not.

Products: The data used to decide products sold and product listings comes from a mix of marketplace and own sources both questions scoring over 4 on the agreement scale. Using data to enhance product listings scored 3.7. Product listings 15% of respondents disagreed with this statement. All other questions, referring to identifying errors with listings, examining search ranking and examining success of product listings, were scored between 3.2 and 3.4.

Figure 50: Marketing Decisions - Products

Question	These statements refer to the products you sell and product listings: Please indicate the extent to which you agree or disagree with the statements that are applicable to your organization
Key Figures	The data used to decide products sold and product listings comes from a mix of marketplace and own sources both questions scoring over 4 on the agreement scale. Using data to enhance product listings scored 3.7 product listings 15% of respondents disagreed with this statement. All other questions were scored between 3.2 and 3.4
Key Take-away points	The data shows that data is used from a mixture of sources to decide what to sell and how-to setup the product listing in the best way to maximize sales. The data also shows that some sellers do not use data to further enhance their listings.
Responses	 *Figure shows weighted score for the question.*

Price: 75% of respondents said that they agreed with the statement, that they used their own plus marketplace data to make decisions about pricing. Statements referring to using data to track profitability and set margins / markup scored low with 3.3 and 3.4 respectively. 20-25% of respondents scored this neutrally. This is most likely meaning that they did not consider it. Agreement for all the other statements was high, hitting a score of 3.8 or more.

Figure 51: Marketing Decisions - Price

Question	These statements refer to the pricing and pricing decisions: Please indicate the extent to which you agree or disagree with the statements that are applicable to your organization.
Key Figures	75% of respondents said that they agreed with the statement that they used their own + marketplace data to make decisions. Statements referring to using data to track profitability and set margins / markup with 20-25% of respondents having a neutral response. Agreement for all the other statements was high, hitting a score of 3.8 or more.
Key Take-away points	Again, the point of using a mixture of own data and data from the marketplace is shown in the data with this question scoring 4
Responses	

Figure shows weighted score for the question.

Promotion: The scores in this category show that the respondents do not feel high degrees of pressure to participate in promotions, nor do they consider promotions to be large parts of their business model. The statement referring to pressure used the two examples of black Friday and cyber Monday as key events, the score of 2.6 shows that on the whole respondents did not feel pressure to participate in these types of events, however, 40.3% of respondents did feel pressure. Additionally, on the question that asked "promotions are a key part of my business" only 20% of respondent agreed with this statement scoring 2.9, 80% of respondents do not consider promotions / discounts and offers to be a key part of their business. Of this group 45% of them said they did feel pressure to participate in key events (17 of 37). This suggests that the key promotion events have sellers reluctantly participating in a minority. A follow-up could be to dive into this area further, for example, do sellers see sales fall if they do not participate, or do they fear it without evidence etc. Media sources such as Berthene, (2019) quoting studies by Bloooberg, (2019) suggesting that Amazon encourage sellers to raise process on other sites to compensate for lower process on Amazon and Tiffany, (2019) suggesting that Etsy are forcing sellers to offer free shipping, so often

suggest that sellers succumb to pressure from the online marketplace platforms with their pricing decisions. The findings in this study suggests that there may not be much foundation to marketplace influence on the whole population but may have negative influence over a minority group of sellers.

Figure 52: Marketing Decisions - Promotion

Question	These statements refer to promotions / offers / discounts and purchase incentives: Please indicate the extent to which you agree or disagree with the statements that are applicable to your organization.
Key Figures	Respondents did not feel strongly that they lost money on promotions scoring 2.6. 59.7% of respondents said they did not feel pressure to participate in key sales events 2.9. But 40.3% did feel pressure. Almost half, 45% of these respondents said promotions were not a large part of their business. 80% of respondents said promotions were not a large part of their business scoring 2.9. 68% of respondents did not feel restricted on the promotions they could run. Scoring 2.9.
Key Take-away points	Sellers do not, on the whole, feel pressure or feel restricted by what deals they are able to run, they also said that they do not lose money to remain competitive. This is contrary to what media sources say about selling on online marketplaces applying pressure to sellers.
Responses	*Figure shows weighted score for the question.*

Place: one of the findings in the seller forum was that when discussing the inventory subject, the word "damage" was a high frequency discussion. As such, a question was added to explore if this was an issue linked to pricing or other marketing decisions. The statement referring to damage being a concern was scored low at 3.1 with 38% in agreement. Of those who agreed with damage being a concern, 72% had

inventory being fulfilled by the marketplace provider. Inventory placement seems to be a worry amongst the respondents, 65% of the group with a disagree or neutral response to the statement "I do not worry about inventory placement", meaning that the data is leaning towards being worried about placement. Half of the respondents (49%), agreed that they could use data from the marketplace to aid in inventory placement and 40% agreed that they could use the data from the marketplace to know where their customers are geographically. This suggests that the data provided by the marketplace may be either lacking or difficult to interpret in order to make clear decisions about inventory placement.

The next theme of this section was that on the whole, the respondents said that they did not make profits on delivery charges (2.6) or lose money on delivery charges (2.9) this means that although inventory placement is a worry this may not be because delivery charges are impacted or profitability is impacted by a loss. Delivery charges would be impacted if the inventory placement was such that the inventory was far away from the end-customer and costing the seller maximum fees to ship their orders. It is worth exploring why placement would be a worry is it due to having to send inventory to multiple warehouses causing cost at the first stage of the business to customer supply chain.

Figure 53: Marketing Decisions - Place / Inventory Placement

Question	These statements refer to your inventory placement and deliveries
Key Figures	The statements concerning making profit or losses on delivery charges were low scorers at 2.6 and 2.9. The statement referring to inventory damage being a concern was low scoring at 3.1 with the majority of responses being neutral or disagreeing. The statement "I do not worry about inventory placement" was scored low 3.1, 64% of respondents with a 'disagree' or neutral response.
Key Take-away points	Sellers on the whole do not make profits on delivery charges, nor do they lose money. Inventory damage is not as great concern amongst the respondents as the seller forum data suggests with 62% of respondents either disagreeing or giving a neutral response to the statement.
Responses	*Figure shows weighted score for the question.*

Customers and Customer Satisfaction: One of the lowest scoring questions in the customer satisfaction section was the statement "Customer satisfaction is within my ability to influence", scoring a 2.2. 70% of respondents disagreeing and 22% had a neutral response, only 8% agreed. The statements referring to being able to handle customer comments also scored a low 2.6, with the majority 85% not agreeing with the statement. 70% of the respondents also felt that they could not set their own returns and refunds policy. Customer satisfaction is clearly an element were sellers feel that it is out of their control, this may be because they lack direct contact with their customer, via an in-house customer contact center, due to their reliance on the marketplace mechanism for handling customer contacts and often 100% on behalf of the seller. On the inverse, the statement "Customer satisfaction is in the hands of the online marketplace provider. I have little influence over this" 96% of the respondents agreed or had a neutral response to this question, only 4% disagreed.

The two statements referring to the customer perception of the seller also had a clear outcome. The question about customers knowing that they are buying from a seller and not buying from the marketplace directly scored 3.5 with 87% agreeing or having a neutral response (53% agree and 34% neutral). The inverse question that inferred the customers thought that they were buying from the marketplace has a very similar weighting. The sellers have the perception that customers have brand awareness and when buying from a seller, that customers know that they are not buying directly from the marketplace seller. This finding may contradict the findings seen in the literature where customers use feedback and ratings to weigh up risk, when buying from a seller rather than the sellers brand when buying from marketplaces. This may be different when selling on different websites due to how the brand is displayed in the website listings. Some examples of how seller brands are displayed can be seen in Appendix 10.

The other customer related questions that were low scoring were "I am able to reward customer loyalty" with only 26% of the respondents agreeing to this statement. This could be because the seller does not have any direct connection with the customer on some marketplaces. It may be worth exploring if the UKs GDPR (general data protection regulations) prevent the customer's contact details from being passed, on or if the customer marketing preferences prevent the seller from contacting the sellers. There may be other blockers to enticing repeat purchases. Traditional approaches to repeat purchases are in many cases not available, such as; promotional codes and loyalty points, on marketplaces these are not able to be applied to specific sellers' products. Sellers may be limited to promotion or pricing strategies to entice repeat custom.

Figure 54: Marketing Decisions - Customer Satisfaction

Question	These statements refer to your customers / customer satisfaction/ customer loyalty: Please indicate the extent to which you agree or disagree with the statements that are applicable to your organization.
Key Figures	"Customer satisfaction is within my ability to influence" was the lowest scoring responses with a score of 2.2 Handing customer comments was also low scoring at 2.6 The statement that suggests customers have brand awareness coupled with the statement on the inverse shows that sellers believe that their customers are brand aware and do not believe that they are buying from the online marketplace.
Key Take-away points	
Responses	

Figure shows weighted score for the question.

Overall Marketplace Data Statement Questions: The questions in section 4 were all asked with the same prefix – "I am able to use the marketplace data to…" each of the elements of product, price, place promotion and consumer related topics were explored. When analyzed as a collective set of questions the overall agreement rate was assessed, to determine which category of data was the most reliable in supporting marketing decisions and which were not, the results are seen in figure 55. The results clearly show that the most reliable data provided by the marketplace is used for product and pricing decisions with agreement rates almost 70%. Promotion and place data had agreement scores which are slightly below 60%, suggesting that the data is less reliable for making place and promotion decisions. Customer related data is distinctly less reliable for making customer related decisions with a 41% agreement rate and a 59% disagree or neutral rate of response. This suggests that customer related data is either lacking or not existent for making marketing decisions. This is a key data point for making marketing decisions and may be

one of the reasons why sellers said that they used their own data to supplement the marketplace data. It is a very important issue that will be explored in the interview part of the research.

Figure 55: Overall Agreement Scores for Marketplace Data Statements

Question	I am able to use the marketplace data to….
Key Figures	Data provided by the marketplace seems to be most useful with pricing and product decisions, both having the highest level of agreement associated with the responses. Place and Promotion questions have similar agreement levels and a 30% neutral response rate Customer related questions have the highest level of disagreement and also the highest neutral response rate.
Key Take-away points	The customer data is either lacking or not useful when making decisions about customers and customer satisfaction. Decisions about products and prices are supported by marketplace data with the majority of the responses being in agreement.
Responses	

I am able to use the Marketplace data to....

	Product	Price	Place	Promotion	Customer
Average of Agree%	66%	68%	58%	57%	41%
Average of Disagree%	10%	11%	13%	13%	29%
Average of Neutral%	24%	20%	29%	30%	30%

5.2 Key Takeaways from Stage one and Considerations for the next phase of the research

There were a number of key points from the questionnaire results that are worth taking forward and exploring in the semi-structured interview stage of the research. These are outlined in table 27 below, they have been split out into five main categories.

Table 27: Key Considerations for the Next Phase of the Research

| Theme	Details	Category
Small employee headcount	Does this mean they have to be more innovative / frugal with resources?	Small headcount
Turnover was higher in those companies with more tenure	In the survey those who has sold for longer has higher average turnover, why do they think this is?	Cause of higher turnover in higher tenure companies
Marketing strategy set a board / director level	Marketing strategy is set at board/director level or "myself" is this true or do they have dedicated marketing functions or multi skilled employees who deal with marketing as a responsibility?	Marketing strategy decisions
Academic vs Informal marketing models.	Academic marketing models are not used, the most recognized one was the marketing Mix (5 Ps) but internal models are used.	Informal vs Formal marketing strategy

Theme	Details	Category
	What internal models are uses? Data showed that no formal marketing plans existed but informal ones did. What do informal plans look like?	
Seller Academic Qualifications	Do sellers have a degree and if so has having a degree helped them?	Informal vs Formal marketing strategy
Seller Marketing and Data analysis skills	Do sellers have the skills in their organization to do the analysis with such small teams? Do they look for multi skilled employees?	Data Analysis Skills
Market Research	Most research data taken from the marketplace itself and used in conjunction with own data, what does this look like?	Data Analysis
Marketplace data services or External / own data	Is the data available on the marketplace suitable / fit for purpose? Why do they go elsewhere for data? Is internal data more convenient?	Data Analysis
Marketplace Data Services	Do the marketplaces have good sources of data, what do these look like and do they include more data than your own sales? For example, market / product trends / or data that you can use to optimize listings etc.?	Data Analysis
Data Accuracy	Perception that is data is not accurate in the area of customer data and is prevalent in younger sellers' opinions. Is this accurate?	Data Analysis
Data Use	Questionnaire data shows that data is usable but customer data is less used, is this because it is not accessible? Or is it limited due to data protection (GDPR).	Data Analysis
Data Use	If customer data is not available or less accurate how do they overcome it?	Data Analysis
Data Use	Forum members said there was no easy way to extract data to give to their accountants and this was a source of frustration.	Data Analysis
Promotion not a key part of their marketing strategy	Data shows that promotions are not a big part of the sellers' business. Is this accurate? Is the strategy price stability in this case? Do sellers' items still sell well during event weeks like Black Friday if they do not participate?	Marketing
Pricing	Seller forums said that price competition was prevalent, how true is this?	Price
Gaining the buy-button	Forum members discussed strategies about gaining the buy-button, some positive and some negative (mostly saying they are forced to lower price, offer premium / free delivery or pay for sponsorship). What is their experience of this competitive behavior?	Competition
Profitability	Forum posts suggested that sellers were concerned over other sellers or the marketplace selling items for a loss and they could not compete. Have sellers experienced this?	Competition
Control over customer satisfaction	Data shows that sellers do not feel that they are in control when it comes to customer comments. Is customer satisfaction in someone else's hands?	Customer Satisfaction
Customer data	Forum members said that they were frustrated about incorrect customer comments / ratings and appeals process was long. Is this true?	Customer Satisfaction
Customer photos / feedback	Forum members said customer photos had the potential to aid or hurt sales but showed frustration when these could not be appealed. What is the seller's experience of this?	Customer Satisfaction
Customer services not in the hands of the seller	Handling customer complaints are outside the control of the seller – forum posts showed sellers were often frustrated with decisions – what is the sellers experience?	Customer services
Damage	Half of respondents say they worry about damage. The seller forum data also shows this trend. Is this a significant customer complaint? Is it more prevalent with marketplace fulfilment or is this a concern with the parcel carrier?	Customer Satisfaction

Theme	Details	Category
Sellers feeling pressure from the marketplace.	Do sellers feel pressure to participate in promotions and or marketplace schemes such as free shipping, key events and/or customer membership schemes / benefits such as Amazon Prime?	Marketplace Power
Seller Risk 'All eggs in one basket'	Do sellers who have 100% of their business on the marketplaces worry about changes to fees etc.	Marketplace Power
Advance warning	Forum member said they didn't get advance warning of many things such as promotional events and fee changes in particular.	Marketplace Power
Fees	Sellers on the forum were concerned about seller fees and profitability around excessive fees.	Marketplace Fees
Own store behavior	Do actions on the marketplace dictate own store behavior i.e. if you lower process on marketplace to be competitive do you have to lower them on own website?	Own store/website
Social media marketing Social media influencer marketing (product endorsement)	Do sellers use these newer more innovative marketing methods?	Marketing Innovation

Source: The Researcher

These key themes are summarized and can be seen in Figure 56. The themes have been categorized as themes that are core, themes seen in the literature, themes seen on the forum data, themes seen on the questionnaire results and finally emerging themes that have roots in multiple data points or have become apparent as more data / literature has been collected. These themes have been built up using the data from the aforementioned sources and using the researcher's judgement to construct the summary shown in figure 56. The themes shown in figure 56 were further refined at the next stage of the research in order to determine whether the themes are relevant and can be used to construct the eventual academic model / framework which is the expected outcome of this research. It is expected that the themes deemed to be relevant will form the foundational components of the academic model as an output.

Figure 56: Summary of Key Themes at this Stage of the Research
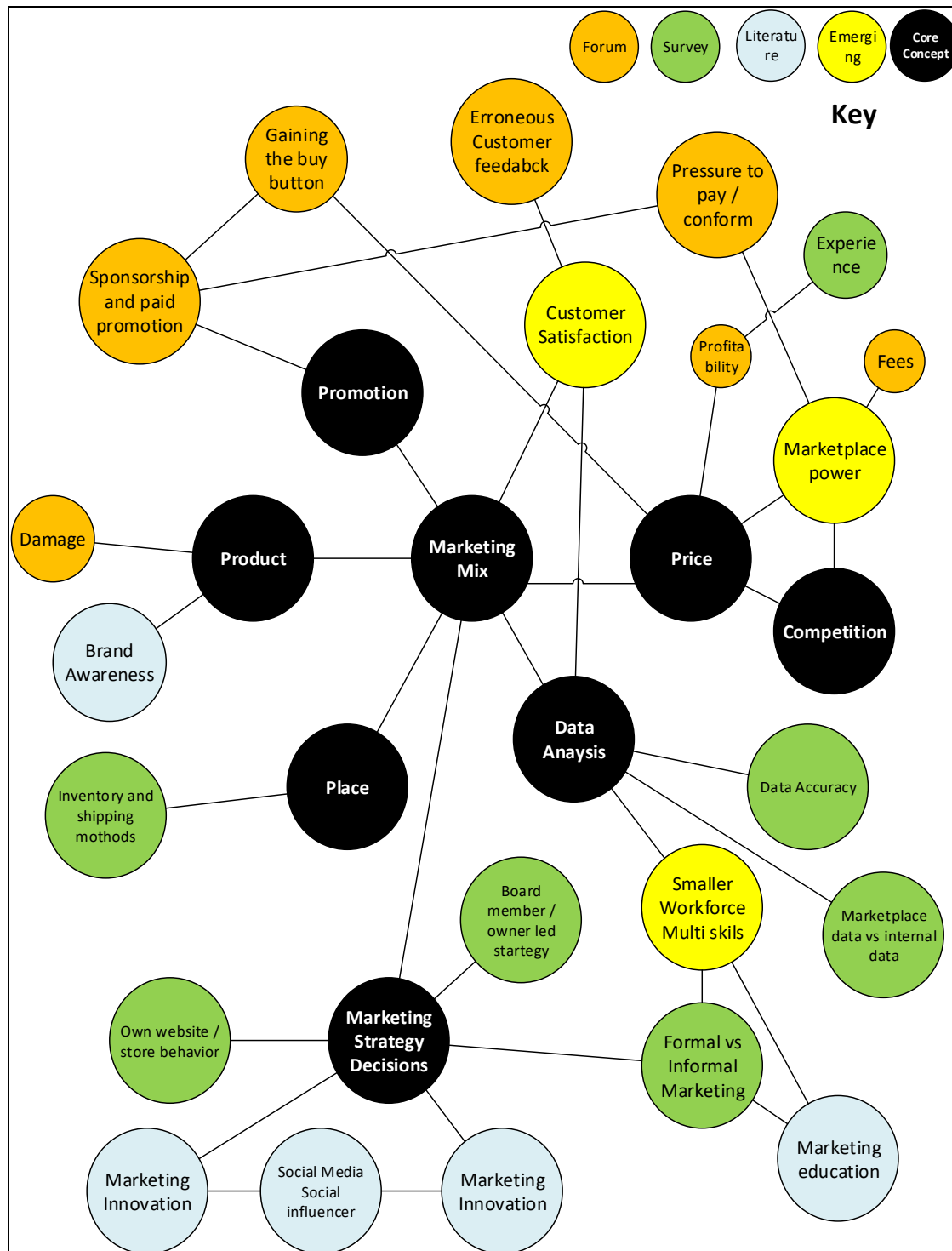
Source: The Researcher (Please note: The size of the circle is not representative of its significance).

These themes and concepts formed the foundation of the next part of the data collection, which is the semi-structured interview stage. The themes seen above formed the basis of the questions that were constructed for the interviews. The interviews gave a deeper insight into these concepts and allowed the formation of a model to emerge from the data, based on the experience of the marketplace seller community.

5.3 Stage Two: Semi Structured Interviews

This section will focus on the detailed analysis and results of the semi structured interviews conducted in-person. The analysis was conducted using the qualitative data collected from the interviews. The chapter will firstly outline the company profiles of the five companies that participated in the follow-up semi-structured interviews. Then, an outline of the results from the interviews will be presented, with triangulation exercise performed, linking all the results from the forum data, the questionnaire, the interviews and the literature together. Finally, the themes emerging from all the findings will be outlined.

5.4 Interview Questions

The question for the semi structured interviews were composed of six sections. These sections were formulated based on the key themes outlined in the previous chapter. These are summarized below:

1. **Company profile questions**: size of the company, age, turnover and product categories sold etc.
2. **General marketing strategy questions**: questions about marketing strategy and decision making, decision makers, marketing models used, formal or informal strategy, marketing success factors.
3. **Marketing Mix and decision questions**: Questions on product, price, promotion, inventory and customer satisfaction. Open question about 'gaining the buy-button' is also included.
4. **Data and information questions**: questions considering data, what it is used for, reporting, data accuracy, sources of data, and who conducts the analysis and what skills do they have.
5. **Customer Services / data / satisfaction questions**: questions about customer data, ability to influence customer satisfaction, questions about customer ratings and customer feedback.
6. **Marketplace Power / Marketplace error questions**: questions about marketplace power, tactics that impact the seller, questions about pressure from the marketplace. This section includes an open-ended question about marketplace power and the seller experience of it.

5.5 The Participants

Below is a summary of each participant company, which provides insight into the size of the company sales, number of employees, products sold, approach to big data research and their method of inventory storage and fulfilment. Three participants, company A B and C were part of the questionnaire stage of the research and volunteered to participate in phase in the interview phase. Company D and E were found in an online seller forum, they both responded to an announcement posted in March 2021 requesting volunteer sellers to participate in academic research. To protect each participants privacy and anonymity each participant has been designated a letter of the alphabet from A to E and will be referred to by their designation throughout this thesis. All interview data was transcribed and shared with each participant. They each verified (via email) that this was an accurate representation of their inputs and views. This verification was done to remove any misinterpretation and bias from the researcher. An anonymized example of this acknowledgement can be seen in Appendix 12.

5.5.1 Company A

Company A is a company selling own label products that are linked to baby showers and baby themed parties. The product portfolio consists of toys, gifts, stationery / decorations and other products linked to baby themed parties. The products are designed by the company and are bespoke to and sold exclusively by this company. Products are sourced and manufactured in China. 100% of sales are online (95% Amazon, 5% eBay) and the company turnover is just short of £100K. The company has been selling on online marketplaces for 5 years as of January 2021 and has less than 50 employees. 100% of the companies' inventory is held by and customer orders fulfilled by the marketplace provider. Company A uses a 3rd party product called JungleScout for their big data / market research.

5.5.2 Company B

Company B is a company selling own label baby gifts. The product portfolio consists of toys, baby clothing, gift baskets and gift bundles amongst other baby gift items. The products are designed by the company and are bespoke to and sold exclusively by this company, however, some bundles contain branded products from other companies. 100% of sales are online (100% Amazon) and the company turnover is over £2Million. The company has been selling on online marketplaces for 4 years as of January 2021 and has less than 10 employees. 90% of the companies' inventory is held by and customer orders fulfilled by the marketplace provider and 10% is held at their own premises and fulfilled by themselves. Company B uses Helium10 for their big data / market research.

5.5.3 Company C

Company C is a company selling bespoke products predominantly in the grocery category relating to environmental sustainability. The product portfolio consists of bio-degradable, plastic free and non-bleached grocery items such as tea bags and coffee filters, as well as some products sold in the toys and office supplies categories that are bio-degradable, plastic free and sustainable. The products are designed by the company, manufactured in China and are bespoke to and sold exclusively by this company. 100% of sales are online (Amazon approx. 45%, eBay 25%, 30% spread across Etsy and B2B sales) and the company turnover is over £400k. The company has been selling on online marketplaces for 5 years as of January 2021 and has less than 10 employees. 50% of the companies' inventory is held by and customer orders fulfilled by the marketplace provider and 50% is held at their own premises and fulfilled by themselves. Company C also sells products offline B2B to small companies wishing to use sustainable products i.e. café chains buy the plastic free tea bags and coffee filters. Company C uses Helium10 for their big data / market research.

5.5.4 Participant D

Company D is a company selling products in the home and kitchen product category. The product portfolio consists of kitchen and cooking accessories, living room and bedroom soft accessories such as cushions, bed linen and gifts for the home amongst other small home and kitchen accessories. The products are designed

by the company and are bespoke to and sold exclusively by this company. The product design is sent to a Chinese manufacturer and shipped directly to the marketplaces warehouse. 100% of sales are online (100% Amazon) and the company turnover is over £1.5 Million. The company has been selling on online marketplaces for 6 years as of March 2021 and has 5 employees. 100% of the companies' inventory is held by and customer orders fulfilled by the marketplace provider. None of their inventory is held at their own premises. Company E uses Helium10 for their big data / market research.

Theoretical saturation point: After interviewing Company D the researcher felt that theoretical saturation had occurred as no new themes or data points emerged from the interview. However, as a test, a fifth interview was sought to make sure saturation had occurred.

5.5.5 Participant E

Company E is a company selling high volume collectable products that are new or can be second hand in the collectables category. The products relate to gaming and Japanese collectable branded products such as Pokémon and Anime. The product portfolio consists of collectable toys, trading cards, clothing and other collectables, new products are sourced at volume from wholesale outlets and secondhand products are sourced in local outlets and online trading. 100% of sales are online (Amazon approx. 60%, eBay 40%) and the company turnover is over £100k. The company has been selling on online marketplaces for 3 years as of March 2021 and has only 1 employee as well as the owner. 60% of the companies' inventory is held by and customer orders fulfilled by the marketplace provider and 40% is held at their own premises and fulfilled by themselves. Company D uses Helium10 for their big data / market research to source new products, secondhand products are sourced on an 'ad hoc' basis.

Theoretical saturation test: Company E was sought out as their business model was different to the other four participants, with them selling second hand collectables and having a mixture of marketplace outlets and shipping modes. Despite this company having a different business model, no new themes emerged from this interview, thus proving that theoretical saturation had occurred.

5.6 Theoretical Saturation / Data saturation

As discussed above after data had been collected from four participants, it appeared that no new data or new themes had emerged from the fourth interview. as discussed in Grady (1998) "*when the researcher begins to hear the same comments again and again, data saturation is being reached*" (Grady, 1998, p. 26) it appeared after interview four that this saturation had been reached. As a test to make sure this was the case, a fifth participant was sought. Participant E was sought because they were a company with a completely different operating business model to the other four companies. They specialized in resale of second-hand collectables and had the differing position to product innovation and branding than the other participant companies had. After interview five it was determined as no new data or themes emerged from the fifth participant, that theoretical saturation had occurred and data collection ceased so that the final analysis could take place.

5.7 Interview Results: Thematic Analysis

Data obtained from the semi-structured interviews was analyzed using an inductive thematic analysis. The approach taken to this analysis was outlined in chapter 4.5.2. The chosen approach was taken from Thomas (2016). This approach used five stages of inductive theory building as opposed to the approach outlined in the nine-stage grounded theory framework proposed by Glaser & Strauss (1968). This kept the analysis more succinct than it would have been using the nine-stage method.

1. **Category label**: a word or short phrase used to refer to the category, the labels should have meaning.
2. **Category description**: a description of the meaning of the category, which outlines the key characteristics.
3. **Text or data associated with the category**: examples of text coded into the category fully represent the characteristics of the category.
4. **Links**: each category may have links or relationships with other categories.
5. **The type of model in which the category is embedded**: the category system may be subsequently incorporated in a model, theory, or framework.

The participant responses to questions were transcribed and the text uploaded to Nvivo. The transcribed interviews were examined and text was arranged into categories that emerged from the data. These categories are known as 'nodes' in the Nvivo software. These categories were then grouped into themes and links drawn between these themes. These can be seen below in figure 57.

There were several key themes that emerged from the qualitative data. The seven themes are summarized in the following section.

5.8 Emerging Themes

Several themes emerged from the data and were Arranged into categories, these categories are summarized below:

Figure 57:Summary of Categories Emerging from Inductive Analysis

	Category	Category Description	Links
1	**Small Business with Access to large Scale**	Small businesses and startups have immediate access to a large volume of customers and access to a very large market for very little investment.	Formalized Marketing Plans.
2	**Marketing Mix**	Product, Price, Place, Promotion and People	Big Data, Customer, search optimization.
3	**Big Data**	Big Data services used on and off the marketplace for decision making.	Marketing Mix.
4	**Formal vs Informal Marketing Plans and Strategy**	Marketing plans are formal and proactive or informal and more reactive.	Marketing Mix, Big Data, Customer & search optimization.
5	**Customer Access and Customer Reviews & Feedback**	Direct access to the customer is restricted and direct marketing is not an option. Enticing the customer is restricted to a small number of strategies.	Search Ranking Optimization.
6	**Search Ranking Optimization**	Keyword search optimization is the main strategy for gaining sales.	Customer access.
7	**Marketplace Control and influence**	Marketplace influence to participate in schemes or gain accreditation. Any evidence of dominance.	Marketplace and seller relationship / interaction.

Source: The Researcher's analysis using framework derived by Thomas (2016)

The following sections will provide an overview of each of the identified categories, what the themes of each category were, along with the data in the form of quotes. The data / quotes will serve as evidence of each theme.

5.8.1 Theme One: Small Business with Access to large Scale

One of the main themes that was discussed by all participant sellers, which was not asked about, as a direct question, was their direct access to a large-scale customer base for minimal effort and investment. All sellers discussed this as their reason for conducting their business using an online marketplace. The setup costs are minimal i.e. there is only a need to invest in products and some small setup fees to launch most businesses. The marketplace gives instant access to a massive local or international market (depending on the seller's choices). The marketplace also provides inventory storage, customer services and shipment services for a fee. This means the seller need not handle their product, or even see it before it is sold.

"You can always sell off Amazon but even if I were to set up a business from a shop, I do not see sales being more than 20% of what I can get on Amazon because although you do not have all the customer access, they give you the scale and all those channels to market and they make it so easy for you. As a small business they have allowed me to start a business from my kitchen and develop it from an initial small investment to what it is now. It gives you the ability to produce a product and get it to market easily and then expanding to Europe is really easy. I can now sell in the UK, US and 26 EU

countries and directly advertise in all Europe's websites and that has allowed me to expand my business at a rate and speed that I could never have done on my own using my own website. If I were to do it on my own website I would have to invest an enormous amount of money to drive people to the site and the competition is massive. I wouldn't get anywhere near the return that I get on Amazon. Amazon gives people confidence to buy a product and makes the customer feel safe in buying, because they know if they do not like it, they can send it back and you do not get that with own websites. People know they will not be scammed on Amazon; however, I do not think they do enough to tackle counterfeit products but I know that's a constant battle.   It's their playground and you have to play by their rules but there is no one else who has a playground who can bring me the scale of business like theirs does." (Company A)

"Amazon is the best thing in the last 10 years for small businesses. They give you access to global markets then they try to make it easy for you. If you have the right product you can be successful but its hard work, it's not a get rich quick scheme." (Company C)

This theme raises questions about the academic models presented in the literature, particularly in the traditional marketing section. Market entry and market penetration are components of a number of popular marketing models such as Ansoff's matrix and the Boston consulting group model. It also forms part of models discussed in the Big Data Marketing literature. The model proposed by Nouri & Ahmady (2018) for example, has market entry and market growth as strands that are key components but these are beyond the control of the sellers on the marketplace. Growth of the marketplace can be sensitive to external factors such as the COVID-19 lockdown which had significant impact on the online sales during 2020 and 2021.

5.8.2 Theme Two: Marketing Mix

The largest themes overall came from topics discussed that can be grouped into the marketing mix group of topics. Below the 5 Ps of the marketing mix will be discussed in turn, to outline the main concepts that emerged from the data.

5.8.2.1 Product

Each seller was asked about their product portfolio, their strategy and their marketing approach to products. Each seller discussed their decision process to sell a certain product, including the techniques that they use to launch and ramp down a product.

Product selection and launch was discussed with all participants. Three of the five companies sold products that were unique to them so they did not share the "buy-button" but they did have competition. The sellers who sold items that were not unique to them sold branded products that shared the "buy-button" with direct competition including the marketplace itself. The sellers who sold unique items all used a product

selection strategy using market research to conduct analysis to see what sells and where a gap could exist that their product would fit into.

"We developed the portfolio by researching the niche and looking what was in the niche. We utilize software to find out what the sales figures were for certain products, how they were selling and the prices they were listed at on Amazon. We use helium10 and we used to use Jungle-Scout. This gives us the right information to research the niche – we look at the reviews and see how it sells, we maybe buy a product and see how we can make it our own. What we tend to do is trial products, we buy from wholesalers or retail, try to make it our own and then we would make it bespoke having our own product made for us in China, with a focus on getting the cost margin right to aim for the right profit margin" (Company A)

"I have a launch model where I set a budget to launch the product in order to get it ranked and when sales take over this helps stabilize the ranking, then we tend to pull back the marketing and rely on organic rankings." (Company B)

Competing for the "buy-button" was discussed by all participants. The common strategy for avoiding sharing the buy-button with other sellers was to differentiate their products from that of other sellers by placing their own brand onto the product. Two sellers did this by having their product manufactured with their brand logo or label on the packaging. Two sellers bundled other items together and applied their branding to the overwrapping and the final seller shared the buy-button for the majority of their products but aimed to source products that no other seller sold, in order to be as unique as they could and own the buy-button by default.

The product launch strategy was discussed by all participants. The strategy that 4 of the five discussed predominantly followed the sequence laid out below.

1. Using Helium10 or JungleScout, find a product that sells that can be made unique.
2. Source the product at a reasonable manufacture price in China.
3. Order samples.
4. Dropship the product directly to the marketplace warehouse from China.
5. Create a listing using the keywords that generate the highest ranking for similar products.
6. Use quality photos and an optimum listing in terms of descriptions and detail.
7. Use pay per click marketing to boost the items sales in the short term as items with no feedback may appear lower in ranking. If the product is highly ranked there is no need to add Pay Per Click (PPC) marketing.

8.   Adjust the product description / keywords on an ongoing basis to optimize the ranking.

This sequence was derived from the seller discussions and was surprisingly common, all the sellers gained this knowledge through experimentation, then all reaching the same conclusion.

5.8.2.2 Pricing

Participants indicated that pricing strategy tends to be a percentage markup strategy as all interviewed sellers said they would aim for a percentage profitability. Each seller used the tools that the marketplace provided to estimate their storage, shipment, listing and sales fees in order to allow them to price their product appropriately to hit a target profitability.

"We tend to aim for a markup once everything is costed. Different products have different margins because of the volumes, for example we sell teddies at large volumes so we can accept a smaller margin on it. I do not find the estimated costs to be unpredictable and it's all based on cube and commission which is quite predictable. You have to be clever with cube to save costs on storage fees. It's all there in black and white all you have to do is understand it." (Company B)

Fees although predictable can have an element of unpredictability and are estimated, for example the fee that is the most variable are the storage fees that the marketplace charge, which is a fee linked to the amount of space the items take up changed by length of time. If sellers have slow moving stock, then the fees that they will generate could cut into the profitability of the product.

"There are slow movers [Products] that incur longer term storage fees, if it gets to this point I tend to heavily discount to get rid of them. I will break even if I can but if I leave them there they will eat into my profitability" (Company E)

"Amazon's costs aren't very opaque. They estimate fees per unit sold. There are 3-4 fees that are all estimated and you can view this cost but estimating this for new products isn't exact." (Company B)

Some participant companies indicated that they allow for marketing costs in their profit margin calculations, however, some companies aimed to get their product seen organically without using marketing spend. Therefore, any added marketing would erode their margins.

"My ultimate aim is to reduce the amount over time that I'm spending on advertising by ensuring my products appears in the searches organically." (Company C)

One seller indicated that the company experimented with pricing to see if they lost customers and then adjusted if they did to gain them back.

> "*I did get a recommendation from my accountant to raise all my prices by 10% in order to improve my profitability and when I raised prices by 7.5% to test the water, I haven't lost any sales, so I'm sticking with it.*" (Company B)

Pricing strategy was different for products with high velocity, pricing for these items were left low to remain competitive and the keep the velocity high. Evidence was seen that the pricing strategies may have indirectly followed the approach from the BCG model. Using discounting and breakeven process to run down "dog" products, using low pricing to generate high velocity for stars and ensuring profit margins were on the "cash cows".

5.8.2.3 Place

All interviewed sellers sold in the UK Marketplace and 3 of 5 sellers use access that the online marketplace provides to sell into international markets

> "*Amazon let you sell in all their European or global locations and it is really easy to do if you want to*" (Company B)

All sellers indicated that they were not worried about risk to changes in the marketplace policy or fees despite any occurrence of fluctuation in fee structure, pricing or any changes to distribution and storage could significantly impact profitability and ultimately pricing.

> "*100% FBA. It is a potential risk if Amazon change their fees and they have put some people out of business when they did this before. I do not feel I'm exposed to it as much as others. I have no debt and I do not rely on it for my livelihood and I could shift left over stock on eBay if I had to*" (Company C)

Only a limited amount of stock was stored and fulfilled at the sellers' premises, this was discussed as being expensive and driving additional distribution costs. The marketplace could fulfil orders faster and cheaper than they could. There were also added pressure to ship fast in order to maintain "Prime" status.

> "*It's not perfect but, but it's pretty good. I wouldn't use any other service they have got it pretty nailed on with little downside*" (Company C)

Although all sellers indicated that they did not worry about putting all of their inventory in one place, some sellers indicated that as part of a growth strategy other third-party fulfilment providers were being explored as part of a growth strategy.

"It's not perfect but, but it's pretty good. I wouldn't use any other service they have got it pretty nailed on with little downside" (Company D)

The sellers relied on the marketplace to store and fulfil the majority of their orders but they did not worry about having 'all of their eggs in one basket'. The risks did not seem to manifest in their current experience. Any changes to fees or allocation of space in the warehouses could, however, impact their business.

5.8.2.4 Promotion

There were a number of different marketing tactics discussed by the sellers. These were; pay per click marketing or PPC, storefronts, sponsored products and brand campaigns. Each were discussed with mixed feelings on their effectiveness.

Pay per click PPC, was discussed as a good strategy for launching and for boosting sales of a product. PPC is when the seller pays for each click a sponsored link would generate. This click may or may not lead to a sale but does attract the customer to view the product listing. Some sellers said they used PPC campaigns as a standard and some said they try to avoid PPC and instead aim to have their products rank highly in the search results organically using keywords and ideal product descriptions.

"We are using predominantly pay per click marketing" (Company A)

"I do have good resources but the difficulty is understanding all the nuances of the pay per click strategies. These can suck a lot of time and effort in knowing what medium to use to drive the most return. At the moment I'm in my Amazon bubble and their pay per click" (Company C)

"I have also found that pay per click advertising for us is very expensive as we operate in a niche market which arouses initial curiosity with customers who do not always buy – low conversion. I try to get my products ranked highly without using PPC to generate it. I use keywords and good product descriptors to do it. Helium10 is also a good way to see what keywords work and what won't." (Company D)

For those who shared listings with other sellers or the marketplace, PPC could gain the "buy-button" as the campaign will link the product directly to their buy-button and not the one from other sellers. The customer, however, would see a message saying that the item may be cheaper from other sellers in a prominent position. This means, conversion from click to sale can be impacted especially if another seller has a lower price.

> "*PPC works for me as I compete for the buy-button with other sellers. However, sometimes they can gain your sale if the customer is savvy and sees that they have a lower price than you do. I monitor my competitor prices to make sure they do not benefit from my PPC campaign.*" (Company E)

Another was a seller storefront. Sellers discussed their branded store front and making sure it was optimum for driving sales from customers who were browsing or had already bought products from them.

Sponsored products were also discussed, these are more expensive campaigns and features the product in a banner above the search listings. According to the sellers interviewed, these campaigns are very expensive but have a higher click through rate than the PPC campaigns that rank the products higher in the search. Four of the five sellers interviewed said that they did not use sponsored products / banner campaigns as they were far too expensive.

> "*I have used banner advertising a few times, but it never yielded the benefits that I wanted, so I have stopped using them. They are very expensive and each time I have used them the money I invested wiped out my profits. I had to use price increases on other products that were selling well to recoup the losses.*" (Company D)

This type of campaign should be used when it can generate higher volumes of sales in order to offset the cost of running the campaigns. Therefore, a cost benefit analysis should be conducted before using the strategy.

And finally, two sellers discussed their brand campaigns that were experimented with. These are similar to banner advertising with products but instead of the product featuring in the banner, the brand does. These campaigns raise brand awareness but again are very expensive to run. They appear based on the customers search terms. Although they do not direct the customer to an individual product, they do direct them to the seller's store for browsing. The two sellers who had used this strategy both indicated that it was expensive and the benefits where were questionable.

"I have got a brand banner ad going on a pay per day that Amazon put that together for me. I quite like the brand one they put together, but it's not cheap. I do not know if it has benefit or not, whereas I can see the impact of PPC quite clearly" (Company B)

There are a number of different ways that sellers use marketing campaigns and brand awareness campaigns but this portfolio is limited to what the platform can offer. There is no scope for the seller to innovate or do any direct marketing to the customer. The marketing strategies are limited to strategies to build up the favorability of the search ranking of their product.

5.8.2.5 People

The customer element of this P is covered in the customer related theme in sub-chapter 6.4.5 later in this chapter.

The main theme on people was the theme concerning skilled employees. Each seller indicated they either had skills themselves or had dedicated people to deal with the data and analysis side of their business. Most mentioned that they had to have multi skilled employees.

"My wife is my numbers person, she has experience as a business manager for school and has ACT accounting qualification before she joined full time with the business." (Company A)

"Yes, managers are multi skilled including myself, we have to be given that data we have to understand and make decisions from" (Company D)

There was a mixture of educated and non-educated employees who were handling the data and doing analysis for the company. Therefore, for these participants, reliance on formal qualifications was not a factor, as employees and even family members fulfilled the duties of an analyst for the company without these formal qualifications. Only one participant had academic experience that involved analytics training.

5.8.3 Theme Three: Big Data

One of the most surprising themes that emerged was the use of big data by each company in order to develop its marketing strategy. It was expected that the big Marketplaces such as Amazon would have a substantial big data provision for its sellers to use, in order to focus their marketing activity. This was found not to be the case and in fact all companies interviewed used third-party big data sources to conduct their research and analysis. The most popular being a product called Helium10 and another called Jungle scout.

"Outside Amazon I use helium10 to monitor market share and competition and key word listing for optimization. Helium10 is now linked up with Alibaba so if u find a product you like to look of u can

directly connect with Alibaba to find a wholesaler for that product. This is $90 per month in the level

I'm on which is good value for money." (Company A)

"I use Jungle scout for research because what you get on Amazon is limited and data on where things

appear in search results is nonexistent. How well that product is selling that kind of data is on Jungle

scout." (Company B)

"I use Jungle scout (third-party subscription plugin product) some people use helium10 to research

products, it shows in the sales info for the previous months and revenue, shows me who's selling and

for how much. You can use jungle scout to narrow down your searches to any criteria to see how

competitive products are. I then would go away and try source a supplier, work with them on a design

and take it from there." (Company C)

Each company indicated that the data available to them on Amazon for example was limited, showing
general trend data such as volume, sales and marketing spend. Yield on spend was also available using a
metric known as pay per click (PPC).

"The data on amazon shows figures such as how many page views I've had, how many units were

ordered what the percentage of clicks turned into sales which is useful but some of it is a bit weak.

The advertising data is good you get nice graphs and this is where they would like you to be spending

your time and money on the advertising stuff." (Company C)

This use of a third-party to leverage big data raises the question as to why Amazon do not supply the sellers
with the big data that they can access using tools by these third parties. Helium10 claims to source its data
directly from an Amazon API and allows the user to do research using search terms and keywords. The tool
gives the user data on the number of products, its estimated profitability, the number of sponsored and
promoted products and gives each product a score to help the user identify what is attracting customers.
The tool allows the user to spot gaps in the market, allows them to research a product to see if it may sell
and allows them to optimize their own listings to encourage it to appear high in the search ranking. It was
expected that this provision would be made available as a tool by the marketplace to the seller but
evidence from this research suggests that this is not the case.

Amazon in recent years has come under pressure from governments about the seller data that it allegedly
uses to gain access to what sells and list the product themselves. A number of examples of this practice are
cited in the 2020 hearing in the US congress and in the questions, congress posed to Amazon CEO Jeff
Bezos. "[Question from Congress] *When and how did you first become aware of any incidents involving*
Amazon employees accessing marketplace seller data (a) to benefit themselves; and/or (2) in support of
Amazon Retail's business? Please describe the actions that Amazon has taken to respond to these incidents

since you first became aware Amazon employees were engaging in this type of conduct. [Response from Jeff Bezos] Amazon first learned about the alleged violations of Amazon's voluntarily adopted Seller Data Protection Policy recently reported in The Wall Street Journal from The Wall Street Journal" (US House of Representatives, 2020). Amazon may be using data to its advantage rather than to the advantage of their sellers, limiting them to their own data rather than giving them access to the aggregated data that they enjoy the benefit from themselves.

5.8.4 Theme Four: Formal vs Informal Marketing Plans and Strategy

Four of the five companies interviewed stated that they did not have any formalized marketing plans / strategies. It was expected to find some companies without formalized plans as the survey data showed that 52% of companies did not have formal plans. The four who said they did not have any formal plans all indicated that they have tactics that they use for each product and that they have different approaches for product launch and ramp down rather than an overall marketing strategy.

Examples of informal strategies:

"My strategy now is to bundle products to generate sales. But I do not use anything as formal as the Boston consulting matrix or 5Ps" (Company B)

"[Marketing Strategy…] Not formal and product led" (Company C)

"I have a formula per product, when I see sales dip I add some pay per click marketing to boost sales, if this doesn't work I take a look at the nearest competition to try work out why they are gaining the sale and adapt my listing. For stale products I tend to run them at a promotional price to break even and get rid of the stock" (Company E).

An example of the company that did use formal strategies.

"Using the 4Ps I looked at the product, the price and the promotion and that really changed how I advertised on Amazon. I did the Amazon courses and researched how to advertise properly and I have now refined this right down and then move towards generating a more organic way of generating sales. So, I have used the 5Ps in my plans." (Company A)

As only one of the five companies interviewed and 53% of the questionnaire respondents said that they did not use any formal marketing tools or have formal plans. It raises the question around entrepreneurship within small businesses and whether the entrepreneurs rely on instinct rather than academic or corporate tools to conduct their business. Decision making could be more trial and error rather than detailed planning and execution. The marketplace selling environment may be more conducive to this approach than selling in traditional markets.

5.8.5 Theme Five: Customer Access and Customer Reviews & Feedback

All participants indicated that they had no direct access to their customer and the marketplace had systems and people who handled all their customer contacts and customer services. Sellers had no access to be able to do any direct marketing. The only option for direct marketing was to insert marketing materials into their product. i.e. a discount code for their own website within the box of the product itself.

All participants said that they had experienced times where negative customer feedback and negative product reviews were not justified and they had to contest these with the marketplace, through a resolution procedure.

> "*You are constrained because you do not have access to the customer, but you have to weigh that up against the benefits that Amazon gives you*". (Company A)

> "*We also run a programme where we put an insert in each order encouraging customers to use our own website rather than eBay and Amazon and this has been very successful in reducing third-party costs.*" (Company B)

> "*There are a couple of ways a customer can get in touch with me to tell me that they haven't had their package and for invoice requests that come from the website directly to the seller, but I do not have any access to contact them directly or know who they are or when / where their order went*" (Company E)

This is a unique customer and seller relationship, one that the customer is anonymous to the seller and direct marketing is not an option. In this situation the seller relies on the algorithms for the marketplace to gain access to the customer, so it becomes more about how they achieve the highest search ranking to gain a sale rather than what happens in the external environment, where the objective is to get a marketing message to a potential customer and direct them to purchase from the seller. All of the sellers interviewed indicated that optimization of their position in the search results, using key words was the key to gaining the sale. Other tactics, such as; optimization of product listings, quality product pictures and videos as well as customer quality reviews, to convert a customer from viewer to buyer are used to secure a sale. Marketing in this situation is no longer about attracting a customer to your sales outlet but it is more about standing out from the crowd for a customer that is already browsing for that product.

Positive customer reviews and positive customer pictures are success factors in high search rankings and in converting the customers who are viewing listings into buyers. Positive seller reviews are also a positive influence on converting browsing customers to buyers. However, these are factors that are icing on the cake when it comes to buying as other factors affecting the search results such as the "prime" badge on Amazon and speedy shipments are more influential on purchase decisions.

Sellers need to come up with more innovative ways to access their customers to target messaging in order to fight through the crowd.

5.8.6 Theme Six: Search Ranking Optimization and Competition

As mentioned above the marketing strategy that all of the participants discussed was the strategy to get their product to the top of the search result, when customers search for key words. Sellers also use this key word searching / optimization to do market research using third-party applications, such as Helium10 and JungleScout. These applications show sales rankings and search positions of products that use the same keywords on their descriptions. The sellers can they see what works and what does not work on product descriptions.

"I try to appear higher in the search ranking. I always aim to feature in the top five or at least on the first page or you will not get any customers. I compete across multiple search terms and aim for high raking in these and it's very much linked to the title and short descriptions, these are key to getting the search ranking right." (Company C)

"My ultimate aim is to reduce the amount over time that I'm spending on advertising by ensuring my products appear in the searches" (Company B)

"I spend my money on PPC [Pay Per Click] advertising to make sure my product gets to the top of the search listing. Ideally my product would get there organically and I wouldn't need to spend the money. I aim to get the list to the right position without spending the marketing money". (Company E)

Search ranking and standing out from the crowd is the go-to strategy for each product for the sellers interviewed. The word "rank" is also mentioned 125 times or in 10% of the seller forum posts used for the pilot study. Indicating that advice from other sellers was to optimize search rankings to 10% of questions asked.

All of the sellers interviewed said that they did not use social media to market or promote their products or direct customers to their listings. They only used the ways internal to the marketplace of generating visits to their product's pages. The rise of using social media influence and influencers was not present within this population. All participants interviewed said that it was an area of opportunity to direct customers to their pages.

"Not enough social media, we haven't had the time to put into that at the moment. We are looking into the social media side of things; Instagram I would like to use more videos on our products and we can promote them on Instagram" (Company A)

"…My marketing background is in digital marketing, and back when influencers were becoming more popular, I did see value in using them for brand promotion but not useful for products like mine. Due to the amount of time I would need to invest in that relationship and I would get more return for my time in other ways." (Company C)

In the literature; Johnson, (2014) found that 70% of consumers only select products that appear on the first page of the search results, 20% on second page and less than 10% would go as far as the fourth page. This search optimization strategy is the key to winning the order above all other strategies and tactics. Even if the listing is perfect if it does not appear high in the rankings, no customers will see it.

5.8.7 Theme Seven Marketplace Control and Influence

The theme of market place control and influence came up frequently. The sellers all said they faced pressure in the form of emails and recommendations to purchase certain marketing products that the marketplace was offering. Some sellers also indicated that they were asked to become part of a seller program and all sellers said they felt indirect pressure to hold certain statuses such as a "prime" seller on Amazon, on the marketplace to remain competitive. The data shows that some of these seller programs had no measurable benefits and in one case the seller withdrew from the program due to the adverse way it impacted sales.

"On the negative side, we were convinced to join the Amazon Launchpad programme when we first started (new and innovative companies) and that cost 5% of turnover for very little benefit. We withdrew from that." (Company B)

"There is constant pressure from Amazon to engage in many different programmes which invariably are linked to turnover and can seriously affect cash flow. Emails and Invites to webinars" (Company D)

"About a year ago we made the mistake of signing up to Amazon Vendor and we lost contact with our B2B customers as Amazon were providing customer service. This meant they could vary our prices and discourage B2B customers from contacting us. When we realized this mistake we quickly withdrew from the programme." (Company C)

On the flip side the expectation that the pressure to participate in events such as "Black Friday" was not apparent in the interviews, which corroborates the findings of the questionnaire. The sellers all said that they do not feel pressure to participate in such events because they are expensive to heavily discount and they benefited from the increased foot fall during the events, without discounting.

"*I do not feel any pressure, anything I do is entirely voluntary and I do not feel pressure to get involved in deals like black Friday. However, the success of your product is entirely dependent on where your product appears in the rankings so you have to play by their game. We see increased sales from those type of events anyway, without discounting, due to the increased traffic to the website*" (Company C)

The pressure from the marketplace that is often discussed in the media and in in the hearing held in the US congress in 2020 does not appear to be apparent amongst the participants of this research. They indicated that they have full control over their decisions and pressure to participate in events and programs is entirely up to them. However, there should be caution when participating in seller programs linked to revenue as the sales needed to sustain and benefit from them may be more beneficial for the marketplace rather than the seller.

5.9 Triangulation

In order to remove researcher biases and generate a greater level of accuracy, reliability and credibility of the data, a triangulation exercise has been conducted to verify themes and categories and to eliminate any sample biases in the participant populations. *"Given basic principles of geometry, multiple viewpoints allow for greater accuracy. Similarly, organizational researchers can improve the accuracy of their judgments by collecting different kinds of data bearing on the same phenomenon"*. (Jick, 1979)*. To verify assertions made in the results, the triangulation of multiple methods is outlined in table 28 below:

Table 28: Triangulation of the Data in Relation to the Main Themes

	Category	Forum Data?	Survey Data	Interview Data	Literature
1	Small Business with Access to Large Scale	Not present	Sales turnover figures were higher on average for sellers with more experience. 67% of participants had less than 10 staff. Sales turnover was £200K+ for more than half of the participants 53%	Heavily featured. Sellers discussed the opportunity the marketplace scale posed vs selling traditionally. Size and scale of the market and the customer base was discussed by all sellers interviewed.	Nouri & Ahmady (2018) model has market entry and market growth as strands that are beyond the control of the seller. Ansoff (1957) matrix has market penetration strategy. Kotler & Keller (2019) promote the Boston Consulting Group Model (BCG) which has growth strategies that are applicable for sales growth but not marketplace growth. Marketplace

	Category	Forum Data?	Survey Data	Interview Data	Literature
					growth is an external factor.
2	Marketing Mix / Marketing Strategy Decisions	Discussions focused on products promotions. No data relating to marketing strategy found in the forum.	Marketing mix models used by 44% of respondents. Control over marketing strategy was scored highly 4.1 out of 5	No formal marketing tools used however the SWOT/PEST model was used and Marketing mix model sellers were familiar with.	Allred et al (2007), Lumpkin et al (2010) suggested that small businesses would have a more informal strategic approach. Mitzberg & Waters (1985) suggested small firms will have an entrepreneurial approach to strategy.
2.1	Marketing Mix Product	Discussions focused on how to optimize product listings, how to manage large volumes of product listings.	Marketplace data was primarily used for product and price research.	Sellers discussed how they source products by finding gaps in the market using market research. Finding what sells and if they can put their own stamp on it is the predominance product strategy.	Porters Generic strategies are applicable to marketplace selling as the model makes no assertions over the market Kim et al (2024) *proposed that* differentiation will show superior performance to cost leadership in e-business contexts.
2.2	Marketing Mix Price	Price competition was prevalent. Price was often used to gain the buy-button. Discussions about loss leading products was prevalent	Research on competitor pricing was done on the marketplace. Setting process and Tracking profitability were also highly scored.	Pricing strategy was mainly a percentage markup strategy factoring in estimated costs. Sellers heavily discounted to break even to avoid excessive storage fees. Examples of cash cows and star products were discussed.	Product lifecycle suggests that price and promotion strategy is linked to the products stage in its lifecycle.
2.3	Marketing Mix Place	Not Present	Sales were predominantly on Amazon 74% with eBay at 13% and others spread over the remaining 13% 64% of sales come from the online Marketplaces and	All of the sellers used the marketplace to fulfil orders and store inventory. All sellers sold into multiple countries using the marketplace network. Access to this kind of scale	Sun, et al's (2020) experiments showed that rewards could be positive by up to 35% by fulfilling customer orders from the Amazon warehouse and comparing the sales and

	Category	Forum Data?	Survey Data	Interview Data	Literature
			19% from own website. 73% of respondents used the marketplace to fulfil orders.	was discussed as a major benefit. Brexit was also discussed as a concern but the impacts were not yet known.	profitability from their past sales of the same items
2.4	Marketing Mix Promotion	One of the most discussed topics, sponsorship, pay per click marketing, branding and search ranking optimization were the main topics.	Data showed that promotion was not a key part of the marketing strategy. Data shows that discounting and promotions lost respondents money (60%).	Promotion was not a key part of the marketing strategy but it was a means to gain higher search rankings. The search rankings were the goal and tactics to achieve this varied. Data shows sellers want to get organic search results without spending money.	Product lifecycle suggests that price and promotion strategy is linked to the products stage in its lifecycle.
2.5	Branding	Frequently discussed in the forum data over a varied number of topics.	Survey data showed that sellers believed that the customers knew their brand, 87% agreeing that their customers knew they were buying from their brand.	Interview data showed that sellers used their brand identity to create products so they owned the buy-button and didn't share it with other sellers. It was used as a differentiation strategy. 2 sellers experimented with sponsored brand banners with mixed or ambiguous results. Unable to quantify the benefit vs investment.	Dirusso et al (2011), sellers that had a strong reputation did not command higher prices for their goods and that traditional reputational based marketing assumptions such as strong branding logos were not applicable on Amazon marketplace transactions. Li et al (2016) found that product review ratings and review volumes were positive determinants of sales ranking and performance.
3	Big Data	Use of reports for accounting discussed	84% of respondents use the market place data to do their market research. They use it mainly to research products to sell, enhance product	Data is not taken from the marketplace it is taken from third-party companies such as JungleScout and Helium10.	An abundance of literature that is highly generalized. The literature assumes that the businesses have total control over the data they collect. And do not

	Category	Forum Data?	Survey Data	Interview Data	Literature
			listings and make price decisions. Data analysis is done in-house using internal data (43%) and a mix of internal / external (35%). Data analysis skills are required.	All companies required data analysis skills but no formal qualifications were required to fulfil the needs.	refer to companies with third-party access to the big data. There are no studies covering big data from the marketplace seller point of view but do cover it from the marketplace point of view. Literature that focuses on the strategy of converting data into decisions is lacking. Most of the literature is concentrated on the data collection and data analysis and do not go far into the decision-making domain.
3.1	Big Data Data Analysis	Not present	43% of participants used in-house resources for data analysis and a further 23% used internal and external resources.	Sellers all said they do not need qualifications to perform the analysis and research but they did have skilled people to be able to conduct the analysis for their businesses.	Nunan & Di Domenico (2019) found that of the top universities, Marketing courses were lacking in the analytics skills area, however, some courses were built around this need for analytical skills.
4	Formal vs Informal Marketing Plans / Strategy	Not present	Data showed that more than half 52% had no formal marketing plans and 30% had all-encompassing strategies. Marketing Mix used by 44% of respondents and 15% of respondents used SWOT/PEST models. No other models were used for strategy or planning.	All sellers said their plans had a formula or typical approach but no formal plans existed.	Peterson (2020) identified that that businesses are more likely to adopt an EM style of marketing if they have high-growth strategies in high capability environments. Nouri & Ahmady (2018) entrepreneurs conceptualized marketing in six core themes Hansen, et al's., (2019) EM concept

	Category	Forum Data?	Survey Data	Interview Data	Literature
					model, comprising of both and macro and micro environment considerations.
5	Customer Access and Customer Reviews & Feedback	Sellers discussed if they could access their customer data to make direct contact and issue direct marketing. Other dominant discussions were around negative customer feedback and photos and if they could be removed.	Ability to influence customer satisfaction was scored very low at 2.2 out of 5 in the survey. Ability to influence customer satisfaction was scored the lowest out of the control and influence questions 3.9 out of 5	Direct access to the customer was raised as a negative by all interviewees. Sellers influenced the customer experience by concentrating on the quality of the things they could control such as product and product listing.	Melnik & Alm, (2005) and Malak, et al (2021) found, a seller's overall reputation has a statistically positive influence on their performance and customers' willingness to pay. Wu, et al, (2020) they found that the estimation of the number of fake reviews varies in the literature from 16%-33%. With several high-profile cases cited.
6	Search Ranking Optimization.	Various theories why some sellers listing appeared at the top of search results and theirs did not. Gaining the buy-button discussed frequently.	The word "Rank" is mentioned in 10% of the seller forum posts.	Sellers discussed that search ranking optimization is the main focus of the company. They aim to achieve this by a mix of product key words, optimized product listings and descriptions.	Johnson, (2014) 70% of consumers only select products that appear on the first page of the search results, 20% on second page and less than 10% would go as far as the fourth page.
7	Marketplace Control and Influence	Amazon products that competed with theirs and fluctuating prices.	Respondents did not feel pressure to participate in events such as black Friday	Participants didn't feel pressure to join promotions but did feel pressure to join seller programs and become accredited with things like Prime on Amazon to remain competitive.	See Dominance section below
8	Marketplace dominance	Forum data showed frustration with the marketplace decisions on disputes. Questions asked about	Questions asked about pressure were scored very low on the scale (scores less than 3). Scores on the control questions were score highly	No evidence of dominance seen. Sellers did discuss the marketplace as a game with rules that you have to play by to be successful. Most	Faherty et al (2017) found that Amazon often encroached into markets with its own label brands, making it impossible for sellers to compete.

	Category	Forum Data?	Survey Data	Interview Data	Literature
		appeals and decisions.	meaning sellers do not feel pressure or loss of control overall.	praised the marketplace for the opportunity.	Belhadj et al (2020) found that the marketplace will operate as a 'retailer' for higher volume, higher velocity, repeat sale items but acts as a marketplace for lower volume lower velocity products. US congress questioned Jeff Bezos about examples of takeovers in 2020.
9	Damage	Damage impacted pricing decisions	Damage was not seen as a big concern. Low score of 3.1 but 50% of responses had some degree of concern.	No concerns over damage raised. Praise given for the way damages were handled.	Not present
10	Data Accuracy	Sellers raised concerns over accuracy of marketplace data	Trust in the data increased in-line with experience. Under 2 years had low trust in the data.	No distrust in the data was seen in the interviews. This could mean that experience is linked to trust.	Not present
11	Marketplace behavior impacting own store / website behavior	Not present	30% of sellers had an overall marketing strategy that included offline sales .	Sellers didn't show any evidence that their marketplace decisions affected decisions off the marketplace.	Not present
13	Social Media Marketing	Not present	Data showed only 0.5% of sellers used social media such as Facebook for selling their products.	All sellers interviewed said they hadn't used social media as a marketing tool but said it could be an opportunity. They were achieving their goals without this as a tactic.	Lou & Yuan, (2019) Influencers' trustworthiness, attractiveness, and perceived similarity (to their followers) positively influenced their followers' trust in branded posts therefore driving traffic towards the product they were endorsing Vodák, et al., (2019) Influencer marketing is being used for a two-way communication

Category	Forum Data?	Survey Data	Interview Data	Literature
				opportunity that is a secondary strategy for social media to match authentic conversation with marketing messages.

Source: The Researcher

5.10 Discarded Themes

As discussed in chapter 4.5.2 (Analysis of the Qualitative Data: Thematic Analysis of the Interviews). The approach to the thematic analysis was taken from Thomas (2016), in that only the relevant themes will be focused on as part of the analysis of the qualitative data as opposed to the approach by Corbin & Strauss, (2005), which suggests that all themes should be analyzed. To ensure that the analysis conducted in this research complies with the basic principles of grounded theory i.e. that the theory should emerge from the data and not be influenced by preconceived models, theories hypotheses or by the bias of the researcher; the themes that did emerge from the qualitative data that were chosen to be discarded from the results are seen below. Justification of each one is also provided. These discarded themes are provided here for transparency.

Table 29: Discarded Themes from the Qualitative Data Analysis

Theme	Justification for Discarding
Damage	Damages were discussed in the forum data but no evidence seen in the survey data or the interview data that it was a big problem
Data Accuracy	No evidence seen in the forum data or the interview data that data provided was inaccurate.
Marketplace behavior impacting own store / website behavior	The vast majority of the data points suggest that this activity is conducted via online and offline sales for most participants are very low or limited to 'business to business' sales.
Marketplace dominance	No evidence seen of marketplace dominating or moving in on seller product lines. However, questions still remain on big data provision and how the marketplace providers use seller data internally. This will be discussed in the marketplace influence theme and not discussed as a separate theme.
Customer Relationship Management	With respect to customer services. Evidence suggests that this is limited to managing feedback and product reviews. The CRM is out of the seller's influence. However, influencing the customer experience will be discussed.
Social Media Marketing	No evidence that this is widely used, however, this topic will be discussed as an opportunity to add to the set of promotion tools.

Source: The Researcher

Mostly, the discarded themes were not linked or relevant to the aims and objectives of the research, which is in line with the ethos discussed in Thomas (2016) that outcomes of the analysis should be "*themes or*

categories most relevant to research objectives" (Thomas, 2016, p. 241), as opposed to theory that includes all themes and categories within the traditional grounded theory approach. Some of the discarded themes had links to other categories so will be discussed, in-part, in the next chapter anyway.

5.11 Iteration

As discussed in chapter 3.4.7 Theory building, the intention was to produce a draft of the expected conceptual model, this would be introduced to each interviewee after the model was built up and adjusted with their data and themes. This was in keeping with the grounded theory methodology discussed in Gill & Johnson (2010). Due to the timing of the interviews, which was during the third UK COVID19 lockdown between January and March 2021. It was difficult to get any time with the sellers and very difficult to generate any volunteers. This was due to the significant sales benefit the sellers were seeing due to the lockdown and people not being able to shop locally. In order to enable this iterative approach either a second meeting or an extended meeting would have been needed with the sellers and the researcher ran the risk of losing the volunteers due to the time commitment. Instead the model was shared with each of the participants after the final model was created. They were all asked for any comments or feedback they may have. This did not have a significant bearing on the outcome of the research as the model was built up using the data and themes that emerged at each stage of the research and gaining feedback on the model would have been desirable but not essential to the final outcome.

5.12 Chapter Conclusion

Chapter six has discussed the patterns and themes seen in the qualitative data from the interviews with the five marketplace sellers. These have been triangulated with the findings seen in the forum data and the questionnaire. Parallels were also drawn with the themes seen in the literature. The triangulation of data has shown that there are seven key themes that have emerged from the data, these are outlined below:

1. Small Business with Access to Large Scale
2. Marketing Mix
3. Big Data
4. Formal vs Informal Marketing Plans / Strategy
5. Customer Access and Customer Reviews & Feedback
6. Search Ranking Optimization.
7. Marketplace Control and Influence

It is expected that these seven elements will form the foundation of the academic model / framework that this research was aiming to achieve. Using the results data from chapter five (survey results & Interview results), chapter 6 will discuss the data, results and the themes that have emerged and link the findings to the research objectives, drawing theoretical and practical conclusions and ultimately leading to the overarching objective of the research, which is to produce a marketing model / framework which can be used as an academic and practical model for businesses selling on online marketplaces.

Chapter 6. Discussion

6.0 Introduction

This chapter will provide an in-depth discussion of the findings of this research. The chapter will be split into seven subsections, which address the seven key themes outlined in the previous chapter. Each section will compare and contrast the findings to the existing body of literature and outlines the findings with regards to the marketing models that were discussed in the literature. This will lead to a presentation of a conceptual model for use in developing marketing strategies when selling on online marketplaces. This model has some alignment with the theoretical framework that was discussed in the literature review, which has been built upon using the results gathered from the questionnaire and interviews. These new findings are presented on the conceptual model to construct a holistic picture of strategic marketing in a big-data rich online marketplace environment.

Table 30: Summary of Discussion Points

Discussion points	Summary
Small Business with Access to Large Scale	Sellers have immediate access to large scale markets and a large customer base without having to invest in resources and infrastructure to achieve this. This has implications for traditional strategic marketing models as market entry and market penetration form key parts of these models.
Marketing Mix	The marketing mix is affected by various restrictions that the sellers work within, on the marketplace. This section will walk through the different "Ps" of the marketing mix and what barriers are faced by sellers and what implications these have on the marketing mix decisions. Marketplace sellers do not work in a free market, so marketing decisions and business models have to be adapted to serve the marketplace rules and restrictions.
Big Data	Findings show the following: Big data is a large part of the strategic marketing decisions of the online seller. Big data is a cornerstone of the decision-making process. The online seller does not have access to their own big data as a traditional company would. Access to market wide data is subscribed to by the seller, from a third-party agent, who performs all the big data processing ready for use in the decision-making process. This section discusses the implications of this difference between traditional companies and online marketplace sellers.
Formal vs Informal Marketing Plans / Strategy	Findings show that informal marketing and strategic planning is common among the online seller population. The discussion is focused on the formal vs informal style of planning and whether this is linked to entrepreneurial styles of leadership, education and skills.
Customer Access and Customer Reviews & Feedback	Findings showed that sellers have a disconnected relationship with their customers. The section discusses the implications of this unique relationship and how this lack of customer interaction affects the decision-making process and customer experience management.

Search Ranking Optimization.	Findings showed that the number one strategy for winning customer orders was search ranking optimization. The section discusses how the marketing mix decisions all point towards this strategy and how all other tactics beyond search rankings, form the basis of a conversion from viewer to buyer strategy.
Marketplace Control and Influence	Evidence was not found of marketplace dominance despite this being widely covered in the media. However, evidence was found of marketplace influence on seller behavior and decisions. This section discusses how this influence can be identified and how best to leverage this for the benefit of the seller and not the marketplace.

Source: The Researcher

6.1 Small Business with Access to Large Scale

The findings in this research showed that sellers were likely to be small businesses with less than ten employees but typically less than five. Data from the interviews led to the notion that marketplace selling in contrast to traditional selling has the significant benefit of having instant and direct access to massive markets with massive customer bases. Findings also showed that launch of a business onto a marketplace or multiple marketplaces came for very little capital investment, little resources and experience and skills required to launch were not required. For example, a company launching on Amazon UK marketplace would have had instant access to over 15 million prime customers and 86% of UK households (Mintel, 2019). Market entry and market growth in this context should be carefully considered as both a significant benefit as well as a significant restriction. Innovation, market penetration and market development are highly restricted. External forces impacting sellers are likely to come from the marketplace itself. If marketplace selling was the sole source of income, sellers could face issues with business viability if the marketplace provider changes the landscape of the market. A generalized SWOT analysis can be seen below that summarizes the typical seller based on the findings.

Figure 58: SWOT Analysis: The Marketplace Seller

Strengths	**Weaknesses**
• Instant access to a large scale market with millions of customers. • Low setup and operating costs. • Low capabilities required in infrastructure, skills and experience. • Access to a large manufacturing base with high product innovation capability and low cost. • Big Data is collected, prepared, and presented to all sellers and contributes to decision making power.	• Little to no access to customers for marketing, product development and customer. experience purposes. • Very high levels of competition. • Highly restricted marketing options. • Data is provided to all in the same way, so data use does not lead to competitive advantage.
Opportunities	**Threats**
• Social Media and Influencer marketing. • Diversification across platforms and delivery. providers to provide scale and to mitigate sensitivity to operating on one platform. • Product diversification / differentiation is key to the control of the listing.	• Very High Levels of competition. • Sensitivity to fee changes, regulation and marketplace capability. • Marketplace Dominance (Amazon). • Variability of storage allowances can increase costs and add steps into the supply chain.

Source: The Researcher

With regards to the models in the literature that discuss strategy with relating to the market, the Ansoff matrix (1957) marketing strategy model, discussed in chapter 2.2.2, has market penetration and market growth strategies as two core components of marketing strategy. The model, although very popular in traditional marketing texts, is not wholly applicable to the seller community. Ansoff assumes that the model user is a traditional product manufacturer and that there are multiple marketplaces open to expansion. The findings show that the seller communities could be product manufacturers, and product retailers but are more likely to be retailers (selling other companies' products) or product designers who have their products manufactured in China, then shipped to the warehouses ready for sale on the websites. The growth strategies of the Ansoff matrix are also not applicable to these types of manufacturers when selling in this way. New markets are only available when new platforms or new geographies come along as most marketplaces have open access to global or continental markets already. Market growth is therefore limited to expansion into multiple geographies if the seller is only using one. Findings show that it is relatively easy to access multiple geographies and can be a two-way decision, that can be switched on or off when required. These types of decisions are low risk and require little in terms of resources to enact. Market growth can also be seen across platforms, findings show that sellers can have expansion strategies onto other marketplace platforms, however, these expansion plans can be difficult without the correct storage and fulfillment infrastructure, in the case of eBay and notonthehighstreet.com the sellers have to store and ship their own products, so requires capabilities to do so. In the case of Amazon both can be accessed for a fee.

Similar to the Ansoff matrix, Kotler & Keller, (2019) promote the Boston Consulting Group Model (BCG) which has growth strategies that are applicable for sales growth but not marketplace growth. Marketplace growth is an external factor which is within the full control of the marketplace provider. If the marketplace were to limit seller activity in order to promote its own products or those of preferred vendors, which is most applicable to marketplaces such as Amazon, then the sellers' business could suffer. Similarly, if the marketplace were to restrict warehousing and storage that it allocates to sellers, this could render a product or even a business model as non-viable or not profitable. This restriction could even add intermediary steps into a supply chain at short notice. This is also applicable with changes to fees and fee structure, which can impact the business viability of a low margin operation. The BCG model will be discussed in more detail in the product part of the Marketing Mix section of this chapter.

On the topic of entrepreneur marketing Nouri & Ahmady (2018) as discussed in chapter 2.3.1. found that entrepreneurs conceptualized marketing strategy over six core themes. Their model included market entry and market growth as strands contained within the six core themes. Even describing market penetration and market development as core components of the core marketing decisions and growth decision strands. These concepts assume that the entrepreneur has control or influence over their market and their mode of entry to that market. These concepts are difficult to generalize in the context of the online marketplace seller. The marketplace, in terms of development is beyond the control of the seller and their entry strategy is also limited. Findings show that there are only 2-3 main market entry strategies for the marketplace seller, these being; an importing strategy, a drop-shipping strategy as well as using the marketplace as a secondary outlet to supplement a primary selling source.

Market entry and market growth are two factors that are very restricted or even fixed components of the selling environment, these two factors although important are not within the full control of the seller. These two components of marketing and business strategy will be considerably less detailed, and require less resources within the plans of a sellers' business. Instead, marketplace selling could be one of the growth strategies of their overall business growth if their primary selling outlets are via other means. A sole seller, on the other hand would not need to consider these strategies in much detail, other than when considering expansion into new geographies. The Macro environment is wholly controlled by the marketplace provider and influenced by external factors such as legislation and regulation. Sellers should consider these marketplace-controlled factors as significant influences on their operations. Factors such as fees, storage allowances, shipment performance and customer care are all services provided that if change or performance were to degrade are all likely to negatively impact the seller's business.

This internal and external lack of control over the macro and micro environments, is unique to the online marketplace seller. Traditional selling in online or offline markets, the business owner has some degree of influence over its marketplace and what it is able to offer to the customer, including how they innovate and shape the market, moving it forward and inspiring competition. Innovation in the market is limited when

selling on online marketplaces. It is limited because it is wholly within the control of the marketplace provider and the seller must operate within the roles and parameters set. Innovation is limited to the product-offering to the customer and some aspects of the product listing. With regards to this lack of innovation or control, the findings show is a frustration within the seller community, but it is not seen as a major barrier to success. Any innovation that is put forward by the marketplace mostly has a positive impact on the seller's sales. Findings also show that innovation is high within the areas that the seller does have control over, areas such as the product. This innovation is used as a key enabler to differentiation. This finding not only corroborates the findings by Kim, et al., (2004) on differentiation being a key strategy in e-commerce environments but also demonstrates that the sellers have more of an entrepreneurial approach to marketing (Stokes, (2000) and Morris, et al (2002)).

6.2 Marketing Mix

The following section will cover the 5Ps of the traditional marketing mix and what the findings show, their implication to the research context and how they relate to the literature. Branding has also been specifically listed as a sub topic aside from the 5Ps, due to the wider implications this had beyond the 5Ps.

6.2.1 Product

It is clear from the findings that traditional marketing models such as Porter's Generic strategies (discussed in section 2.2.2) are very applicable to marketplace selling, as the model makes no assertions over the market or the sellers' influence over it. Evidence was seen in the findings that the seller community used all of the four strategies proposed by Porter. The most prominent being the differentiation strategy. The cost strategy was used as a means of achieving the buy-button for products that shared the product listings with multiple sellers. In the case of Amazon, cost leadership and cost focus (in many product categories) is a strategy often used by them to not only win the buy-button but to drive customers to their website away from their other wider competitors. They use this strategy as a means of driving "traffic" to their website. Loss leading products are also often used as a means of driving this customer volume to their website. It is difficult for the seller to compete with this strategy, so cost focus and leadership strategies that the findings have shown to be less common. The most prominent strategies are in the differentiation and differentiation focus segments of the model. The sellers use this differentiation on an individual product level, to achieve a solo listing where they own the buy-button and customers only have one option as to which seller they are buying from. Findings showed that sellers used branding, packaging, bundling, and product emulation (very similar product sourced from China) as strategies to differentiate the product enough to own the product code and the product listing. The listing can then be fully controlled by the seller including the keywords, product details, description and images. If this is achieved then the seller can tweak keywords to achieve the optimum search ranking. This differentiation focused strategy was also found in the literature. Kim et al (2014) proposed that differentiation will show superior performance to cost leadership in e-business contexts. Evidence in the findings corroborated this notion.

Figure 59: Research Findings in Relation to Porter's Generic Strategies

Cost Leadership	**Differentiation**
Evidence was seen in the findings that sellers competed on cost for products that shared the buy-button with other competitors.	Findings showed that sellers used a differentiation strategy to own the buy-button. Their differentiation was varied but one common theme was that products were differentiated using branding and bundling in order to make them unique from the competition.
Cost Focus	**Differentiation Focus**
This strategy was the most difficult to achieve unless the products were not of sufficiently high in volume for the marketplace to take interest in selling them. Sellers require scale to achieve this cost focused strategy.	Findings showed that many sellers operated on a differentiated product only strategy. This allowed them to not worry about buy-button competition and allowed them to focus on search raking optimization, to achieve a sale.

Source: The Researcher adapted from Porter found in (Kotler & Keller, 2019)

Evidence was also seen relating to other product focused models such as Boston Consulting Matrix, were also applicable to marketplace sellers. The model and the four segments are appropriately generalized that they have applicability across multiple selling modes and platforms. When considering models such as BCG, the selling market becomes irrelevant, as is it is wholly product focused. Although specific examples of each product type were not seen directly in the findings, products with high velocity that generate cash flow, the "cash cow" status could be inferred due to the examples given of selling higher volume products at lower margins (such as Company B selling 'teddies' in section 5.8.2). Product launch strategies were discussed with all interviewees, the most prominent launch strategy was a very specific strategy of using Pay Per Click (PPC) advertising to gain some momentum and then aiming for the product to gain search rankings organically. This could have deemed to be the "rising star" strategy. Products that are not selling and the sellers running products to a close was also discussed. These could be deemed as "Dog" products. Lastly, the "question mark" products, were not directly discussed but the newer products or products that do not have the data to direct the marketing strategy, could be deemed as the "question mark" products. The literature review showed that one of the criticisms of BCG is that it has been overtaken in the modern organization by portfolio management (Madsen, 2017), the findings show that the marketing strategy was product led and not formulated by portfolio management. Some small pieces of evidence were seen of sellers seeking and adding more products to their listings to compliment bestselling products as accompaniments, but overall this was not the prominent strategy.

Models such as Ansoffs Matrix are much less applicable to the marketplace seller, the findings show. This is due to the market element of the model (new markets and current markets). The Ansoff model assumes that the user is selling into multiple markets, or via multiple modes and each market / mode of selling requires a new strategy or there is a growth strategy that involves moving into a new market. This has some applicability to the marketplace seller if this selling mode is one of many selling modes or one of the many markets that they sell into. The Current market is therefore the most likely axis that the seller will

operate in, even if there are expansion opportunities into other geographies. The product axis is, however, applicable to the marketplace seller. Current products in current markets, "market penetration" segment, this focuses on generating sales of existing products. There are many strategies seen that are aligned to this segment, these being price adjustments, discounting, promotion, among others. The second segment that is applicable to marketplace sellers is the new products in current markets, "product development" strategy. As discussed above, most sellers had a similar strategy of achieving organic search rakings after a launch period, where they would invest in PPC to get some momentum into the product. Findings showed that the new product strategy was very much data-led, and that the sellers used the big data research to find successful products or gaps in the market to move into.

Traditional marketing models relating to products, that have the product rather than the marketplace as its focal point still have generalizability, in the context of online marketplace selling. These are models such as Porter's generic strategies and the Boston consulting matrix. Models that have axis or elements that relate to different marketplaces are not as applicable to this context and so are not usable in formulating marketing strategy.

6.2.2 Price

The Product lifecycle PLC, suggests that price and promotion strategy is linked to the products stage in its lifecycle. The findings of this study did not show that price strategy was linked to lifecycle directly. The findings showed that pricing was more aligned to the BCG model and was designed to leverage profitability based on costs. As discussed in the product section above the findings showed that there were clear strategies for pricing, depending on the type of product. Lower process and lower margins were applied to higher velocity products that generated cash flow, with higher prices for slower moving products. Discounting was used as a mechanism to deplete stagnant products that were costing the seller money, but discounting strategy was only ever used working towards a break-even outcome. Below is an assessment of the findings with regards to pricing strategy in each of the four segments of the BCG matrix.

Figure 60: Findings in Relation to the BCG Matrix

Star Products	Question Mark
Higher velocity higher volume products. The main strategy for these were to have a lower price and lower profitability. The lower process was also achieved by incurring less storage fee for the faster moving product. Sellers ensured these products were never out of stock and always competitively priced.	Launch products or products sourced to test market gaps. These products were priced using a data-led strategy. Using tools such as Helium10 and JungleScout to research the market and set process appropriately.
Cash Cow	**Dog Products**
Products that were regular sellers that commanded higher profitability were priced competitively but not too low as to wipe out the profit potential of the products. Sellers ensured that these products were always in stock and search rankings always optimal.	These are products that are not selling and that were generating storage fees or longer-term storage fees for the seller. The strategy would be to heavily discount these to move the product. the strategy was to discount in order to achieve a breakeven point. Dog products take up the seller's storage allowance and some sellers said they would have these returned to avoid longer term storage fees and replace with their faster movers.

Source: The researcher adapted from the BCG matrix found in (Kotler & Keller, 2019)

As discussed in the product section, there was no real evidence found on loss leading product strategy in the seller community, however, there was evidence seen that sellers had the view that the marketplace was selling products at a loss as a strategy to win the buy-button. There is some speculation seen in the literature that this is a key strategy to drive customers to their marketplace and away from other competition. This speculation was addressed in the US congressional hearing, when questions were asked about selling items at below the cost value, to which Amazon gave a vague response neither confirming or denying the strategy, "*Amazon also occasionally offers deals and promotions on its products—including Echo devices—providing additional value to customers*" (U.S. House Committee On The Judiciary, U.S. Congress, 2020). For the most part the findings show that sellers, unless they are involved in selling high velocity, high volume products, sell all their products at a profit covering all their costs. There was no evidence seen that the seller would manage overall profitability i.e. losses offset by higher profitability on other products, maybe this is because unlike the marketplace the seller is not aiming to drive the volume of customers to their website, as this is already happening. Their aim is to entice customers, once they are browsing, to buy their products.

6.2.3 Place

The literature showed that using the marketplace for storage and fulfilment was a key strategy for gaining benefits, with the findings showing that the majority of sellers 74% used this mode of operation. Section 2.3.5 discussed the different fulfilment options that the marketplace seller had, these being merchant fulfilment where the seller handled all of their own inventory and shipping, and the second option, where the marketplace stores and fulfils the seller's orders for a fee. Sun, et al (2020) conducted experiments and

their findings showed that financial rewards could be positive by up to 35%, by fulfilling customer orders from the Amazon warehouse when they compared the sales and profitability from their past sales of the same items. The findings showed that the strategy to use the marketplace to do the storage and fulfilment had a number of benefits these being; access to markets, access distribution across the marketplace network, access to premium seller status, favorable search rankings, cost effective and faster shipping with more cost-effective storage. The data in the findings show that these were stated as benefits but the financial impact / benefit of these were not quantified. In hindsight, it would have been good to examine and quantify the positive impacts of these benefits. The findings showed that there was some risk in the strategy to use the marketplace for storage and fulfilment. These risks were discussed with the sellers and they expressed that they did not feel concerned about them but they do exist. The first risk is that the sellers' pricing strategy involved an estimation of the seller fee structure (storage, distribution, marketing and fulfilment), if these fees were to dramatically change or be raised without notice, this could wipe out some of the seller's profitability, particularly the sellers operating in low margin product categories. Changes to storage fees for sellers that have a large quantity of inventory stored could dramatically impact their profitability and changes to storage allowances could impact the sellers that have a lot of low velocity products stored in the warehouses. In these situations, the sellers could be faced with intermediate storage needs and increased costs. Lastly the risk of the marketspace moving in on their products, where they are able to, is also a risk. This kind of product "take-over" although not seen in the findings has been found in the literature and will be discussed in chapter 6.7.

'Place' in terms of geography was found to be mixed in the experience of the seller. On the one hand the seller has instant access to multiple geographies at the click of a button, where using the marketplace hubs for distribution can give the seller access to storage warehouses in multiple geographies, therefore access to the customers / websites in those locations. This, however, has drawbacks; the seller has to register in multiple places for tax purposes and manage differing tax rules and charges / accounts. The findings showed that some sellers had bad experiences of this, finding it too complex to manage for the amount of additional sales it brings. Findings showed that after experimenting, some sellers pull back their operation into one location to more easily manage the taxes. This was found to be the case in smaller volume / sales businesses. Larger sellers used this as an expansion strategy and options to go global is seen as a second phase in their growth. Post Brexit, the findings also showed that the complexity of managing multiple markets also caused sellers to pull their stock back into the UK, to cut out the additional complexity, this being because the local geography is capable of sustaining their business objectives and the volumes required to achieve them. The additional benefit of this was that the seller no longer had to provide multiple language items localized for those geographies.

In summary the marketplace gives the seller instant access to a large-scale marketplace if they have the resources to handle it. It is a decision for the seller to evaluate, whether they require the scale beyond local geographies to achieve their goals. The effort / reward ratio must be examined to make this assessment.

6.2.4 Promotion

As discussed in chapter 5. there are a number of different ways that sellers use marketing campaigns and brand awareness campaigns, but this portfolio is limited to what the platform can offer. The findings showed that promotional activities were not a big part of the marketing activities for the seller, with 60% of the participants stating so. This finding was corroborated by the sellers who were interviewed, confirming that promotion was not a key part of their marketing activity. The findings showed that where promotion tactics were used, the overwhelmingly most popular option was the pay per click (PPC) marketing.

The data in the literature also showed that PPC in the form of sponsored products was the option that sellers said yielded the best gains, with 55% of respondents to a survey rating it the best method of gaining return being PPC on sponsored products, with banners and branding coming in as second and third in the list (Statista, 2020).

With regards to traditional marketing models relating to promotion, the Product lifecycle suggests that price and promotion strategy is linked to the products stage in its lifecycle. The findings showed that PPC and general promotional activities where linked to the PLC.

Table 31: The Findings in Relation to the Product Lifecycle

Stage	Findings / Strategy Used
Introduction	PPC marketing is applied to get the product noticed. This is because the listing will have no ratings, reviews or questions etc. it will also have no customer linked data that helps the recommendation algorithm to recommend the product to the customer.
Growth	Once the product is established the seller will revert to an organic search ranking strategy and only apply PPC to boost a products sale rather than generate a baseline.
Maturity	Organic sales ranking and organic sales are used in the mature product listings. Products that have many reviews earn the trust of customers and are recommended more often without the need for PPC.
Decline	Discounting strategy is used to run a product to a de-list stage. A breakeven strategy is applied to aim not to lose money on the purchase investment.

Source: The Researcher adapted from the PLC model found in (Kotler & Keller, 2019)

For sellers who shared product listings with other sellers the objective was to gain or win the "buy-button". This means that there could be several sellers all selling the same product and the customer will only be presented with one of the several options for the sale. This winner is selected by the marketplace algorithm or can be manually selected by the customer. The algorithm may select a certain seller based on multiple factors such as speed of delivery preference of the customer, number of positive feedbacks / customer

ratings, price and finally the PPC applied may give more weight and priority to the listing. The strategy for gaining the buy-button therefore can be multi-faceted. With regards to promotion for products that have equal standing i.e. they are closely priced, they each have the same delivery speed and have a similar number of feedbacks, then PPC may be the only differential for gaining the buy-button to generate a favorable ranking. This PPC strategy, or a strategy that marks down the listing price to the same value of what would be spent on PPC, could also generate this favorable differential. Brand and banner advertising can also generate traffic towards the listing but the literature shows that sellers rate these two techniques as less effective then PPC sponsored products. The findings corroborated this, with branded advertising being only mentioned by one seller as something they had experimented with but has questionable impact.

Findings showed that promotion via options such as deals and discounting and in particular, using events such as "Black-Friday" were not a key marketing cornerstone in the sellers marketing strategy. The findings showed that the sellers who did partake in these events, lost money on the products that they discounted. The findings also showed that although, on the whole, the sellers did not partake in the events, the events themselves did deliver a positive benefit. This is due to the elevated customer traffic that the event brings to the website. Therefore, the findings showed that the seller did not need to discount during the event to increase sales or benefit from it.

In terms of promotional options, the marketplace has a very limited list of possible tactics for the seller to use and all of the available options cost the seller money, while being a source of revenue for the marketplace. The marketplace, therefore, incentivizes the seller to use their paid options. There is little to no scope for the seller to innovate or do any direct marketing to the customer, due to the lack of access to the customer that is discussed in Chapter 6.5. PPC marketing through sponsored product listings and banners and paid brand promotion are the only three options for the seller as well as discounting through running a deal. The findings show that the appetite for paying for PPC is low, as this strategy added another fee to each sale of a product and ate into the profit margin of the sale. Some sellers have, however, showed some level of innovation and they have been able to achieve this via their differentiation strategy. Some direct marketing can be done through differentiation. Fliers, promotion codes and other small inserts can be attached to the product itself, or inserted into the packaging of the product. An example of this can be found in Appendix 13. This type of innovation is the small numbers of direct marketing that can be achieved if the seller is not shipping their own product. Another way the seller can access the customer directly is through social media influence. There is evidence in the literature for example, Lou & Yuan, (2019), state that product promotion using social media influencers can drive traffic directly to a product listing, however, the findings showed that sellers do not often use this option but on the whole, they did see the benefits and did acknowledge that they should be doing more of this type of marketing. It is relatively

inexpensive and only costs them a free giveaway to the relevant influencer. The benefits are direct links to the sellers' product listings, which bypass the search algorithm and the buy-button competition.

6.2.5 Branding

When it comes to branding and brand identity when selling in online marketplaces, Dirusso et al (2011), found that seller reputation was an important factor in customers choosing to buy from them, however, they found that sellers that had a strong reputation did not command higher prices for their goods. Dirusso et all (2011) also found that traditional reputational based marketing assumptions, such as strong branding logos were not applicable on Amazon marketplace transactions. The findings of this research corroborate with the findings of Dirusso et al and that branding was not a key factor in success of a seller's business, nor did brand marketing play any significant role as a successful marketing tactic. The seller statistics produced by Statista (2020) discussed in chapter 2.3.4 also showed that 45% of sellers did not think that sponsored products and branded banners had valuable return. This directly corroborates the findings with respect to branded marketing, as sellers did not have great experiences when experimenting with this marketing option. Despite the branding not being a factor or a benefit in the customer purchasing decisions, the overwhelming advantage of a brand was that the seller was able to list unique products under their own product code / listing rather than sharing the listing and the buy-button with other sellers. This means that the seller never has to compete for the buy-box but only has to compete for search ranking. Branding therefore is a differentiator for products on the marketplace allowing the seller to offer a listing that they have full control over, and that belongs to their business individually. The findings show that sellers frequently made modifications to products or added their own logos / branding to products and bundled the products so they could add branding to the bundle. This was done in order to make them unique enough to list as a unique product identification code and therefore, not have to share the buy-button with other sellers or even the marketplace themselves. Findings showed that branding and brand campaigns were a marketing tool offered by the marketplace in order to feature a seller's brand at the head of listings and even in the home pages of some product category landing sites. There were other brand related offerings such as Amazon launch pad and Amazon handmade that could feature brands that fit the criteria for these programs. Findings showed that the benefits of these brand programs, however, were not significant enough to yield positive results and negative impacts, these were even discussed in connection to the Amazon launch pad program.

Findings also showed that sellers did not agree with the literature, specifically they thought that their branding did play a role in purchase decisions, and that the customers were aware of their brands when making a purchase decision. This may not necessarily be the case and the perception of the seller may be skewed by their perceived benefit of having a branded product from a seller's perspective. The perception of the customer of the seller's brand could form the basis of future study in order to determine if the literature is still true.

These findings corroborate the findings in the literature, that branding does not play a significant role in a purchasing decision, but over and above the findings in the literature, the branding does serve as a significant benefit as a product differentiator and serves a seller well in competition for control of the buy-button. An example of a product that shared a buy-button with multiple sellers can be found in Appendix 14.

6.2.6 People

The marketing mix has a fifth P for people. This P is usually focused on the customer and strategies to understand the customer. Secondary to this the People strand is also concerned with the internal people resources of the company and how these people represent the brand, how they add business value via their skills and how they provide the best customer experience amongst other skills that add value. In the context of the marketplace seller, the customer is off limits from a traditional marketing sense, to the seller. Traditional, customer segmentation, insights and targeting strategies do not work in this context as the seller has very little access to perform customer data analysis and customer profiling. This was a key theme in the findings and will be covered separately, in detail, in chapter 6.5. although this seems odd, that the business cannot perform market research, segmentation, targeting and positioning exercises using customer data, the findings showed that the sellers showed no concern over this or saw any need to do this type of market research.

In the case of the internal people the focus of the research was on the skills and education of the people within the seller organizations. The findings showed that the sellers had traits of entrepreneurs and showed some evidence that they were following and the context was conducive to an entrepreneurial marketing EM approach. This will be discussed in chapter 6.4 when discussing formal vs informal marketing strategy. The findings also showed that formal qualifications and in particular marketing qualifications were not essential to understanding and conducting effective marketing strategies. Lastly, the findings showed that the sellers all required skills to perform big data analysis for market research and this was essential for compiling marketing strategy and making marketing mix decisions. This, however, did not require formal qualifications and could be learned on the job. This will be discussed in chapter 6.3 when discussing the use of big data by the seller community.

6.3 Big Data

The big data literature review found that there was an abundance of literature that is highly generalized, and not focused on the big data experience of companies operating in specific marketplaces, the literature assumes that the businesses have total control over the data they collect. Most of the literature is concentrated on the data collection and data analysis and do not go far into the decision-making domain. The researcher's presumed conditions of the seller with regards to big data, prior to the research, were that they would have access to all their own customer and sales data. The assumption was that using platforms such as Amazon, who's data collection ability is vast and big data collection reputation is significant, the

seller would have the ability to extract or use the platform to analyze their own data for marketing and customer segmentation purposes. The assumption was that like a traditional company selling through its own website and collecting its own data, that the data would be naturally available through the platform to the seller. The findings of the research were that the data available to the seller community on the marketplace was very limited. The sellers were able to see and manipulate pre-built dashboards that showed sales, volumes, customer page views, PPC and return on investment metrics, inventory storage, inventory health and customer contacts / feedback metrics. These dashboards were pre-aggregated meaning drilling down to the raw data was also restricted to one or two layers down i.e. monthly to daily and hourly sales for example. The sellers therefore, were highly restricted to what they could use their own data for and using it for understanding their customer and their needs, as traditional marketing and product development models suggest, are off-limits. The findings show that the sellers did have access to third-party tools that allow for big data access. These tools access the Amazon API and the third-parties provide to the sellers what the platform is lacking. These tools allow the user to browse the entire library of seller products along with the statistics on performance, sales ranking, search ranking, key words used in the product listings, and PPC marketing and its success rate among other key statistics. The sellers can access this data for a subscription to the third-party. The findings show that the most popular applications are Heluim10 and JungleScout. The sellers use this data for market research, product selection, product evaluation, product sourcing and manufacture, listing description optimization, search ranking optimization, marketing spend evaluation and price decisions, among other things. Several practical examples of usage were given during the interviews. To focus in on a popular example, in the area of product selection, sellers use the tools to first identify products in the category they would like to sell into. They find out what sells and what effective optimization strategies have been used to list the product. They then use the tool to try source manufactures of similar products via links to platforms such as Alibaba. Once a manufacturer is sourced the seller will work out how to make the product their own / unique by adding a brand logo, packaging it with branding, bundling it with other products to make a gift bundle, or changing the product to differentiate it from the competition. They can then list the product as their own without sharing the buy-button. This has the benefit of not having to compete on price to get the buy-button from other sellers.

In terms of Big data capability Dahiya, et al (2021), Dezi, et al (2018), Miller & Mork, (2013), Janssen et al (2017) and Chen & Liu, (2014) all discuss Big Data capabilities as key to harnessing big data for transition through the value chain reaching the decision-making stage. In the context of the online seller the technological capabilities were found to be irrelevant. This is because; storage, capture, preparation and manipulation of big data is not possible. Data captured from customers, customer behavior, sales transactions etc. is done by the marketplace and as discussed, findings show that a very limited pre-aggregated dataset is displayed to the individual seller. The use of a third party is understandable and in line with the view of Dahiya, et al (2021), that BDA solutions need to be appropriate for the business in

question. The solution in this case is wholly appropriate. In terms of competitive advantage, the big data solution levels the playing field in terms of data accessibility, competitive advantage will therefore come from the decisions made using the insights derived from the data. Akter et al (2016) more specifically discussed big data capability in the concept of: Big data analytics capability (BDAC). This is broadly defined as the competence to provide business insights using data management, infrastructure (technology) and talent (personnel) capability to transform business into a competitive force (Akter, et al., 2016). In terms of personnel, the findings showed that all companies that participated in the research required the resources to perform big data analysis. The sellers involved in the interview stage indicated that they had to have the skills required to perform the analysis but this do not require formal qualifications. The researcher assumed that formal qualifications would be required as a skillset to be successful in online selling, particularly when big data was involved. The majority of the sellers interviewed, however, said their people (including themselves) learned to perform this analysis on the job. Formal qualifications although not required could still be beneficial and should be ruled out as a bonus skill.

The literature concerning big data and the subject of marketing, when examining it through the lens of the marketing mix. A framework was proposed by Fan, Lau, & Zhao (2015) discussed in chapter 2.1.9 as well as shown below in figure 61. They proposed a three-level framework that overlays the five Ps of the traditional marketing mix. The three levels of big data follow a transition through its value chain towards application. This being data, method and application. If we look at the big data marketing mix model and cross reference this with the findings, the first level "data" which as discussed is limited to what is offered by the marketplace, and only data supplied by the third-party big data vendors will be available. The second stage the "method" is already taken care of by the big data provider, things like clustering, classification, segmentation, regression or any type of analysis is unavailable, and the seller is presented with the data in pre-formatted, pre-cleaned and user-friendly way. The analysis and dive deep into the data is down to the seller to perform. They can do this in any way they wish. The third stage "application" is mostly within the control of the seller. Findings show that the seller has many and wide-ranging examples of how they move data into an application / decision. This is not true for the "people" data. This P of the marketing mix is mostly out of the reach of the seller.

Figure 61: Research Findings with regards Lau & Zhao (2015) Big Data Through the Lens of the Marketing Mix Model
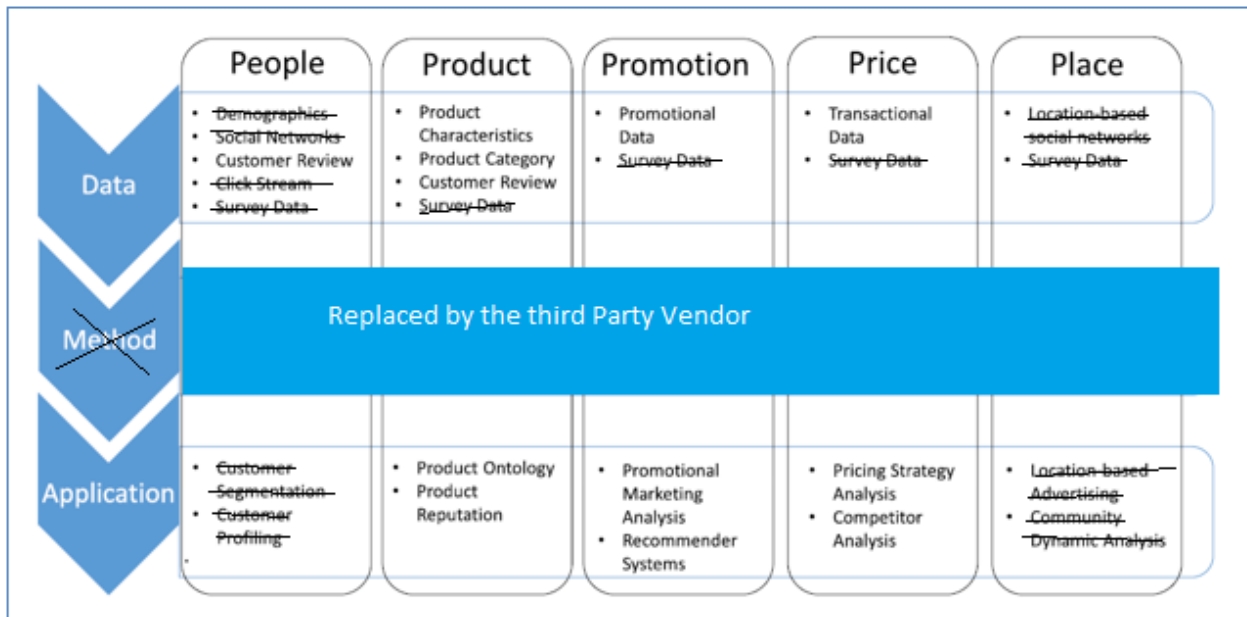
Source: Adapted from Lau & Zhao (2015), added to by the researcher.

With regards to the decision making chapter 2.1.6, which discussed writers such as Chen and Lui (2014), Elgendy & Elragal (2016) and Janssen, et al (2017) each presenting models that had data moving through a value chain leading to decisions and actions. The models have a varied number of stages that the data moves through including collection and analysis phases, eventually ending in application/ decision. As with the Lau & Zhau (2015) model presented in figure 61 above, parts of the value chain style models have most of the collection, preparation and presentation of the data done for them by a third party vendor such as JungleScout or Helium10, hence the "method" stage of this model is replaced by services sold by those vendors. The analysis and application phases remain with the individual seller. The findings showed that the data and the application of that data were key components in gaining success throughout the marketing plans of the seller communities. Evidence was seen that big data was used to drive decisions in all areas of the marketing mix (except people).

6.4 Formal vs Informal Marketing Plans / Strategy

One of the key assumptions of this research was that the seller community, given their small operation and limited resources, would operate as more of an entrepreneurial style of leadership, approach to strategy and decision making. The literature shows that the marketplace seller, being largely comprised of small businesses and the selling environment is conducive to the entrepreneurial marketing (EM) approach. Allred et al (2007) and Lumpkin et al (2010) suggested that smaller and newer businesses would have a more informal approach to strategy formulation. Peterson (2020) identified that that businesses are more likely to adopt an EM style of marketing if they have high-growth strategies in high capability environments. This has connection to the suggestions from Mitzberg & Waters (1985), that small businesses would have a more entrepreneurial strategic approach. This is certainly true for the marketplace seller. The growth potential within the marketplace is substantial and the capability although low in terms of the seller's

ability to influence the environment. Is high in terms of their ability to sell products in multiple categories, in multiple geographies and via multiple selling modes (drop shipping, retailing, rebranding, B2B etc.)

Nouri & Ahmady (2018) wrote that entrepreneurs conceptualized marketing in six core themes, these six themes were examined as part of the research findings, in order to determine if the operating preference of the seller was one of an entrepreneurial style / approach to marketing. Findings showed that sellers were entrepreneurs according to this definition, however, in a few of the six elements the sellers were limited or stifled by the marketplace environment. These limitations come in the form of Market entry decisions which are very limited, innovation particularly in the macro/micro environment, customer segmentation and targeting, marketing tactics available and market developments which are wholly within the control of the marketplace provider which the seller has no influence over. The style in which the seller approached their marketing strategy although did follow the six elements in principle, in practice the strategy was formulated and executed in a very informal way. In all cases the interviewed participants did not have a written down / codified marketing strategy. It existed within the mind of the seller and decisions were made on the basis of experience, instinct and entrepreneurial business acumen.

Figure 62: Evaluation of Entrepreneurial Marketing Approach

Element	Applicable?
Marketing mix decisions (decisions regarding product, place, promotion, and price).	Yes, fully applicable. With limitations on marketing tactics and tools available.
Core marketing decisions (decisions about marketing strategy, targeting, market segmentation)	Yes, fully applicable. However, customer targeting and segmentation not possible.
Market entry decisions (decisions about resources, barriers, competition, exporting)	Entry decisions are limited to selling mode (retailing, drop shipping, manufacturing) and geography decisions.
Opportunity-related decisions (decisions about opportunity identification, evaluation, exploitation)	Yes, fully applicable.
Innovation decisions.	Innovation is limited to product innovation. Marketing, marketplace and micro/macro environment innovation is limited.
Growth decisions (market penetration, market development, product expansion, diversification, segmentation).	All relevant except market development which is nonexistent.

Source: The researcher adapted from Nouri & Ahmady (2018)

In contrast to the simpler EM model proposed by Nouri & Ahmady (2018) and Hansen et al (2019) who proposed an EM concept model, comprised of both and macro and micro-environment considerations loosely based around the Porter's value chain. In the literature this model, compared to the others, was the most formal approach to EM and the most academic. As predicted in the literature review this model had little practical applicability to the research context and in fact had no real practical use in this environment. The model conceptualizes the entrepreneur as a very large cog in the micro and macro environment and is more applicable to larger companies with more capabilities and more formal marketing approaches. Other

writers such as Morris et al (2002), linked the presence of EM to the characteristics of the macro environment. They asserted that if an organization operates in an environment with low competition, low regulatory impact, low adoption of change and innovation, then risk taking proactivity, innovation and opportunity identification may not be a dominant force and therefore entrepreneurial marketing may not be a feature in the organization. The findings showed that the selling environment was highly conducive to EM as it was highly competitive, risk taking was prominent, change and product innovation was dominant and the opportunity identification was a significant growth factor to exploit. It is this type of agile approach that the findings show the sellers took, it was very much led by product innovation, risk taking, competitive moves and decisions that made intuitively in relation to these elements rather than formal planning codified into a marketing strategy.

6.5 Customer Access and Customer Reviews & Feedback

The literature found that fake feedback was a common problem and a technique used by sellers to boost their page rankings. Wu, et al, (2020) found that the estimation of the number of fake reviews varies in the literature from 16%-33%. There have been several high-profile cases such as; big business posting negative feedbacks against rivals (Samsung posting negative feedbacks to HTC in Taiwan 2013) and The UK Advertising Standards Authority found that approx. 50million TripAdvisor posts could not be verified as real. The findings showed that some sellers experienced feedbacks that they felt to be unjust but no evidence of fake feedbacks were found, with no evidence that sellers used feedback generated by unorthodox means as a tool the achieve their search ranking goals. It was not expected to find evidence of this in the data as the sellers would have to reveal or admit to questionable approaches to boosting their feedback scores, which was unlikely. The findings did show that sellers frequently contested feedback, via the resolution procedure, that they felt was unjust and frequently had their requests to remove feedback rejected. In the case of Amazon, they have a "warts and all" approach to feedback meaning they are very reluctant to remove genuine customer reviews, nor will they contest the star rating vs the text the customer has entered (when a customer says the product is great but gives only one star). Amazon do this in order to give their customers the best information to make a buying decision and as a mechanism to ensure quality of products on their website. The policy also has added benefits as it allows the customer to raise issues with fake and counterfeit products as well as flag products that do not match the images when they arrive, thus warning others to avoid buying. Findings showed that sellers were very protective over their product quality and often questioned negative customer reviews formally. They also followed up on feedback that products were delivered damaged, as it was not the fault of the seller that the warehouse or delivery carrier mis-handled and damaged their product. Again, in the case of Amazon these reviews remain on listings as they are an accurate representation of the customer's experience. They will, however, remove negative seller feedbacks (feedback posted directly to the seller's profile page) as this is not an accurate representation of the customers experience of the seller. Instead the feedback will remain on the seller's profile but will appear as struck out and not form part of the seller statistics. It is important for a

seller to maintain a high scoring product listing as it has a positive influence on the search ranking of the product. This is known by the seller and the findings show this. The literature also shows this to be true. Melnik & Alm, (2005) and Malak et al (2021) found, that feedback and reputation have a statistically positive influence on their performance and customers' willingness to pay. Marketplaces also use this a mechanism to keep sellers abiding by the rules and to ensure a positive customer experience.

Findings showed that access to the customer in terms of customer contact details, email addresses and customer demographics etc. are not accessible to the seller. The marketplace retains all these details. Therefore, no segmentation analysis can take place in order for the seller to understand their customers, or make decisions based on their customer needs. This unique situation in customer data is in direct conflict with the traditional marketing and product development models in academic texts. Sellers wishing to make product modifications based on data analysis of customer needs, customer demographics and customer satisfaction cannot be carried out and are limited to the customer feedback posted onto the product listings. As Yang, et al (2019) discussed, this feedback is useful to making both strategic and tactical product development and design decisions but has the negative impact discussed by Melnik & Alm, (2005) and Malak et al (2021) of negative reviews and negative seller trust indicators, having a negative influence on a customer's willingness to pay.

On the whole the findings showed that the seller was not negatively impacted by their lack of access to the customer and the customer data with regards to demographics etc. nor did they express a wish to access this data for segmentation, targeting and positioning exercises. The sellers have adapted to this by using the data that is available and using this with a combination of experimentation and monitoring of customer feedback for product development decisions.

6.6 Search Ranking Optimization

The literature on search rankings by Johnson, (2014) found that 70% of consumers only selected products that appear on the first page of the search results, 20% on second page and less than 10% would go as far as the fourth page to select products. It was assumed that search rankings would be an important consideration when selling on an online marketplace. Findings of the research show that search ranking optimization is the number one most important strategy adopted by the seller community. This search result optimization trumps all other marketing strategies and corroborates the findings of Johnson (2014). Findings show that the top strategy was to first use big data from market research, to find optimum search terms for similar products. The sellers would use Helium10 or JungleScout to find similar products with the highest sales and search rankings. They would use the keywords found in these listings to optimize their own product listings. This was only possible with product listings for unique products. Any listings that were shared with other sellers may not have had this option. The sellers would aim for keyword optimization so that they appeared in the first page of the search rankings, if not in the top 10. The aim was to do this organically and not spend any money on pay per click (PPC) advertising to achieve this. Factors such as

number of positive reviews, number of customer questions answered and even customer images that were rated as "helpful" all aided the search ranking. Li et al (2016), found that product review ratings and review volumes were positive determinants of sales ranking, the performance and findings in the research backs this up. In order to boost new product ranks that did not yet have any customer feedback, the PPC advertising may be necessary to fight through the rankings of the competitor products. This was discussed by all sellers as their top strategy for achieving a page view and was the foundation for all other tactics leading to a sale.

Once the customer was enticed to view a listing after successful search ranking then the objective of the seller was to optimize listings to convert the customer from a viewer / browser to a buyer. This was achieved through achieving a positive customer experience on the listing itself. The findings show that a positive experience was achieved, by firstly ensuring that their seller status was a prime listing, meaning that the customer could get their product delivered for free the next day or even same day in some cases. Seller prime status was the number two strategy to ensuring the customer visited their pages. The third and final strategy to convert a view into a sale was quality. This came in the form of an optimized listing, quality product images, positive customer feedback and unjust feedback was always contested via the resolution procedure, customer questions answered, and clear / concise product details to allow the customer to make an informed decision. If all of these things were achieved, then these were the three key conditions that the sellers felt brought them the most success. There are limitations to this finding as this is the opinion of the sellers who participated in the research, and from the sellers who contributed advice to the seller forum. It would be recommended to further research this to provide statistics on success rate to corroborate the opinion, which is based on experience rather than on evidence.

As discussed previously, the tactic to achieve optimum search rankings for new products or products lacking customer feedback was found to be PPC marketing or Sponsored products. The seller statistics produced by Statista (2020) discussed in chapter 2.3.4 showed that 55% of sellers rated PPC as the best method of gaining a return. This was closely followed by sponsored brands and sponsored display (which is features on search headings). The data in the literature inferred that Amazon sponsorship across the three methods is mostly effective way of gaining return for a seller. The findings of this research directly reflect the literature, with PPC being the number one tactic for gaining search ranking. However, all sellers interviewed suggested that they aimed to remove PPC once the product have gotten enough positive feedback to achieve high ranking organically, without marketing support.

This marketing strategy has implications as the traditional marketing and online marketing models presented in the literature. These do not consider this nuanced route to the customer that exist in the marketplace selling environment. Most traditional and modern marketing models treat marketing messaging and communications as a way to attract and entice a customer towards a product offering. Marketeers have to fight through the "noise" of other media and messaging other marketing messaging.

The models suggest that in order to be effective then messaging should be targeted at an audience identified through market segmentation and targeted messaging. The literature shows that although strategy approaches differ in SMEs and there are no one size fits all approaches, there are key characteristics of marketing found in SMEs experiences. The key things SMEs spoke about were; Segmentation, targeting, positioning, customer acquisition, customer relationship creating / management / customer retention and competitive advantage. (Reijonen, 2010). This was not seen in the findings. Sellers did not talk about segmentation, targeting and positioning or any of the areas relating to gaining the customers attention. This is due to the unique environment where the customer is out of reach of the seller and the objective is to gain high search ranking and then to convert the customer to a buyer by winning the buy-button.

In contrast to traditional marketing communications, the most successful strategy for having a product seen and page visited by a customer is via the search ranking optimization strategy, using key word search optimization. This forms the foundation of the marketing strategy whereby other tactics can be layered on to achieve an optimum listing to convert a visit to a sale. As discussed previously, findings from Melnik & Alm, (2005) show that customers' willingness to pay has a correlation with trust indicators found on the product listings (feedback, reputation and ratings), so it is a focus of the seller that their personal trust indicators are kept to a high standard.

Findings showed that sellers "played the algorithm" to win the buy-button in line with the key algorithm components proposed by Gómez-Losada & Duch-Brown (2019). They ensured they had prime status, favorable shipping speed, optimum pricing and used PPC to gain the boost needed to skip ahead of the competition.

6.7 Marketplace Control and Influence

Several examples of marketplace provider control and influence exist in the findings. Several examples of this can also be found in the literature, some of the examples of dominance and influence found in the literature, were not seen in the findings of this research. However, some examples of influence and possible advantage were found in the research data. Discussed previously in the literature, Faherty et al in (2017) found that Amazon often encroached into markets with its own label brands, making it impossible for sellers to compete. These encroachments were found to be in certain situations as found by Belhadj et al (2020). They found that the marketplace will operate as a 'retailer' for higher volume, higher velocity, repeat sale items but acts as a marketplace for lower volume lower velocity products. This could possibly mean that the marketplace, having access to the aggregated seller data may move in on product lines that it deems to be of sufficiently high volume and velocity, for it to take over and products that do not have this target value it will leave the marketplace sellers to handle. This is win-win for the marketplace provider, having the sellers make the effort and take the risks and on the lower velocity lower volume products, whilst the marketplace handles the higher speed lower risk items. In both scenarios the marketplace gains

revenue in either a fee from the seller or profit from the customer and still maintains the selection on their website for the customer. It can be assumed that there may be a cost benefit algorithm to identifying these products from the seller aggregated data. In 2020 United States congress questioned Jeff Bezos about examples of these types of "takeovers". In response to this questioning Bezos said that such a tactic was against Amazon policy and any examples would be investigated. Several examples of these takeovers were, however, logged on file with the congressional review committee. This type of dominance was not seen in any of the three datasets (the forum, the questionnaire or the interviews) even after specific questions were asked in the questionnaire and the interviews, on this topic. Instead examples of influence rather than dominance were seen in the findings. Influence, primarily came in the form of the marketplace trying to entice the sellers onto certain seller programs or carry certain affiliations. the pressure / influence can be either direct pressure through emails and calls from the marketing teams articulating the benefits to the sellers. Pressure also comes indirectly through the setup of the marketplace. For example, on Amazon qualifying for Prime status as a seller is essential for achieving a higher search ranking, customers can also filter out non-prime listings to ensure that they only see listings that can be delivered more quickly. In order to achieve prime status then the seller must be able to achieve the next day delivery promise via their own means or they have to stock their products with the marketplace so that they can be fulfilled throughout the marketplace delivery network. Becoming a prime seller can be very difficult if the seller does not have the means to get the items to the customer by next day. Their choices of deliver partners are also restricted and the cost of shipping is much higher for next day. Using a lower cost delivery method that takes longer to save on costs is not an option for a prime seller. Findings from this research suggest that in the case of Amazon, they can fulfil an order faster and cheaper than the majority of alternative options, therefore pressure to send products to be stored at the warehouses is high and in turn incurs storage fees. Findings show that sellers did not see this pressure as a negative but did see this as a positive, however, this narrow set of options can and does stifle innovation outside the marketplace provider, and competition in the delivery network if choices of delivery service providers are not freely made by the seller.

The findings also showed that influence to join seller programs existed. The sellers discussed in the interviews that they were enticed to join seller programs on Amazon such as Launchpad, which is a new seller program that promotes new and unique products and the program called hand-made, which show cases and features products that are handmade and homemade. These programs usually carry revenue commission for the marketplace as a fee for showcasing their products. Findings showed that these programs did not see tangible results for the seller, and no quantifiable measure could be attained to qualify its benefit overall. One seller said that they saw a negative impact to their sales when joining the program and had to withdraw to regain their sales. In this case the sellers own marketing tactics were more impactful than the promotion offered by the website. The benefit to joining these programs is that the seller can withdraw from the program at any time and the decision is a two-way door.

Findings have shown that prime status can have a positive impact on search rankings, sales and conversion from viewer to buyer, however, this comes with narrow options to either use the marketplace distribution network, or invest in more costly faster shipping methods. Findings show the easiest most cost-effective solution is to use the marketplace to store and fulfil orders. Innovation and competition in the delivery market may be stifled by the narrow options available to achieve this status.

6.8 Model

As discussed in section 3.5 a study that examined grounded theory research conducted by Wiesche et al (2017) found that 42% of grounded theory research produced a model as its output. This research was also driving towards a model as its output and this section presents the conceptual model produced by the researcher, taking into consideration the findings of this research.

As far as this research shows, marketplace sellers are entrepreneurs, who use big data to drive most of their strategy and decisions, they are creative and experiment with different tactics to maximize their selling results, they actively seek out novel opportunities for products to sell and growth areas for their business. Due to the unique selling environment, sellers do not compete for share of voice as in traditional marketing, nor do they rely on marketing messaging to entice the customer in. They instead compete for prominence in search ranking to gain a customer listing glance and then they compete for the buy-button. Their strategy and tactics that execute this strategy, aim for these two things to win a sale. Winning sales generates customer feedback, ratings and leads to more organic search rankings. Customer experience is also important to gain organic search rankings. Seller status, accreditations and capabilities such as next day delivery also boost the search ranking and in turn more winning of the buy-button.

Based on the findings, the researcher has created a conceptual model for use in devising marketing strategy for online marketplace sellers. This conceptual model more closely aligns to the unique environment and circumstances a seller faces in contrast to the traditional selling environments of traditional markets.

The model is presented in figure 63 and an overview of its composition can be found in table 32.

The conceptual model is a cycle that starts with big data inputs. The data feeds decisions in all five elements of the marketing mix. These decisions formulate the marketing strategy across these five elements. In order to execute this strategy, marketing tactics are used, of which some are unique to the marketplace and some are more traditional, but all lead towards two goals and that is to optimize search rankings and to eventually win the buy-button. This buy-button win or loss then feeds back into the cycle with new data, new results of experiments, new customer feedback etc. the cycle is virtuous and continues to aid the seller growth and success. Table 32 provides an outline of each element of the conceptual model and how it is linked to the seven themes identified in chapter 5 and chapter 6.

6.8.1 Model Composition

The composition of the model that was constructed has the foundation based on the seven main themes discussed in this chapter. The model was constructed based on the findings and themes that emerged from the data. Below are the components of the model and how the model was constructed and how it flows.

- **The Marketplace**: the model sits within the macro environment labeled "the marketplace" this environment can differ from marketplace to marketplace and the features and modus operandi between marketplaces will differ. For example, certain marketing tools and features may be available on Amazon bit not on eBay or on another platform. Another example is that in the case of Amazon the marketplace provider can be a source of competition.
- **Big Data**: Big Data is an input into the first stage of the model. This data sourced in the majority from a third-party application such as Jungle Scout or Helium10. Other sources included local data from own in-house sources and marketplace data gathered from research.
- **Data > Decisions = Strategy**: this component is centered on how the sellers take their data and use it at each level of the marketing mix to make marketing mix decisions. These marketing mix decisions lead to the overarching strategy for the product or portfolio. The data collected shows that the sellers on the whole use their big data and analysis to inform their decisions or support their hunches, th4se decisions are present on each element of the marketing mix and so the model represents the types of decisions made though each one.
- **Search Ranking Tactics**: as discussed in section 6.6 search ranking optimization is key to achieving a page view or visit from the customer. There are a number of tactics that emerged from the data that achieve this search ranking optimization. As with the "Data > Decisions = Strategy" component, these tactics can be sub categorized across each element of the marketing mix. A mix of these tactics spread across the marketing mix are chosen by the seller to drive traffic to their page in hope that the page view will lead to a sale. There are a number of tactics used across the marketing mix to ensure once the customer is viewing the page then they engage with a positive expertise in order to inspire a sale leading to the seller "winning the buy button"
- **Search ranking optimization:** tactics across the marketing mix described above are used to optimize the search raking. To name a handful, these can come in the form of high search results (appearing on the first page is ideal) achieved through natural or sponsored ranking; search results with positive trust indicators such as ratings fast delivery and price and finally affiliation with trusted programs such as "customer choice" or "best seller" labels.
- **The Buy Button**: once the customer is at the point when they are viewing the page the seller aims to convert them from a viewer to a buyer. The page and the offer are optimized to ensure or inspire a sale. Positive trust indicators are used across the marketing mix to achieve this, these go beyond the tactics used for search ranking. Product summaries, pictures, videos, positive customer ratting, delivery times and prices (discounts) are all used or a mix of these are used to achieve a buy-button win. These tactics can also drive a buy-button win for listings that are shared with other sellers, factors such as price, delivery speed and customer rating can all be key to achieving the buy-button win.
- **Data, Analysis, Research and Experimentation**: the findings show that the seller community take their big data and conduct analysis, they supplement this with their own data from research on and off the marketplace. They also refine their tactics and success factors by conducting experiments. For example, they will test using pay per click (PPC) to achieve positive search ranking, then slowing remove it to see if natural search ranking can be achieved. These experiments and their results feed back into the cycle. Product selections and new big-data research is influenced by the results of this research and experimentation. For example, sellers may choose research new products based on the how confided they are at achieving a unique page listing or high search ranking based on experimentation on their current product portfolio.
- **Virtuous Cycle**: The model has a virtuous cycle where strategy, tactics and results of experimentation feed back into the cycle and inform new and future strategy, decisions, tactics across the marketing mix as well as the overall business.
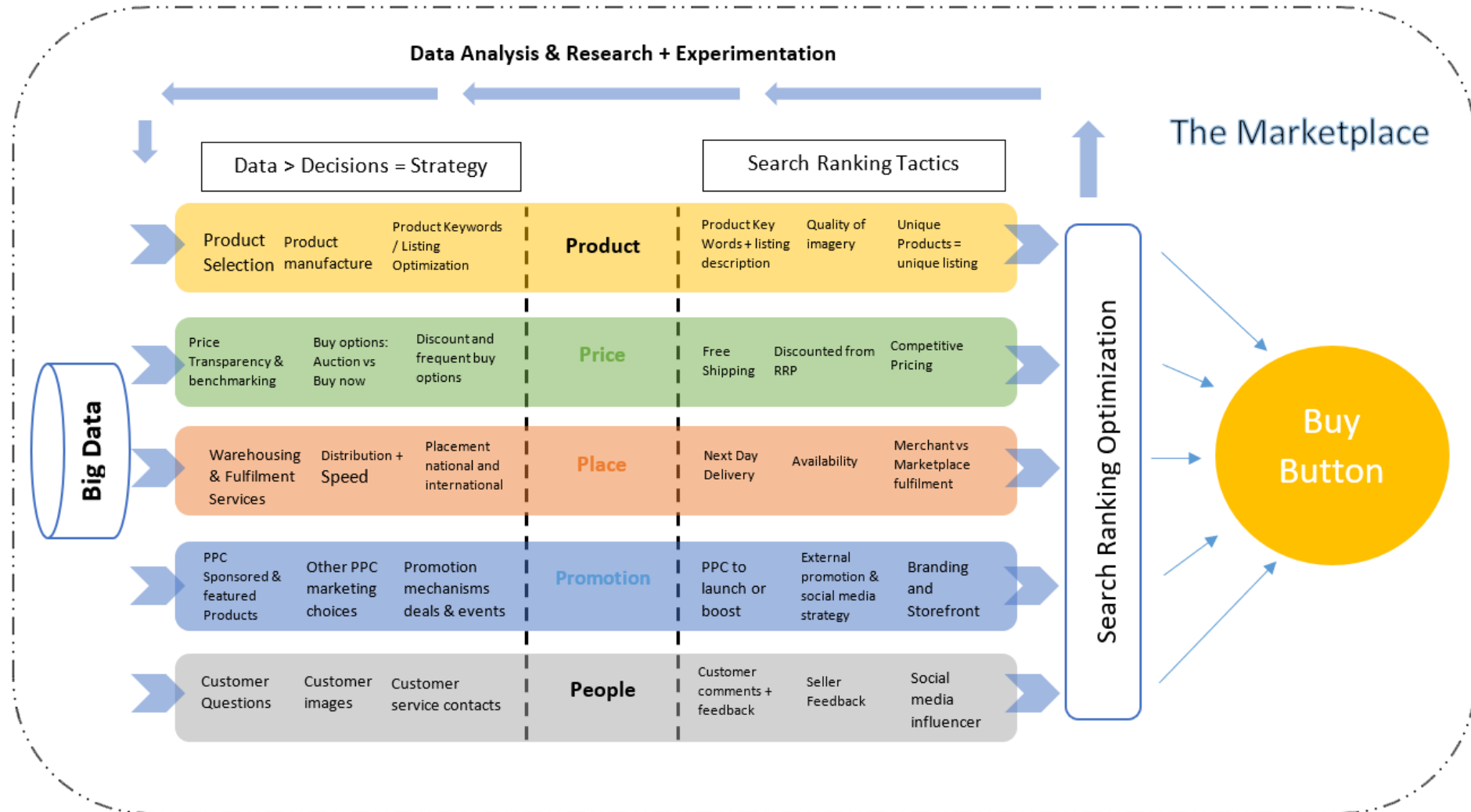
Table 32: An Overview of the Composition of the Conceptual Model

Element	Data > Decisions = Strategy	Search Raking Tactics	Linked to Theme
Big Data	Big data is subscribed to by the seller on platforms such as Helium10 and JungleScout. The data is used for research into every aspect of the marketing mix to inform strategy. With everything from product selection to keyword and product listing descriptions to pricing and margin assessment and promotional activity.	Big data is the foundation to achieving optimum search results. Experimentation is the only other supplementary source of selecting the best tactics to achieve top search results. Big data has found to be used in the justification for the majority of key decisions in the seller communities.	Theme Three: Big Data
The Marketplace	The seller has instant access to a wide base of customers so decisions should be based on having access to that instant scale. The marketplace is used for research and is the foundation data that is fed into the 3rd party big data providers platforms. This data informs all most of the decisions being made by the seller with regards to the marketing mix. Sellers also experiment using the marketplace, testing and adjusting marketing methods they go is a common tactic.	Actions of the marketplace can influence decisions being made by the seller – e.g. event days can drive customers to the website and the sellers can chose whether to optimize their listing for price to gain control of the buy button or they could choose to remain firm on price in order to take advantage of the additional customer traffic to the page listing. Decisions around listing or delisting products can be driven by the decisions made by the marketplace to to sell the product (Amazon Basics brand expansion being a good example of this)	Theme One: Small business with access to large scale Theme Seven: Marketplace control and influence
Product	Big data can drive strategy decisions around the product selection and also enables decisions around sourcing and manufacture. Findings showed that big data analysis and research was used to find "niches" the sellers think they fill and 'star' products with low competition that they feel they can move into.	Tactics to achieve positive search rankings include; optimum key words, optimum product descriptions, quality product images and videos, key product information. Positive sales then lead to more optimum sales results such as best seller status and high rankings in product category top 10s etc.	Theme Two: Marketing Mix-Product
Price	Big data research is key to setting pricing strategy. Research into the prices that products are selling for as well as selecting products that can sell with desirable margins, considering the upfront costs and selling fees. Appropriate selling modes can also be set such as buy it now or auction options. auctions can be a gamble but could yield higher prices.	Price competition achieves optimum results especially for customers who always chose the lowest price. Deals and discounting are not as important but perceived saving from RRP is a positive for a customer purchase decision.	Theme Two: Marketing Mix - Price

Element	Data > Decisions = Strategy	Search Raking Tactics	Linked to Theme
Place	Strategy surrounding fulfillment methods, marketplace storage and fulfillment vs merchant fulfillment. Seller status on shipping (i.e. Prime status on Amazon) is dependent on merchant capabilities vs capability for using marketplace services.	Free shipping and speed of delivery is the strongest tactic for optimum search results. Customers can also filter out products that do not deliver next day or for free. To achieve the strongest chance of next day delivery, fulfilment by marketplace is a strong option for those with decreased capability in the fulfilled by merchant only sphere.	Theme Two: Marketing Mix - Place
Promotion	PPC marketing, sponsored products, sponsored banners, brand campaigns are all options. Strategy surrounding what works and what does not can be researched using the big data / information available. PPC is not desirable if organic search rankings can be achieved. Cost / benefit analysis needs to be conducted to assess rewards.	PPC has been found to launch products with no sales or customer rating successfully. PPC has been found to be a good boost for a product. Discounting and promotions are a good tactic for running stock down. Branding and Banner campaigns are less effective as they are less targeted but are good for gaining traffic and brand strength in a competitive category. These two options have questionable benefits.	Theme Two: Marketing Mix - Promotion
People	Strategy is geared towards positive customer experience as customer care and customer services is out of the seller's sphere of influence. The aim is to gather positive feedback and product ratings to aid search results / rankings.	Tactics are focused on customer experience and generating the positive ratings and feedback that boots the search ranking. Social media marketing a supplement by driving traffic to a specific listing or by demonstrating a product in a commercial way.	Theme Two: Marketing Mix – People
Search Ranking Optimization	All marketing mix strategies are working towards the wider strategy to optimize search rakings.	The objective has found to be achieving first page or top 10 search results organically without the need for PPC or other marketing spending. The tactics discussed above all lead toward this aim.	Theme Six: Search Ranking optimization
Buy-Button	As above, all marketing mix strategies are working towards the wider strategy to optimize search rakings and in turn, winning the buy-button.	Once the customer is a page listing glance viewer the objective is to convert them to a buyer. This is achieved by some if not most of the tactics above. Trust, speed, quality and price being positive ways to convert a glance to a sale.	Theme Six: Search Ranking optimization
Virtuous cycle	The data and lessons learned from experimentation, sales results, buy-button wins and customer feedback are all fed back into the cycle. This then aids growth.		

Source: The Researcher

Figure 63: Conceptual Model for Marketing for Marketplace Sellers

Source: The Researcher

6.9 Summary of Discussion

This chapter has presented a discussion of findings which are based on the key themes that have emerged from the data across the three seller data sources (the forum, the questionnaire and the interviews). The findings from the themes were discussed and their implications in relation to the literature were also presented.

This analysis shows that the marketplace seller operates in a very narrow space that has highly restricted marketing options and has an environment that is not conducive to innovation or freedom when it comes to marketing strategy. Despite this, the marketplace seller has access to a vast market and an enormous number of customers looking for an infinite list of items to purchase on a regular basis. The findings show that the environment is conducive to an entrepreneurial approach to managing their business, and that business success can be attained with a very low setup and operating cost. Findings show that with regards to the marketing mix, the environment is unique in the way strategy can be formulated and that sellers have adapted to this in a number of ways to achieve positive results. Big data is not owned or controlled by the seller as in traditional businesses, instead it is provided to the seller outside the marketplace on a subscription basis. Despite this, big data is the driving force and foundation of the majority of business and marketing decisions within the seller organization.

All this was summarized in a marketing strategy model that is targeted specifically for use by the online marketplace seller.

Chapter 7. Conclusions

7.0 Introduction

This chapter summarizes the research findings as well as outlining the research contribution to knowledge. The chapter will revisit the research questions, aims and objectives and assess whether the key findings address the original questions. The chapter will present discussions on the research implications to both theory and practice, as well as its contributions to existing knowledge. Finally, this chapter outlines the limitations of this research and will provide recommendations for future research.

The results and findings of this research were generated inductively using a mixed methods research design using a grounded theory methodology. Quantitative data was gathered through a robust questionnaire gathering data from 55 individual companies selling on multiple online marketplace platforms. Secondly qualitative data was gathered from semi-structured interviews from five companies, which generated data that gained a deeper understanding of the online selling marketing and big-data environment. Thematic analysis and triangulation methods were used to identify key themes within the data. These key themes were the major contributor to generating a practical theoretical model that is applicable to the research context. This model can be utilized by the online seller when generating their internal marketing strategies with the aim of generating successful business performance. The research relevance, impact on the wider knowledge base and the consequences of the research will be discussed. Finally, the research limitations will be discussed along with recommendations for future work.

7.1 Key Findings

This section discusses the key research findings in relation to the main research questions, aims and objectives. The original research questions will be revisited in turn and a discussion will be presented to assess if the aims and objectives were achieved.

RQ1:   *To what extent does the usage of big data drive marketing strategy decisions of online marketplace sellers using online marketplace platforms?*

Aims: *To explore how the data can drive strategic decisions around, products, pricing, promotion and inventory placement.*

The findings of this research were that big data was used by sellers for almost all areas of marketing decision making. The surprise was that the data itself wasn't collected by the seller nor did the seller have access to granular data for their own customers. Seller data was available on the marketplace interface such as sales, inventory data, shipments history and some ability to dig into data and key performance indicators were also available. The data available was via subscription services provided by external companies who have been granted access to aggregated data via the marketplace data API. The sellers

were found to use this data for all of their analysis and marketing mix strategy decisions and the tactics to enable this strategy. Findings showed that the sellers would also use the data to drive their experiments and backup their hunches, which led to carrying out experimentation and taking lessons from the success or failure of these experiments. Findings also show that big data analysis using these subscription services did not require specific skills, education or knowledge and were easily used by sellers of all abilities and educational backgrounds. Findings showed that the latter end of the big data value chain type models were relevant to the seller decision making process, but the collection, preparation and presentation of the data was not. The front end of this big data value chain happens behind the scenes and is a subscription service to the seller.

RQ2: *What are the characteristics, nuances, benefits and limitations of the online marketplace selling environment.*

Aims: *To explore the marketplace selling environment and how its structure as a unique environment affects the marketing behavior of its sellers and their modus operandi.*

The findings of the research showed that the marketplace was a vast market that allowed free access to sellers for fees. The scale that presented to the sellers meant that with low funds and low capabilities, new and small businesses could launch very easily and have instant access to this scale. The environment provides high capabilities for the sellers that do not have them such as, storage and inventory, customer services, fulfilment services and most prominently the website that has a large customer base. Although the environment is easy to access and is at a large scale, the environment is highly restricted. Marketing activity is limited to fee paying services that are also provided by the marketplace, direct access to the customer and customer data is restricted, the environment is open to vast competition and they can freely occupy the same product listings if there are more than one seller for the same product. In such an environment, innovation and market innovation is limited from the seller's perspective. Product innovation and differentiation is a key strategy for competitive advantage in this type of environment.

RQ3: *To what extent are traditional marketing models appropriate to marketplace selling and do they aid marketing strategy for online marketplace sellers?*

Aims: *To explore whether popular traditional marketing models and tools are appropriate for formulating marketing strategy in this environment.*

The findings showed that the popular traditional marketing models had specific preconditions, that resulted in limitations and lack of applicability to the online marketplace environment. These limitations were linked to the assumption that the business in question has influence over the market or has influence

over the entry / method of market penetration. Models that have this market element have limited applicability. Similarly, the marketing models that have big data elements have the assumption that the user has control and influence over the collection, preparation and presentation of the data, again this was found not to be the case so they had limited applicability (Porter's Generic Strategies, Ansoff's Matrix). In contrast, the simpler models that allow for decisions around products, the BCG or the PLC models, or models that allow for analysis and decisions relating to the overall business, such as the SWOT / PEST models, have a higher degree of flexibility and applicability to the seller and selling environment. The marketing mix (5Ps) was shown to also have a high degree of applicability. Although popular, findings showed that sellers did not use them as part of their strategy making in a formal way. They were used informally (in the case of the marketing mix) or conceptually/subconsciously (in the case of the BCG and PLC models).

RQ4: *To what extent do online marketplaces dominate or have control or influence over seller behavior or have impact on seller businesses.*

Aims: *To investigate if evidence is found of media and government reports of marketplace control and influence having negative impacts on sellers. To explore the interrelationship between marketplace provider and seller*

Findings show no evidence of the kinds of marketplace dominance and control that are discussed in the media and in US government investigations. No evidence was seen of any kinds of product "take-overs" that are often highlighted in these media reports. However, there was evidence seen of influence from the marketplace. This came in the form of trying to entice sellers to participate or subscribe to seller programs to boost sales. The influence was also found in pressure to gain accreditation such as "Prime" status in the case of Amazon. This accreditation leads to higher and more favorable search ranking and in turn higher sales. The accreditation and program affiliations all come at a cost to the seller, and in some cases, sacrifices have to be made to achieve it. On the whole, findings showed that sellers had a positive experience with the marketplace and any pressure (which was low) was seen as a necessary part of the environment.

7.2 Key Learnings

There were some things that went wrong or did not go according to plan during the research process. This section will outline a number of lessons learnt throughout the research and discuss any impact that this may have had on the results and outcomes.

1. COVID19 Global Pandemic: In February / March 2020 the COVID19 global pandemic resulted in the UK being locked down between March 12th and June 6th. This pandemic had an impact on the number of shoppers buying online. As discussed in Chapter 1.3.4 (COVID19 impact on online sales) the pandemic

resulted in online sales increasing from the pre-pandemic level of 6.5% growth to 23% growth. This will have had a positive impact on the online seller's sales (all five sellers who participated in the semi-structured interviews stated that their sales had been positively impacted by the global pandemic). The seller forum data was gathered March 2018 and the questionnaire was conducted between May 2019 and October 2019, therefore the results were not impacted by the pandemic.

2. Collecting the questionnaire took time: as outlined in chapter 5.0.2 (Response rate) the responses were collected over three tranches, two were very close together in May 2019, gathered through emailing the companies directly. The third tranche was added due to the low response rate of tranche one and two (less than 3% - 38 responses). In this tranche the data collection was spread over a number of months (between May 2019 and October 2019), the data was gathered by calling and emailing individuals to ask them to participate, which took time. Therefore, all the survey data was not gathered in the same time period so the snapshot in time of the data is not consistent. It is unknown if this had any impact on the data gathered.

3. Seller contact details were removed from the Amazon.co.uk webpage: at some point in 2017 the contact details were removed from the amazon.co.uk webpage and replaced with a "contact this seller" function. This meant that no further contact details could be gathered after 2017. As such the research is limited to sellers whos contact details were collected pre-2019 only and newer sellers could not be directly contacted. eBay already had this functionality, i.e. not showing the sellers contact email address, but using a contact this seller function. As a result of this change, no further contact details could be gathered so no new sellers could be asked to participate.

4. The original target sample was not generated: As outlined in chapter 3.4.2 (Sampling), 195 questionnaire responses at a 15% response rate were required to meet the calculated representation based on a representative sampling method proposed by Cochrane (1977) in Gill & Johnson (2010, p. 128). Due to the response rate this was not met despite best efforts to generate more responses. Despite this the sample size generated was from 57 unique businesses (55 questionnaire responses, 5 interviews 3 of whom completed the questionnaire), which was much higher than the mean sample size of 36 participants found in grounded theory PhD research, based on the findings of Mason (2010) discussed in chapter 3.4.5. Theoretical and data saturation had also occurred at both stages of the research, as at each stage the data collection was ceased due to the new data not adding any new or emergent themes over the themes that were already shown in the data. This was a key test of an adequate sample size outlined by Strauss & Corbin, (1998) and Grady, (1998) discussed in chapter 3.5. Despite the sample being determined to be 'adequate' for this type of grounded theory PhD research, more data was desirable. Barriers were faced to generating more data, for example, the sample on the interview stage was limited to those willing to participate, in order to maximize the representation, more interviews were desired, but it was difficult to

obtain volunteers. The researcher would have liked to interview a more diverse mix of sellers including hand-made products, domestically produced products and some sellers with a mixture of selling outlets. The sample in the end was a 'convenience sample' and in order to determine if the sample achieved was valid, a technique proposed by Landers and Behrend (2015) was used. They recommended two criteria to explore validity of convenience samples: sample relevance and sample prototypicality. *"Sample relevance refers to the degree to which membership in the sample is defined similarly to membership in the population… Sample prototypicality refers to the degree to which a particular research case is common within a larger research paradigm"* (Landers & Behrend, 2015). As all the participants fit the original sample frame with the level of saturation being reached after 55 questionnaire responses and after 3 of the 5 interviews, the samples achieved met these two tests, therefore provide generalizable results for the sample frame population. This links back to the four validation approaches in information science research discussed in section 2.1.3 by Johnson, et al (2019). External validity is the validation category relevant to this research. This is because the outcome is generalizable to the population at large and are representative of the broader paradigm.

5. Iteration in Exploring emergent themes: As themes emerged through the interviews, the researcher would have liked to have gone back and asked follow-up questions. Specifically, follow-up questions about PPC marketing and examples of when it worked, when it did not work and in what circumstances PPC may have been necessary as a sustained tactic for one product. The researcher felt this was a theme that needed further in-depth investigation. As discussed in chapter 3.4.7 Theory building, the concept of iterative theory building was discussed. It was the aim of the researcher to produce the conceptual marketing model after the questionnaire analysis and first interview had been conducted, this would have allowed the researcher to introduce the model to the interviewees and to use their data to build upon it in an iterative way to test out the emergent themes. Due to the timing of the interviews (during the 2021 UK lockdown between January and March) the participants were very pressed for time and in most cases only agreed to meet for one hour. Introducing the model to interviewees at this point would have required a follow-up meeting (so to include their data) or an extended session (without including their data) to discuss the model and the theoretical concepts and practicalities. Asking for a 90 min session or a second meeting could have lost the researcher the participant. The iteration strategy therefore had to be dropped from the execution and the model was introduced to the participants after the research was completed. An example of a participant response to the conceptual model can be seen in appendix 12.

7.3 Contribution to Knowledge

This research makes the following original contributions to knowledge in the field of strategic marketing for the seller community in the online marketplace e-commerce domain. This selling method is characterized

by open access, entrepreneurship, data driven decision making, high competition and is a dynamic and high opportunity environment.

1. The outcome of this research is a practical strategic marketing model for the online seller community to use. This model both bridges the gap that the traditional marketing models do not cover when it comes to this specific selling environment. This model allows for strategic marketing planning starting from opportunity identification and product selection to marketing decisions across the 5 Ps of marketing, product lifecycle management and performance management. These are collected into an integrated model / framework that integrates decision making at the operational, tactical and strategic levels.

2. This original framework conceptualizes the marketing paradigm in an original way, that allows the online seller's marketing activities drive towards success, by understanding the new marketing goals of winning the buy-button and optimizing search rankings. The model focuses the seller in successfully playing the algorithms to gain favorable outcomes for the buy-button or the search ranking.

3. The proposed method in this framework allows the user to move their marketing focus away from traditional marketing norms, such as customer segmentation, targeting and positioning as well as traditional marketing communications / messaging.

4. The model provides a new way to focus the users marketing activities across the operational, tactical and strategic, into those activities that are within the control of the seller. This allows the user to overcome limitations that traditional marketing models have, in particular the lack of access to the customer, customer data and understanding of customer behavior being the biggest limitation.

5. This work provides a theoretical understanding of the marketplace seller, which was previously an under researched area. They have been found to be entrepreneurs who are big data savvy, creative, experimenters with the ability to seek out novel opportunities.

6. The research has provided an evaluation of the applicability of a number of popular marketing models to the context of selling on the online marketplace. This evaluation shows how relevant these popular marketing models, that are taught in university marketing courses, are to the modern small business selling environment. With focus on the nuances faced by the unique characteristics of this environment. Recommendations, through the proposed model, have been suggested to overcome the gaps identified.

7. The research has also shown that the literature surrounding big data and big data decision making is limited when it comes to this specific context. The findings show that big data decision making is unique in this environment and a new area of big data decision making using a data subscription (i.e. data not owned by the user) is open for new research.

This research has highlighted and discussed are a number of other implications aside from the contributions to knowledge discussed above. These implications have both academic and industry impact, these are both discussed in the next section.

7.4 Implications

In this section a discussion on the theoretical and practical implications of this research are outlined in detail below. The Key Contributions to knowledge and key findings have been discussed for the final time in this thesis. The practical implications of this research on both industry and education will now be discussed.

7.4.1 Theoretical and Academic Implications

As theoretical contributions, this research aims to add to the knowledge of how marketplace sellers marketing works, in an environment which is unique and complex context, that is far removed from that of traditional selling.

The findings of this research lead to the proposition that marketplace sellers are entrepreneurs, big data savvy, creative, with the ability to seek out novel opportunities for products to sell. They rely on big data analysis and research, obtaining market intelligence through the understanding of this data, experimentation, observation, and monitoring in the market. They are disconnected from their customers, however, despite this they focus on the factors that they are in control of, in order to impact the customer's experience such as; quality, price, trust and speed. The existence of these elements in participant sellers leads the researcher to consider them as displaying entrepreneurial marketing behaviors. Due to the selling environment and the decisions that sellers need to make vs decisions that are pre-defined, it is not 100% aligned to how the literature describes entrepreneurial marketing. But is closely aligned to the decision that the seller would make in this particular context. (Stokes, 2000; Morris et al., 2002; Nouri & Ahmady 2018; Peterson 2020). Thus, it can be said that entrepreneurial marketing is applicable to this group and carries importance as to how they operate.

Through an evaluation as to the applicability of some popular academic models to the context of marketplace selling, it can be determined than some of the models have definite applicability and are easily transposed to use as a tool in the marketplace seller's marketing tool box. The marketing models that are applicable were found to be; the 5Ps of marketing, the Boston Consulting Group model BCG, the Product Lifecycle model and the SWOT analysis. One of the biggest marketing implications for the academic world is the implication found that despite not having access to their customers, or their granular customer data for use in segmentation, targeting and understanding customer behavior, the marketplace seller is still able to use the data that is available to them for marketing purposes. They can do this continuously, with high success, without having any contact with their end customers. Selling / marketing decisions are not

impeded by lack of direct marketing and direct communication to customers. Product development and innovation is also not stifled by the lack of direct customer access. The environment, with regards to customer feedback, customer photos and ratings can compensate for lack of customer access and the experience provided by the marketplace is an equalizer across the seller communities, so competitive behavior is centered on product and pricing decisions. Conversely there are marketing models that are not applicable to the research context, or had limited / partial applicability. These models that have partial applicability were found to be Ansoff's Matrix, Big-Data marketing models such as the one proposed by Fan, Lau, & Zhao (2015) and Porter's Generic Strategies model. These models have less applicability due to the assumptions that the model users / businesses have some sort of control or influence over the market, in particular market innovation, market entry and market growth. All of these elements are either highly restricted or outside of the control of the seller. As this type of selling becomes more popular and businesses increasingly move onto online marketplaces it may be prudent to revisit these types of generic strategies to focus more on the capabilities of the businesses in the micro environment.

The findings show that the literature, with regards to big data and models associates with big data decision making are not at all applicable to the context of this research. With regards to the three areas of big data proposed by Miller & Mork (2013); data discovery, data integration and data exploitation, only a proportion of the data exploitation is applicable to the marketplace seller. This means that all of the literature pertaining to the first two elements, data discovery and integration become irrelevant to the seller as a business, but is applicable to the big data provider who are the ones providing the service to the wider seller community. This has an implication as the literature and the prior research has all centered-on businesses who own their own data, who can prepare it and create whatever insights that have benefits for their own businesses. In this context the data provider must provide a 'one size fits all' solution that the user communities all find value in using, this could be very difficult when the data provider has thousands of customers all wanting different data points to make decisions on. Big data service provision to a large audience is a gap in the current research.

7.4.2 Practical Implications to Industry

For practical contributions and their impact to industry, this research has aimed to create general guidelines in the form of a model for marketplace sellers to use when formulating marketing strategy, when using an online marketplace. Through examining the experience and achievements of a number of online marketplace sellers, the researcher was able to identify factors that make sellers' marketing more targeted and successful. Several recommendations for novice sellers on how focus their marketing strategy and activities, to be able to be more successful more quickly are made in this section.

Firstly, the seller has to be prepared for scale. The marketplace is a large-scale environment that has a large returning customer base. This customer base is looking for an unlimited range of products. The new seller therefore has instant access to this vast market with any type of product with not much capital and without the need for infrastructure, capabilities or experience. If the right product is selected the new seller could face instant scale and should be prepared to cope with it through all of the decisions being made, through the product selection and sourcing steps of the process. For example, the seller should make scalable decisions to ensure they can supply demand if it is sufficient. Access to growth is also easily obtained by selling across multiple geographies. On the flip side the seller should be aware of the highly competitive market and ensure that their products can remain competitive.

Secondly, Big data is key to marketing strategy. Findings showed that all key decisions were made after researching and doing analysis using the big data provided by the third-party data vendors. Decisions starting from the product selection stage of the marketing process up to the sales of the product are made using the data subscribed to. The key areas that the data is used for are in product decisions from selection to development, pricing decisions, sourcing decisions and most importantly the search raking optimization decisions such as key words and product descriptions, amongst others. Big data, as it is in traditional businesses, is now a fundamental cornerstone in the decision making and marketing process. Whilst this in traditional businesses can be an area requiring high capability and high levels of skills, this is not the case for employees and sellers and this can be achieved through experience.

Thirdly, pay per click marketing (PPC) should be used only when necessary and the seller should aim for natural / organic search rankings through all the other means of achieving this without the cost. The findings showed that all of the sellers interviewed, had experimented with PPC and all have come to the same conclusion, that it was a great strategy to boost sales, but has impact on the margins especially at scale. The experimentation has been done by many sellers, so the third recommendation is to not waste money on PPC after a product has established sales and key sales driven attributes such as; favorable reviews and ratings, positive customer pictures and favorable shipping deadlines. These positives alone could boost search ranking to exactly the same level as the PPC spend could. PPC decisions should be used in conjunction with the findings of big data analysis and experimentation, on the optimum time to remove it once a product is established. PPC is key to a successful launch of a product but not key to running a product through the mature phase of their lifecycle. Spending this money on a mature product with favorable listing attributes could be a waste of money for little return.

Fourthly, differentiation is the key to controlling the buy-button. The only strategy for not sharing the buy-button with others is differentiation. Unless the business model is to act as a retailer for branded products, then they key to owning and controlling the buy-button is to ensure the product on offer is unique and that no other seller can share the listing. PPC can drive traffic to a listing but if a customer is savvy enough to

search the listing for the other sellers' prices it could lead to a sale for a competitor. Controlling the buy-button means there is no alternative offer listed on the product page and all traffic driven to the page can be a potential convert from viewer to buyer. Making the product unique with branded packaging / repackaging, bundling and genuinely unique products are a few ways of achieving this. This is where the seller has full ownership and control of the product listing, description, content and photographs displayed to the customers and competition is moved to the search optimization sphere rather than competing directly on price etc.

Finally, decisions made by the new seller should account for the threats faced. The seller should know that their business model is viable if the fee structure or storage restrictions imposed by the marketplace are changed. For seller's paying listing fees, commission, PPC marketing, storage fees and fulfilment fees, a small change of fee structure across each fee could be very impactful on the seller's business as could a change in storage allowances. Decisions therefore, should not be wholly based on the status quo and contingency plans should be in place for such occurrences.

7.5 Impact, Relevance and Consequences

This research gives a generalized summary of the insights into the experience of the marketplace seller, with regards to their experience in relation to the literature in the areas of big data, marketing strategy and online marketplace retailing, with some assertions made about the seller's entrepreneurial operating style. This research has led to a presentation of a new academic model for use when formulating marketing strategy in this narrow context. This research does not directly challenge the validity of the traditional marketing literature and its relevance in the modern selling environment, but does examine its applicability of the traditional models in the experience of the online marketplace seller. The research has validated that some of the models have stood the test of time, but also raised questions that other models have not and do not have scalable applicability to this ever more popular way of selling. Even the dedicated online marketing models fail to capture the nuances of this selling method, even though it is one of the easiest to enter into, in terms of capability and cost, and is becoming more popular each year. There are also implications to the wider field of big data research. Current literature is focused on capability to collect, store, clean, analyze and present big data for analysis and decision making, but the research context has shown that the front end of this big data value chain is taken care of by a third-party on behalf of the seller and sold to them as a service. If this is to be a growing trend of big data companies providing solutions that retailers can purchase then the academic research on this type of big data value chain becomes less relevant and the output of the big data value chain i.e. the decision-making proportion becomes more relevant to the practicalities within industry.

7.6 Limitations of this Research

Although extensive research has been presented in this body of work, there are some limitations that can be seen in this research. The limitations are discussed in his section.

The research was conducted on a small sample of marketplace sellers in the UK during the period 2019-2021. The participants on the whole used Amazon UK website as a means of selling and primarily used JungleScout and Helium10 as a big data source. As a result of this narrow research sample the findings may not be wholly generalized across the whole population and could have differing implications on sellers who use other platforms. Sales during the COVID19 lockdown were positively impacted for the research participants and therefore, could have led to more positive experiences, for example the finding where discounting was not seen as a prominent pricing / promotional strategy, this could have been because there was no need to discount in market with an abundance of product demand from customers.

The participants of the research mainly sold products that were manufactured in China and shipped directly to the UK and was their sole method of operation. Additionally, only one in-depth interview conducted with a seller who sold branded products sourced in local markets, with no interviews done with larger sellers who have much larger retail operations. This limits the findings to the experiences of sellers who source from China directly to the marketplace facilities. Companies who have differing modes of operation or have differing infrastructure and capabilities, therefore, may make different marketing strategy decisions, or have access to their own big data from their other retail customers to base marketing decisions on.

From the perspective of grounded theory, it could be seen by some hardline grounded theorists that conducting a literature review could be seen as a research limitation. Conducting a literature review and the bringing together of the current theory could introduce researcher bias, and can direct the researcher, potentially having influence over the research questions, the research design and the overall direction of the research itself. This is something that is conflicting with the fundamental principles of grounded theory. (Glaser & Strauss, 2009) The rationale for the literature review, was to fully understand the landscape and to ensure that the research had foundation, justification and did not duplicate already existing research. The researcher's aim was to further the body of knowledge in the field, in order to achieve this, the landscape has to be determined. The literature review also ensured that the researcher remained focused in terms of the research, otherwise the research could have been very nebulous and could have headed towards outcomes that had no theoretical merits or contributions to knowledge. This is in line with an ever-increasing view of writers in grounded theory research (Giles, et al., 2013) that literature reviews aid research rigor and academic / theoretical sensitivity.

Finally, as discussed in the learning chapter 8.2, it was difficult to generate participants for the research at the questionnaire and interview stages, therefore, the research sample was one of convenience. This convenience sample could have excluded the experiences of certain groups of sellers who have strategies

that they did not want to be generally known and results, therefore could be skewed towards those strategies that are widely known and common practice. This notion is known as 'non-response' bias discussed by Rea & Parker, (2014).

7.7 Recommendations for Future Work

This research has enhanced the knowledge of big data marketing for online marketplace selling, however, there is still much more that can be done and can be researched. This section will outline recommendations for future work, particularly focusing on the limitations outlined in the previous section.

This research was conducted in the UK at a time when online purchasing and home delivery saw a boom due to the global pandemic. Future studies could look at this during differing periods in order to get a "baseline" outside of a boom period, to see if differing results are seen. The research could also be expanded to look at selling in different geographies for example, it will be good to get an understanding of the seller experience outside Europe, in countries such as Australia, United States of America and India. As these geographies do not benefit from trade across many geographies such as the access that the UK seller has to the European Union countries.

Further investigation could also include an evaluation of financial results pertaining to different marketing strategies, for example return on investment or impact on sales numbers were not validated with numerical data-points during this research. It would be good to validate some of the anecdotal evidence gathered in the interviews with some financial or key performance indicator (KPI) data, to give more numerical backing to the assertions made by the participant sellers.

In a similar vein, more research is also needed on the perceptions of the sellers about search rankings and the effectiveness of PPC marketing and branding activity. Sellers discussed optimization of search rankings, but their assertions were not quantified with objective measures to validate the impact of their strategy. It would be good to measure the impact of each search ranking strategy, to quantify the most effective and to see if the strategies are generalizable across differing product categories.

Finally, as discussed previously, big data provision in the research context has been found to be a service provided by a third-party company. It is recommended that future research consider the impact of this provision sitting outside of the company in question. In particular, whether subscription service, one size fits all solution using aggregated data has the same impact on business performance as companies who own their own big data, their own data infrastructure and data strategy. If this is to be a future trend then more research is required to understand the implications.

7.8 Reflections

This research raised some valuable insights from a marketing perspective and its contribution to knowledge has been the model, for use when considering marketing strategy in the context of online marketplace selling. Upon starting this research as a naïve junior researcher, the false assumption that the participant pool for this research would be vast and a great deal of data could be generated from the seller population. It was anticipated that over 300 sellers out of over 1,900 of the contact details collected would participate in the research. In fact, this was not the case and it was very difficult to generate a large enough sample to draw conclusions from. Generating a large enough sample for the research was very time consuming and it was felt that this was time wasted. I may have been more prudent to either collect more and do deeper analysis into the forum data and then supplement this with interviews, or to concentrate on doing more interviews to draw out more data from the interviewee's experiences. In hindsight, more questions could have been asked to the sellers specifically on the traditional marketing models. For example, specific questions about differentiation strategy or strategy surrounding "star" and "cash cow" products, could have been asked to assert whether models such as Ansoff's matrix or the BCG model are applicable. This way the data would have had direct conclusion to whether the model was relevant. Instead an interpretation / evaluation was made using the data available. There were many times, particularly when writing the discussion section (Chapter 6) that thoughts on "*I wish I would have asked…*" came into the researcher's mind. During the interviews, it was also felt that some of the time the interviewers gave to answers, they over-explained how marketplace works and how they gain benefits from selling on the marketplace. It would have been better if ahead of the interview it was explained that the researcher had a good level of knowledge on how the marketplace worked, then the focus could have been solely on their marketing experience and insights rather than explaining the background and the context. In hindsight there were many opportunities missed for probing into anecdotes to link to the models and literature, rather than being left with linking the data to the phenomena seen in the literature. Finally, data points to back up anecdotes were needed to quantify benefits and assertions, more time with the seller or asking for follow-up quantifications could have achieved this, if the seller was willing to provide those KPIs.

Word count: 79,769

References

- Adshead, A., 2014. *Data set to grow 10-fold by 2020 as internet of things takes off.* [Online]
  Available at: http://www.computerweekly.com/news/2240217788/Data-set-to-grow-10-fold-by-2020-as-internet-of-things-takes-off
  [Accessed 28 03 2017].

- Agrawal, D., 2014. Analytics based decision making. *Journal of Indian Business Research,* 6(4), pp. 332-340.

- Akter, S. & Wamba, S., 2016. Big data analytics in E-commerce: A systematic review and agenda for future research. *Electronic Markets,* 26(2), pp. 173-194.

- Akter, S. et al., 2016. How to improve firm performance using big data analytics capability and business strategy alignment?. *International Journal of Production Economics,* Volume 182, pp. 113-131.

- Allred, A., Addams, H. & Chakraborty, G., 2007. Is Informal planning the key to the success of the Inc. 500?. *Journal of Small Business Strategy,* 18(1), pp. 95-104.

- Amazon Inc, 2019. *Inside the Amazon Clicks & Mortar shop in Sheffield.* [Online]
  Available at: https://blog.aboutamazon.co.uk/supporting-small-businesses/inside-the-amazon-clicks-mortar-shop-in-sheffield
  [Accessed 08 August 2020].

- Amazon.com, 2017. *Sellers on Amazon are thriving.* [Online]
  Available at: https://www.aboutamazon.eu/sellers-on-amazon-are-thriving-fulfillment-by-amazon-fba-delivered-more-than-2-billion-items-for-sellers-worldwide-in-2016
  [Accessed 2020 August 2020].

- Aremu, M. & Bamiduro, J. A., 2012. Marketing Mix Practice as a Determinant of Entrepreneurial Business Performance. *International Journal of Business and Management,* 7(1), pp. 205-213.

- Armstrong, J. & Overton, T., 1977. Estimating nonresponse bias in mail surveys. *Journal of Marketing Research,* 14(3), pp. 396-402.

- Assuncao, M. et al., 2015. Big Data computing and clouds: Trends and future directions. *Journal of Parallel and Distributed Computing,* 79(1), pp. 3-15.

- Bajpai, N., 2017. *Business Research Methods.* 2nd ed. India: Pearson.

- Bekmamedova, N. & Shanks, G., 2014. *Social Media Analytics and Business Value: A Theoretical Framework and Case Study.* 7th Hawaii International Conference on System Science, IEEE Computer Society, p. 3728–3737.

- Belhadj, N., Laussel, D. & Resende, J., 2020. Marketplace or reselling? A signalling model. *Information Economics and Policy,* Volume 50.

- Bell, E. & Bryman, A., 2007. The Ethics of Management Research: An Exploratory Content Analysis. *British Journal of Management,* 18(1), pp. 63-77.

- Bello-Orgaz, Jung & Camacho, 2016. Social big data: Recent achievements and new challenges. *Information Fusion,* 28(1), pp. 45-59.

- Bergman, M., 2008. *Advances in mixed methods research theories and applications.* Los Angeles, London: SAGE.

- Berthene, A., 2019. *Amazon Sellers Feel the Pressure of Pricing.* [Online]
  Available at: https://www.digitalcommerce360.com/2019/08/05/amazon-sellers-feel-the-pressure-of-pricing/
  [Accessed 23 08 2020].

- Bhadani, R. & Kotkar, S., 2015. Big Data: An Innovative way to Gain Competitive Advantage Through Converting Data into Knowledge. *International Journal of Advanced Research in Computer Science,* 6(1), pp. 168-170.

- Bloor, M. & Wood, F., 2006. Theoretical saturation. In: *Keywords in Qualitative Methods.* London: SAGE Publications Ltd, pp. 165-166.

- Bringer, J., 2016. Using Computer-Assisted Qualitative Data Analysis Software to Develop a Grounded Theory Project. *Field Methods,* 18(3), pp. 245-266.

- Bryant, A. & Charmaz, K., 2007. *The SAGE handbook of grounded theory.* London: SAGE Publications Ltd.

- Bryant, C., Bryant, A. & Charmaz, K., 2007. *The SAGE handbook of grounded theory.* London: SAGE.

- Cadwalladr, C. & Graham-Harrison, E., 2018. Revealed: 50 million Facebook profiles harvested for Cambridge Analytica in major data breach. *The Guardian*, 17 March, p. 22.

- Chaudhuri, N., Gupta, G., Vamsi, V. & Bose, I., 2021. On the platform but will they buy? Predicting customers' purchase behavior using deep learning.. *Decision Support Systems,* pp. 149-159.

- Chen, M. & Liu, S. M. Y., 2014. Big data: A survey. *Mobile Networks and Applications,* 19(2), pp. 171-209.

- Chen, N. & Tsai, H. T., 2019. Steering via Algorithmic Recommendations. *Available at SSRN 3500407.*

- Chiu, H. Y.-T., Mao, X. & Wang, J.-N., 2021. An Empirical Study of Holiday Season Discounts: A Comparison Between Third-Party Marketplace Sellers and Fulfilled by Walmart Sellers. *SAGE Open,* 11(2), pp. 1-11.

- Chopra, A. & Madan, S., 2015. Big Data: A Trouble or A Real Solution?. *International Journal of Computer Science Issues (IJCSI),* 12(2), pp. 221-229.

- CIPD, 2020. *SWOT Analysis.* [Online]
  Available at: https://www.cipd.co.uk/knowledge/strategy/organisational-development/swot-analysis-

factsheet

[Accessed 16 09 2020].

- Cisco, 2017. *The Zettabyte Era: Trends and Analysis,* San Jose, CA, USA: Cisco.

- Collis, J. & Hussey, R., 2013. *Business research: A practical guide for undergraduate and postgraduate students.* 4th ed. Basingstoke, UK: Palgrave macmillan.

- Constantinides, E., 2006. The Marketing Mix Revisited: Towards the 21st Century Marketing. *Journal of Marketing Management,* 33(3), pp. 407-438.

- Corbin, J. & Strauss, A. L., 2005. *Basics of qualitative research : Techniques and procedures for developing grounded theory.* 4th ed. London: SAGE Publications.

- Creswell, J., 2003. *Research design : qualitative, quantitative, and mixed methods approaches.* 2nd ed. California; London: SAGE.

- Crotty, M., 1998. *The foundations of social research: meaning and perspective in the research process.* London, Califonia: SAGE.

- Dahiya, R., Le, S., Ring, J. K. & Watson, K., 2021. Big data analytics and competitive advantage: the strategic role of firm-specific knowledge. *Journal of Strategy and Management,* pp. 1-19.

- Davenport, T., 2013. *Analytics 3.0.* [Online]
Available at: https://hbr.org/2013/12/analytics-30
[Accessed 09 August 2020].

- Davenport, T., Barth, P. & Bean, R., 2012. How Big Data Is Different. *MIT Sloan Management Review,* 54(1), pp. 43-46.

- Dawson, C., 2017. *The number of sellers registered on Amazon and eBay.* [Online]
Available at: https://tamebay.com/2017/09/uk-sellers-registered-amazon-ebay.html
[Accessed 30 08 2020].

- De Luca, L. M., Herhausen, D., Troilo, G. & Rossi, A., 2021. How and when do big data investments pay off? The role of marketing affordances and service innovation. *Journal of the Academy of Marketing Science,* 49(4), pp. 790-810.

- Dezi, L., Santoro, G., Gabteni, H. & Pellicelli, A., 2018. The role of big data in shaping ambidextrousbusiness process management: case studies from the service industry. *Business Process ManagementJournal,* 24(5), pp. 1163-1175.

- Dirusso, D., Mudambi, S. & Schuff, D., 2011. Determinants of prices in an online marketplace. *Journal of Product & Brand Management,* 20(5), pp. 420-428.

- Ducange, P., Pecori, R. & Mezzina, P. A., 2018. A glimpse on big data analytics in the framework of marketing strategies. *Soft Computing,* Volume 22, p. 325–342.

- Ebay Inc, 2018. *eBay partners with Wolverhampton to transform local retail.* [Online]
Available at: https://www.ebayinc.com/stories/press-room/uk/ebay-partners-with-wolverhampton-to-

transform-local-retail/

[Accessed 08 August 2020].

- Elgendy, N. & Elragal, A., 2016. Big Data Analytics in Support of the Decision Making Process. *Procedia Computer Science,* 100(1), pp. 1071-1084.

- European Commission, 2003. *What is an SME.* [Online]
Available at: http://ec.europa.eu/growth/smes/business-friendly-environment/sme-definition_en
[Accessed 19 11 2017].

- Faherty, E., Huang, K. & Land, R., 2017. *The Amazon Monopoly: Is Amazon's Private Label Business the Tipping Point?.* Munich, Munich Personal RePEc Archive.

- Fan, S., Lau, R. Y. K. & Zhao, J. L., 2015. Demystifying Big Data Analytics for Business Intelligence Through the Lens of Marketing Mix. *Big Data Research,* 2(1), pp. 28-32.

- Fan, S., Lau, R. & Zhao, J., 2015. Demystifying Big Data Analytics for Business Intelligence Through the Lens of Marketing Mix. *Big Data Research,* 2(1), pp. 28-32.

- Fedorenko, S., 2019. *43% of Etsy UK sellers have a full time creative career: Etsy Global Seller Census Report.* [Online]
Available at: https://tamebay.com/2019/05/etsy-global-seller-census-report.html
[Accessed 30 08 2020].

- Ferraris, A., Mazzoleni, A., Devalle, A. & Couturier, J., 2019. Big data analytics capabilities and knowledge management: impact on firm performance. *Management Decision,* 57(8), pp. 1923-1936.

- Flick, U., Kardorff, E. & Steinke, I., 2004. *A companion to qualitative research.* London: SAGE.

- Fosso Wamba, S. et al., 2015. How 'big data' can make big impact: Findings from a systematic review and a longitudinal case study. *International Journal of Production Economics,* Volume 165, pp. 234-246.

- Fowler, F. J., 2014. *Survey Reserch Methods.* 5th ed. London: SAGE.

- Galán-García, J., Merino, S., Martínez, J. & De Aguilera, M., 2017. Genetic and Algebraic Algorithms for Classifying the Items of a Likert Questionnaire. *Mathematics in Computer Science,* 11(1), pp. 49-59.

- Gandomi, A. & Haider, M., 2015. Beyond the hype: Big data concepts, methods, and analytics. *International Journal of Information Management,* 35(2), pp. 137-144.

- Gartner, Inc, 2017. *Gartner IT Glossery: What is Big Data?.* [Online]
Available at: https://research.gartner.com/definition-whatis-big-data?resId=3002918&srcId=1-8163325102
[Accessed 25 03 2017].

- George, B., Walker, R. M. & Monster, J., 2019. Does strategic planning improve organizational performance? A meta-analysis. *Public Administration Review,* 79(6), pp. 810-819.

- Ghasemaghaei, M. & Calic, G., 2019. Does big data enhance firm innovation competency? The mediating role of data-driven insights. *Journal of Business Research,* Volume 104, pp. 69-84.

- Giles, T., King, L. & de Lacey, S., 2013. The Timing of the Literature Review in Grounded Theory Research. *Advances in Nursing Science,* 36(2), pp. 29-40.

- Gilligan, C. & Wilson, R., 2003. *Strategic Marketing Planning.* Oxford: Butterworth Heineman.

- Gill, J. & Johnson, J., 2010. *Research methods for managers.* 4th ed. London: SAGE.

- Glaser, B. G., 1965. The Constant Comparative Method of Qualitative Analysis. *Social Problems,* 12(4), p. 436–445.

- Glaser, B. G. & Strauss, A. L., 2009. *The Discovery of Grounded Theory : Strategies for Qualitative Research.* 1st ed. New York: Aldine Transaction.

- Goi, C. L., 2009. A Review of Marketing Mix: 4Ps or More?. *International Journal of Marketing Studies,* 1(2).

- Gomera, S., Chinyamurindi, W. T. & Mishi, S., 2018. Relationship between strategic planning and financial performance: The case of small, micro- and medium-scale businesses in the Buffalo City Metropolitan. *South African Journal of Economic and Management Sciences,* 21(1), pp. 1-9.

- Gómez-Losada, Á. & Duch-Brown, N., 2019. Competing for Amazon's Buy Box: A Machine-Learning Approach. In: Abramowicz W., Corchuelo R. (eds) Business Information Systems Workshops. BIS 2019. *Lecture Notes in Business Information Processing,* 373(1), pp. 445-456.

- Gomez-Uribe, C. A. & Hunt, N., 2015. The netflix recommender system: Algorithms, business value, and innovation. *ACM Transactions on Management Information Systems (TMIS),* 6(4), pp. 1-19.

- Google Inc., 2017. *Google Scholar: Top publications - Marketing.* [Online]
  Available at: https://scholar.google.com/citations?view_op=top_venues&hl=en&vq=bus_marketing
  [Accessed 04 04 2017].

- Google Inc., 2017. *https://scholar.google.co.uk/intl/en/scholar/metrics.html#metrics.* [Online]
  Available at: https://scholar.google.co.uk/intl/en/scholar/metrics.html#metrics
  [Accessed 04 04 2017].

- Grady, M., 1998. *Qualitative and Action Research: A Practitioner Handbook.* Bloomington: Delta Kappa Educational Foundation.

- Greenfield, T. & Greener, S., 2016. *Research methods for postgraduates.* New York: Wiley.

- Grundy, T., 2006. Rethinking and reinventing Michael Porter's five forces model. *Strategic Change,* 15(5), pp. 213-229.

- Gutierrez, F., 2020. Cloud and Big Data. In: *Spring Cloud Data Flow.* Albuquerque, NM, USA: Berkeley: Apress, p. 308.

- Hage, J., 1972. *Techniques and problems of theory construction in sociology.* New York USA: John Wiley & Sons.

- Hansen, D., Deacon, J., Pascal, V. & Sethna, Z., 2019. The future is in the past: A framework for the Marketing-Entrepreneurship Interface (MEI). *Journal of Business Research,* 113(1), pp. 198-208.

- Hashem, Y., Anuar, M. G. & Khan, U., 2015. The rise of "big data" on cloud computing: Review and open research issues. *Information Systems,* 47(1), pp. 98-115.

- Henderson, R. & Clark, K., 1990. Architectural Innovation: The Reconfiguration of Existing Product Technologies and the Failure of Established Firms. *Administrative Science Quarterly,* 35(1), pp. 9-30.

- Huang, G., Huang, G.-B., Song, S. & You, K., 2015. Trends in extreme learning machines: A review. *The Official Journal of the International Neural Network Society,* 61(1), pp. 32-48.

- IAB UK; PwC, 2019. *Digital Adspend Study,* London: ITAB UK.

- IBM Corp, 2015. *Why only one of the 5 Vs of big data really matters.* [Online]
  Available at: http://www.ibmbigdatahub.com/blog/why-only-one-5-vs-big-data-really-matters
  [Accessed 04 04 2017].

- IBM Corporation, 2012. *Analytics: The real-world use of big data,* USA: IBM Corporation.

- IBM, 2018. *Extracting business value from the 4 V's of big data.* [Online]
  Available at: https://www.ibmbigdatahub.com/infographic/extracting-business-value-4-vs-big-data
  [Accessed 14 09 2020].

- Inside Big-Data, 2018. *How Netflix Uses Big Data to Drive Success.* [Online]
  Available at: https://insidebigdata.com/2018/01/20/netflix-uses-big-data-drive-success/
  [Accessed 14 09 2020].

- International Data Corporation, 2014. *The Digital Universe of Opportunities: Rich Data and the Increasing Value of the Internet of Things.* [Online]
  Available at: https://www.emc.com/leadership/digital-universe/2014iview/executive-summary.htm
  [Accessed 08 August 2020].

- Jakob, A., 2001. On the Triangulation of Quantitative and Qualitative Data in Typological Social Research: Reflections on a Typology of Conceptualizing 'Uncertainty' in the Context of Employment Biographies, Forum. *Qualitative Social Research,* 2(1), pp. 1-30.

- Janssen, M., Van-der-Voort, H. & Wahyudi, A., 2017. Factors influencing big data decision-making quality. *Journal of Business Research,* Volume 70, pp. 338-345.

- Jick, T., 1979. Mixing Qualitative and Quantitative Methods: Triangulation in Action. *Administrative Science Quarterly,* 24(4), pp. 602-611.

- Jin & Wah, C., 2015. Significance and Challenges of Big Data Research. *Big Data Research,* 2(2), pp. 59-64.

- Johnson, L., 2014. *Why It's So Hard for Brands to Get Noticed on Amazon.* [Online]
  Available at: http://www.adweek.com/digital/why-its-so-hard-brands-get-noticed-amazon-161429
  [Accessed 16 09 2020].

- Johnson, P. & Duberley, J., 2000. *Understanding Management Research : An Introduction to Epistemology.* London: SAGE.

- Johnson, S. L., Gray, P. & Sarker, S., 2019. Revisiting IS research practice in the era of big data. *Information and Organization,* 29(1), pp. 41-56.

- JungleScout, 2020. *The State of the Amazon Seller.* [Online]
  Available at: https://www.junglescout.com/amazon-seller-report/
  [Accessed 22 09 2020].

- Kaisler, S., Armour, F., Espinosa, J. & Money, W., 2013. *Big data: issues and challenges moving forward, in: 6th Hawaii International Conference on System Sciences, (HICSS).* Hawaii, IEEE.

- Kar, A. K. & Dwivedi, Y. K., 2020. Theory building with big data-driven research–Moving away from the "What" towards the "Why". International Journal of Information Management. *International Journal of Information Management,* Volume 54, pp. 1-21.

- Kim, E., Nam, D. I. & Stimpert, J. L., 2004. The applicability of Porter's generic strategies in the digital age: assumptions, conjectures, and suggestions. *Journal of management,* 30(5), pp. 569-589.

- King, N. & Brooks, J., 2017. *Template Analysis for Business and Management Students.* London: SAGE Publications Ltd.

- Korobeynikov, T. S., 2020. *Consumer Online Dispute Resolution. In International Scientific Conference" Far East Con"(ISCFEC 2020) (pp. 3323-3330).* s.l., Atlantis Press.

- Kotler, P. & Keller, K., 2019. *Marketing Management: European Edition.* 15th ed. Europe: Pearson Education.

- Kumar, A., Sikdar, P. & Saha, R., 2021. Seller experience assessment in online marketplace: a scale development study. *Benchmarking : an International Journal,* 28(7), p. 2315–2342.

- Landers, R. & Behrend, T., 2015. An Inconvenient Truth: Arbitrary Distinctions Between Organizational, Mechanical Turk, and Other Convenience Samples.. *Industrial and Organizational Psychology,* 8(2), pp. 142-164.

- Lempert, L., 2007. Asking Questions of the Data: Memo Writing in the Grounded Theory Tradition. In: *Charmaz, K; Bryant, A. The SAGE Handbook of Grounded Theory.* London: (SAGE Publications Ltd 2007), pp. 245-264.

- Li, J., Tao, F., Cheng, Y. & Zhao, L., 2015. Big Data in product lifecycle management. *The International Journal of Advanced Manufacturing Technology,* 81(1), pp. 667-684.

- Lin, C. & Kim, T., 2016. Predicting user response to sponsored advertising on social media viathe technology acceptance model. *Computers in Human Behavior,* Volume 64, pp. 710-718.

- Locke, K., 1996. Rewriting the discovery of Grounded Theory after 25 years?. *Journal of Management Inquiry,* 53(3), pp. 239-245.

- Locke, K., 2001. *Grounded theory in management research.* London: Sage Publications..

- Lopez, M., 2016. *How eBay Uses Big Data and Machine Learning to Drive Business Value.* [Online]
  Available at: https://www.forbes.com/sites/maribellopez/2016/10/04/how-ebay-uses-big-data-and-

machine-learning-to-drive-business-value/#198fc5731f35
[Accessed 15 09 2020].

- Lou, C. & Yuan, S., 2019. Influencer marketing: how message value and credibility affect consumer trust of branded content on social media. *Journal of Interactive Advertising,* 19(1), pp. 58-73.

- Lovelace, R., Birkin, M., Cross, P. & Clarke, M., 2016. From Big Noise to Big Data: Toward the Verification of Large Data sets for Understanding Regional Retail Flows. *Geographical Analysis,* 48(1), pp. 59-81.

- Lukosius, V. & Hyman, M., 2019. MARKETING THEORY AND BIG DATA. *The Journal of Developing Areas,* 53(4), pp. 217-228.

- Lumpkin, G., McKelvie, A., Gras, D. & Nason, R., 2010. Is strategy different for very small and new firms?. *Journal of Small Business Strategy,* 21(2), pp. 1-26.

- MacDonald, G., 2019. *Notonthehighstreet.* [Online]
Available at: https://www.retail-week.com/companies/notonthehighstreet?authent=1
[Accessed 30 08 2020].

- Madsen, D. O., 2017. Not dead yet: the rise, fall and persistence of the BCG Matrix. *Problems and Perspectives in Management,* 15(1), pp. 19-34.

- Malak, F., Ferreira, J. B., Pessoa de Queiroz Falcão, R. & Giovannini, C. J., 2021. Seller Reputation Within the B2C e-Marketplace and Impacts on Purchase Intention. *Latin American Business Review,* pp. 1-21.

- Market Pulse, 2020. *Top Amazon.co.uk Marketplace Sellers.* [Online]
Available at: https://www.marketplacepulse.com/amazon/top-amazon-uk-sellers
[Accessed 15 09 2020].

- Marketplace Pulse, 2019. *Amazon Has Three Million Active Sellers.* [Online]
Available at: https://www.marketplacepulse.com/articles/amazon-has-three-million-active-sellers
[Accessed 2020 August 2020].

- Marr, B., 2015. *BIG DATA USING SMART BIG DATA,ANALYTICS AND METRICS TO MAKE BETTER DECISIONS AND IMPROVE PERFORMANCE.* Chichester UK: Wiley.

- Marr, B., 2016. *Big Data in Practice: How 45 Successful Companies Used Big Data Analytics to Deliver Extraordinary Results.* Chichester,West Sussex, UK: John Wiley & Sons.

- Marr, B., 2018. *The Amazing Ways Tesla Is Using Artificial Intelligence And Big Data.* [Online]
Available at: https://bernardmarr.com/default.asp?contentID=1251
[Accessed 09 August 2020].

- Mazzei, M. J. & Noble, D., 2017. Big data dreams: A framework for corporate strategy. *Business Horizons,* pp. 1-10.

- McDonald, M., 2008. *Malcolm McDonald on marketing planning understanding marketing plans and strategy.* London: Kogan Page.

- McKinsey Global Institute, 2011. *Big data: The next frontier for innovation, competition, and productivity,* USA: McKinsey & Company.

- Melnik, M. & Alm, J., 2005. Seller Reputation, Information Signals, and Prices for Heterogeneous Coins on eBay. *Southern Economic Journal,* 72(2), pp. 305-328.

- Miller, H. & Mork, P., 2013. From Data to Decisions: A Value Chain for Big Data. *IT Professional,* 15(1), pp. 57-59.

- Mintel, 2016. *Online Retailing - UK - July 2016,* London: Mintel Group Ltd.

- Mintel, 2019. *Online Retailing - UK - July 2019,* London: Mintel Group Ltd..

- Mintel, 2019. *The Amazon Effect - Nine in Ten Brits Shop on Amazon.* [Online]
Available at: https://www.mintel.com/press-centre/retail-press-centre/the-amazon-effect-nine-in-ten-brits-shop-on-amazon
[Accessed 2021 06 20].

- Mintel, 2020. *Online Retailing - UK - August 2020,* London: Mintel Group Ltd.

- Mintzberg, H. & Waters, J. A., 1985. Of Strategies, Deliberate and Emergent. *Strategic Management Journal,* 6(3), pp. 257-272.

- Mohajan, H., 2017. An analysis on BCG Growth sharing matrix. *Noble International Journal of Business and Management Research,* 2(1), pp. 1-6.

- Mohri, M., Rostamizadeh, A. & Talwalkar, A., 2018. *Foundations of Machine Learning.* 2nd ed. Cambridge, MA USA: The MIT Press, Cambridge, MA, 2018, 504 pp.

- Morris, M. H., Schindehutte, M. & LaForge, R. W., 2002. Entrepreneurial marketing: a construct for integrating emerging entrepreneurship and marketing perspectives. *Journal of Marketing Theory and Practice,* 10(4), pp. 1-19.

- Mu, J. & Zhang, J., 2021. Seller marketing capability, brand reputation, and consumer journeys on e-commerce platforms. *Journal of the Academy of Marketing Science,* pp. 1-27.

- Nouri, P. & Ahmady, A., 2018. A taxonomy of nascent entrepreneurs' marketing decisions in high-tech small businesses. *Journal of Small Business Strategy,* 28(3), pp. 69-79.

- Nunan, D. & Di Domenico, M., 2019. Rethinking the market research curriculum. *International Journal of Market Research,* 6(1), pp. 22-32.

- Office of National Statistics, 2019. *How our internet activity has influenced the way we shop: October 2019.* [Online]
Available at:
https://www.ons.gov.uk/businessindustryandtrade/retailindustry/articles/howourinternetactivityhasinfluencedthewayweshop/october2019/previous/v1#adults-aged-65-years-and-over-see-the-biggest-increase-in-online-shopping-from-2008-to-2019
[Accessed 08 August 2020].

- Office of National Statistics, 2021. *Internet sales as a percentage of total retail sales (ratio) (%).* [Online]
  Available at: https://www.ons.gov.uk/businessindustryandtrade/retailindustry/timeseries/j4mc/drsi
  [Accessed 26 06 2021].

- Office of National Statistics, 2021. *Internet sales as a percentage of total retail sales (ratio) (%).* [Online]
  Available at: https://www.ons.gov.uk/businessindustryandtrade/retailindustry/timeseries/j4mc/drsi
  [Accessed 26 June 2021].

- Peterson, M., 2020. Modeling country entrepreneurial activity to inform entrepreneurial-marketing research. *Journal of Business Research,* 113(1), pp. 105-116.

- Petticrew, M. & Roberts, H., 2005. *Systematic reviews in the social sciences : a practical guide.* Oxford: Blackwell.

- Popovic, D., 2006. Modelling the marketing of high-tech start-ups. *Journal of Targeting, Measurement and Analysis for Marketing,* 14(3), pp. 260-276.

- Porter, M., 1980. *Competitive strategy : Techniques for analyzing industries and competitors.* New York: Free Press.

- PwC, 2019. *Store closures hit record levels as restructurings drive largest net decline in testing retail climate.* [Online]
  Available at: https://www.pwc.co.uk/press-room/press-releases/store-closures-hit-record-levels.html
  [Accessed 09 August 2020].

- Rea, L. M. & Parker, R. A., 2014. *Designing and conducting survey research a comprehensive guide.* 4th ed. San Fransisco USA: Jossey-Bass.

- Reijonen, H., 2010. Do all SMEs practise same kind of marketing?. *Journal of Small Business and Enterprise Development,* 17(2), pp. 279-293.

- Retail-week.com, 2019. *eBay calls for SMEs to have bigger say on trade deals.* [Online]
  Available at: https://www.retail-week.com/technology/ebay-calls-for-smes-to-have-bigger-say-on-trade-deals/7032799.article?authent=1
  [Accessed 08 August 2020].

- Revilla, M. & Ochoa, C., 2017. Ideal and Maximum Length for a Web Survey. *International Journal of Market Research,* 59(5), p. 557–565.

- Santoso, G. J. A. & Napitupulu, T. A., 2018. FACTORS AFFECTING SELLER LOYALTY IN BUSINESS EMARKETPLACE: A CASE OF INDONESIA. *Journal of Theoretical & Applied Information Technology,* 96(1), pp. 162-171.

- Schaeffer, D. & Olson, P., 2014. Big Data Options For Small And Medium Enterprises. *The Review of Business Information Systems (Online),* 18(1), pp. 41-45.

- Schroeck, M. et al., 2012. *Analytics: The real-world use of big data. How innovative enterprises extract value from uncertain data,* New York USA: IBM Institute for Business Value.

- Servik, K., 2020. *COVID-19 contact tracing apps are coming to a phone near you. How will we know whether they work?.* [Online]
  Available at: https://www.sciencemag.org/news/2020/05/countries-around-world-are-rolling-out-contact-tracing-apps-contain-coronavirus-how
  [Accessed 09 August 2020].

- Shankar, V., Carpenter, G. S. & Krishnamurthi, L., 1999. The advantages of entry in the growth stage of the product life cycle: An empirical analysis. *Journal of Marketing Research,* 36(2), pp. 269-277.

- Shareef, M. A. et al., 2019. Social media marketing: Comparative effect of advertisement sources. *Journal of Retailing and Consumer Services,* Volume 46, pp. 46-59.

- Sheffield Hallam University, 2017. *Ethics, integrity and practice.* [Online]
  Available at: https://www.shu.ac.uk/research/ethics-integrity-and-practice
  [Accessed 02 05 2017].

- Sheth, J., 2021. New areas of research in marketing strategy, consumer behavior, and marketing analytics: the future is bright. *Journal of Marketing Theory and Practice,* 29(1), pp. 1-10.

- Smith, P. R. & Chaffey, D., 2013. *Emarketing excellence : Planning and optimizing your digital marketing (4th ed.).* London: Routledge.

- Statista Ltd, 2020. *Social media - Statistics & Facts.* [Online]
  Available at: https://www.statista.com/topics/1164/social-networks/#dossierSummary__chapter5
  [Accessed 14 09 2020].

- Statista, 2019. *Frequency of online consumers who have made a purchase based on online or social media advertisements as of January 2019 ,* https://www-statista-com.hallam.idm.oclc.org/statistics/303726/social-media-targeting-effectiveness/: Statista.

- Statista, 2020. *Amazon advertising features seen as the most valuable for return on advertising spending (ROAS) according to retail brands selling on Amazon in the United States as of December 2019.* [Online]
  Available at: https://www-statista-com.hallam.idm.oclc.org/statistics/1105050/amazon-sellers-best-roas-generating-ad-features-usa/
  [Accessed 18 09 2020].

- Statista, 2020. *Big data market size revenue forecast worldwide from 2011 to 2027.* [Online]
  Available at: https://www.statista.com/statistics/254266/global-big-data-market-forecast/
  [Accessed 01 11 2020].

- Stephens, S., Balan, C. G. & Callaghan, S., 2010. Theory and practice: the experience of marketing graduates. *Education+ Training,* 52(7), pp. 552-560.

- Stokes, D., 2000. Putting entrepreneurship into marketing: the processes of entrepreneurial marketing. *Journal of research in marketing and entrepreneurship,* 2(1), pp. 1-16.

- Strauss, A. & Corbin, J., 1998. *Basics of Qualitative Research.* Thousands Oak CA: Sage.

- Sumbal, M. et al., 2019. Value creation through big data application process management: the case of the oil and gas industry. *Journal of Knowledge Management,* 23(8), pp. 1566-1585.

- Sun, L., Lyu, G., Yu, Y. & Teo, C., 2020. Fulfillment by Amazon versus fulfillment by seller: An interpretable risk-adjusted fulfillment model. *Naval Research Logistics,* pp. 1-19.

- Taylor, S., Bogdan, R. & DeVault, M., 2016. *Introduction to qualitative research methods : a guidebook and resource.* 4th ed. Online: Wiley.

- The Wall Street Journal, 2015. *Etsy Leans on Machine Learning to Help You Find Just the Right Bedazzled Wallet.* [Online]
  Available at: https://blogs.wsj.com/cio/2015/06/05/etsy-leans-on-machine-learning-to-help-you-find-just-the-right-bedazzled-wallet/
  [Accessed 14 09 2020].

- Thomas, D., 2016. A General Inductive Approach for Analyzing Qualitative Evaluation Data. *The American Journal of Evaluation,* 27(2), pp. 237-246.

- Tiffany, K., 2019. *Was Etsy too good to be true?.* [Online]
  Available at: https://www.vox.com/the-goods/2019/9/4/20841475/etsy-free-shipping-amazon-handmade-josh-silverman
  [Accessed 23 08 2020].

- U.S. House Committee On The Judiciary, U.S. Congress, 2020. *Online Platforms and Market Power, Part 6: Examining the Dominance of Amazon, Apple, Facebook, and Google.* [Online]
  Available at: https://judiciary.house.gov/calendar/eventsingle.aspx?EventID=3113
  [Accessed 06 09 2020].

- UK Department for Business, Energy & Industrial Strategy , 2020. *Longitudinal Small Business Survey: SME Employers(businesses with 1-249 employees) – UK, 2019,* London: Open Government Licence.

- Urquhart, C., 2013. *Grounded theory for qualitative research : a practical guide.* London: Sage Publications.

- US House of Representatives, 2020. *Hearing: Online Platforms and Market Power, Part 6: Examining the Dominance of Amazon, Apple, Facebook, and Google.* [Online]
  Available at: https://docs.house.gov/meetings/JU/JU05/20200729/110883/HHRG-116-JU05-20200729-QFR052.pdf
  [Accessed 15 09 2020].

- Vodák, J., Novysedlák, M., Čakanová, L. & Pekár, M., 2019. Influencer Marketing as a Modern Phenomenon in Reputation Management. *Managing Global Transitions,* 17(3), pp. 211-220.

- WARC Data, 2020. *The Impact of COVID19 on Ad Investiment 2020,* London & New York: WARC DATA Global Ad Trends.

- wayfair.co.uk, 2020. *wayfair.co.uk.* [Online]
  Available at: https://www.wayfair.co.uk/
  [Accessed 30 08 2020].

- webretailer.com, 2020. *Online Marketplaces in the UK: Amazon and eBay Dominate.* [Online]
  Available at: https://www.webretailer.com/b/online-marketplaces-uk/
  [Accessed 2020 August 2020].

- Wiesche, M., Jurisch, M., Yetton, P. & Krcmar, H., 2017. GROUNDED THEORY METHODOLOGY IN INFORMATION SYSTEMS RESEARCH. *Mis Quarterly,* 41(3), pp. 685-702.

- Wills, J., 2018. *7 Ways Amazon Uses Big Data to Stalk You. In Investopedia Stock Analysis [BLOG].* s.l.:Newstex..

- Wilson, C., 2014. Semi-Structured Interviews-Chapter 2. In: *Interview Techniques for UX Practitioners: A User-Centered Design Method.* Oxford: Elsevier, pp. 23-41.

- Wu, Y., Ngai, E., Wu, P. & Wu, C., 2020. Fake online reviews: Literature review, synthesis, and directions for future research. *Decision Support Systems.*

- Yang, B., Liu, Y., Liang, Y. & Tang, M., 2019. Exploiting user experience from online customer reviews for product design. *International Journal of Information Management,* 46(1), pp. 173-186.

- Zhang, Y. et al., 2021. A bibliometric review of a decade of research: Big data in business research – Setting a research agenda. *Journal of Business Research,* Volume 131, pp. 374-390.

- Zhu, F. & Liu, Q., 2018. Competing with complementors: An empirical look at Amazon.com. *Strategic Management Journal,* 39(10), pp. 2618-2642.

- Zikmund, W. G., 1997. *Business Research Method.* 5th ed. Orlando, Florida USA: Harcourt Brace College Publishers.

- Zikmund, W. G., Babin, B. J., Carr, J. C. & Griffin, M., 2013. *Business Research Methods.* 9th ed. Canada: South Western: Cengage Learning.

- Ziora, A., 2015. The Role of Big Data Solutions in the Management of Organizations. Review of Selected Practical Examples. *Procedia Computer Science,* 65(1), pp. 1006-1012.

Appendices

Appendix 1: Sales Rankings of Kotler & Keller Marketing Management 2016

Marketing Management, Global Edition Paperback

https://www.amazon.co.uk/Kotler-Marketing-Management_p4-European-Phil/dp/1292248440/

Snapshot Taken on 17th September 2020.

Sales ranking information is below.

Product details

Hardcover : 840 pages

ISBN-10 : 1292248440

ISBN-13 : 978-1292248448

Product Dimensions : 21.5 x 3 x 28 cm

Publisher : Pearson Education (4 July 2019)

Language: : English

Best Sellers Rank: 29,791 in Books (See Top 100 in Books)

28 in Marketing Management

71 in Sales Techniques

78 in Call Centre Management
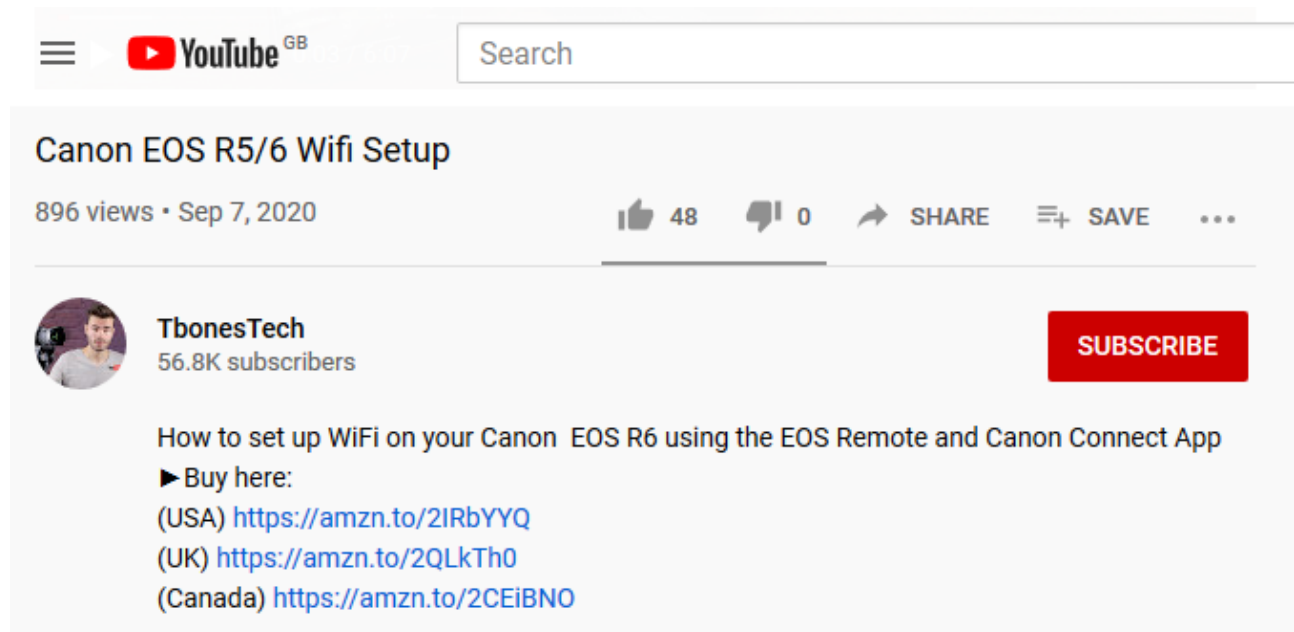
Customer reviews: ⭐⭐⭐⭐☆ ⌄   7 ratings

#28

MARKETING MANAGEMENT
4th European edition
Philip Kotler
Kevin Lane Keller
Mairead Brady
Malcolm Goodman
Torben Hansen
Pearson

Marketing Management: European Edition
Phil T. Kotler
⭐⭐⭐⭐☆ 7
Hardcover
£52.48 ✓prime

Appendix 2: Example of a Social Media Product Endorsement from Influencer on YouTube.

YouTube 16th August 2020 – "**Tbones Tech**" is an official influencer who tests and tries products with links to buy the products they are testing on Amazon. In this example he was setting up a Cannon camera.

https://www.youtube.com/watch?v=W6MWGUwOpjw

Appendix 3: Examples of Sponsored Search Results

Amazon 16th September 2020 – search result for sear term "Face Mask" the first result is a sponsored result.

EBay 16th September 2020 – search result for sear term "Face Mask" the first result is a sponsored result.

Appendix 4: Word Clouds from the Forum Data

Source: The Researcher

Appendix 5: Full Questionnaire

PhD Survey - Final Version

Q1 Prepared by: Daniel Hawcroft

The data collected from this survey will be kept strictly confidential. All results will be totally anonymized. It is understood that your responses are your personal opinions and not that of your firm or any other third party organization that your firm is partnering with. Your name and name of your organization will not be used in the publishing of the results and any data will only be used with your express authorization.

The survey is completely voluntary and should take less than 20 mins to complete.
Please complete the consent form below before conducting the survey.

Q2 I have read the Information contained in the email invitation for this study and understand if I had any questions I am free to ask and have any further details of the study explained to me.

○ Yes (1)

○ No (2)

Q3 My questions about the study have been answered to my satisfaction and I understand that I may ask further questions at any point.

○ Yes (1)

○ No (2)

Q4 I understand that I am free to withdraw from the study, 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.

○ Yes (1)

○ No (2)

Q5 I agree to provide information to the researchers under the conditions of confidentiality set out in the information contained in the email invite for this survey.

○ Yes (1)

○ No (2)

Q6 I wish to participate in the study under the conditions set out in the information contained in the email invite for this survey

○ Yes (1)

○ No (2)

Q7 I consent to the information collected for the purposes of this research study, once anonymized (so that I cannot be identified), to be used for any other research purposes.

○ Yes (1)

○ No (2)

Q8 Position / Role within the company

○ Your Name: (1) _____

○ Company Name: (2) _____

○ Position / Role within the company: (3) _____

Q9 How many staff does your organization have?

○ 1-10 (1)

○ 11-20 (2)

○ 21-30 (3)

○ 31-40 (4)

○ 41-50 (5)

○ 51+ (6)

Q10 What is the annual turnover of your organization in the last financial year?

○ Less than £20,000 (1)

○ £20,000 - £39,999 (2)

○ £40,000 - £59,000 (3)

○ £60,000 - £79,000 (4)

○ £80,000 - £99,000 (5)

○ £100,000 - £119,999 (6)

○ £120,000 - £139,999 (7)

○ £140,000 - £159,999 (8)

○ £160,000 - £179,999 (9)

○ £180,000 - £199,999 (10)

○ £200,000 or More (11)

Q11 Please indicate how long you have sold products using an online marketplace.

○ Under 1 year (1)

○ 1-2 years (2)

○ 2 - 3 years (3)

○ 3 - 4 years (4)

○ 4 - 5 years (5)

○ 5-6 years (6)

○ 6 -7 years (7)

○ 7 - 8 years (8)

○ 8 - 9 years (9)

○ 10 or more years (10)

Q12 Is online marketplace selling your only sales platform?
 Please indicate the approx. % of total sales via the online marketplace and any other sources (totaling 100%).
Online Marketplace (including online auction, social media website) : _____   (1)
Own Website : _____   (2)
Physical Store / Shop / Market : _____   (3)
Mail or Telephone order : _____   (4)
Other Sources (Please State) : _____   (5)
Total : _____

Q13 Do you sell on multiple online marketplaces or online auction sites? if so in what proportions?
 If you sell on only one online marketplace, please type 100% in the one you use.
 Response must total 100%
Amazon : _____   (1)
eBay : _____   (2)
Etsy : _____   (3)
Not on the high street : _____   (4)
Alibaba : _____   (5)
Social Media sites (such as Facebook Marketplace) : _____   (6)
Other (Please state) : _____   (7)
Total : _____

Q14 What product category / categories do you currently sell into on the online marketplace?
 Please indicate the approx % of sales in each category (totaling 100%).
Automotive (Car and Motorbike) : _____   (1)
Baby : _____   (2)
Beauty : _____   (3)
Books : _____   (4)
Electronics, Camera & Accessories : _____   (5)
Grocery : _____   (6)
Health and Personal Care & Appliances : _____   (7)
Home & Kitchen : _____   (8)
Home Improvement / DIY : _____   (9)
Lawn & Garden : _____   (10)
Media DVD, Video Games : _____   (11)
Mobile / Tablet Device and Accessories : _____   (12)
Music and Musical Instruments : _____   (13)
Office Supplies : _____   (14)
PC, Computing, Console and Accessories : _____   (15)
Pet Products : _____   (16)
Shoes, Clothing and Fashion Accessories : _____   (17)
Sports & Outdoor : _____   (18)
Toys : _____   (19)
Other : _____   (20)
Total : _____

Q15 Choose the option that best describes your organizations inventory storage and fulfillment (shipment) methods.
 Note: The "fulfillment provider" refers to an organization who stores / packs and ships items on a seller's behalf (not

mail/parcel carriers)

◯ All my inventory is held and shipped by my organization (1)

◯ All my inventory is held by a fulfillment provider and all orders are shipped by the provider (2)

◯ The majority of my inventory is held and shipped by my organization but some of my inventory is held and shipped by the fulfillment provider (3)

◯ The majority of my inventory is held and shipped by the fulfillment provider but some of my inventory is held and shipped by my organization (4)

Q16 Who is responsible for / involved in setting your organizations overall marketing strategy?
Please select all that apply.

☐   Executive/ Board level (1)

☐   Functional business leader such as VP / Director or Head of Marketing (2)

☐   Marketing team / dept (3)

☐   Marketing service agency (4)

☐   Cross functional team (5)

☐   No-one is currently leading this (6)

☐   Other (Please Specify) (7) _____

Q17 Select the statement that best describes your organizations marketing strategy

○ My organization has an overall marketing plan/ strategy that is applicable to all products and selling platforms (1)

○ My organization has a specific, separate marketing plan/ strategy that is linked to online marketplace selling only (2)

○ My organization has a marketing plan / strategy but it is not applicable online marketplace selling. (Online Marketplace selling is not represented) (3)

○ My organization does not have any formal marketing plans / strategies (but informal plans exist) (4)

Q18 To what extent do you have control over your own marketing strategies whilst using the online marketplace?

	Full control (1)	A lot of control (2)	A moderate amount of control (3)	Little control (4)	No control at all (5)
Product: What products to stock (1)	○	○	○	○	○
Product: Product listing content (Images and Text) (2)	○	○	○	○	○
Product: Advertising (search ranking, sponsored products, gaining the buy-button) (3)	○	○	○	○	○
Pricing: Selling prices (4)	○	○	○	○	○
Place: Inventory placement (5)	○	○	○	○	○
Place: Distribution method (6)	○	○	○	○	○
Promotion: Discounting (7)	○	○	○	○	○
Promotion: Buying Incentives (8)	○	○	○	○	○
Branding (9)	○	○	○	○	○
Customer Service: Returns and Refunds (10)	○	○	○	○	○
Customer Service: Delivery presentation (packaging etc) (11)	○	○	○	○	○
Customer Experience: Post sale marketing (12)	○	○	○	○	○

	Full control (1)	A lot of control (2)	A moderate amount of control (3)	Little control (4)	No control at all (5)

Customer Experience: Repeat sale marketing / loyalty incentivizing (13)	○	○	○	○	○
Customer Experience: Customer reviews / Ratings (14)	○	○	○	○	○
Company Reputation (15)	○	○	○	○	○

Q19 Do you use any of these popular marketing strategy models or frameworks when setting your company marketing strategy, choose all that apply

	Yes - This strategy is used in my organisation (1)	Yes - This strategy is partially used in my organisation (3)	No - This strategy is not used in my organisation (4)
Marketing Mix (4Ps or 7Ps) Link to Definition (39)	○	○	○
Porters Generic Strategies Link to Definition (40)	○	○	○
SOSTAC Marketing Link to Definition (41)	○	○	○
Product Life Cycle (PLC) Strategy Link to Definition (42)	○	○	○
RACE / PRACE Models Link to Definition (43)	○	○	○
Other (Please State) (44)	○	○	○
I / we use our own in-house marketing strategy (not linked to any of the above) (45)	○	○	○

Q20 Do you do your own data analysis that informs your marketing decisions?
Choose the most appropriate sentence that best describes your organization

○ All the data analysis is done in-house using self generated data - (Internal Data) (1)

○ All the data analysis is provided by the Online Marketplace provider in reports they provide to me or "self service" queries that can be run (External Data) (2)

○ Analysis is conducted using a mixture of internal and external (described above) is conducted (3)

○ An external agency do the Marketing analysis for my organization (4)

○ Currently No data analysis is being used to inform my marketing decisions (5)

Q21 What data / information do you use to inform your online marketplace marketing decisions?
Choose all that apply, what the data is used for and the source of the data.

	How is the data applied/ what Marketing decisions does the data inform?					Where is the data from / source?			Does it apply?
	Price Decisions (1)	Inventory Decisions (2)	Product line (should I sell this item) (3)	Promotion Decisions (4)	Sponsorship (5)	Market place (1)	External (2)	Both (3)	Tick if used (1)

Sales data (1)	☐	☐	☐	☐	☐	○	○	○ ☐
Product data (2)	☐	☐	☐	☐	☐	○	○	○ ☐
Pricing data (3)	☐	☐	☐	☐	☐	○	○	○ ☐
Inventory data (4)	☐	☐	☐	☐	☐	○	○	○ ☐
Customer review data (5)	☐	☐	☐	☐	☐	○	○	○ ☐
Customer page view(s) data (6)	☐	☐	☐	☐	☐	○	○	○ ☐
Competitor data (7)	☐	☐	☐	☐	☐	○	○	○ ☐

Q22 Do you do your own market research on the marketplace and/or other sources?
Choose all that apply

	Do you do this?	Tick all that apply						
	Tick is this applies (1)	Compare product listings (1)	Compare prices (2)	Compare delivery charges (3)	Compare promotions (4)	Compare customer rating (5)	Compare sales ranking (6)	Compare search result position (7)

Search the online marketplace. (1)	☐	☐	☐	☐	☐	☐	☐	☐
Search other online marketplaces. (2)	☐	☐	☐	☐	☐	☐	☐	☐
Search other online stores. (3)	☐	☐	☐	☐	☐	☐	☐	☐
Search other Physical stores. (4)	☐	☐	☐	☐	☐	☐	☐	☐
Other (Please Specify) (5)	☐	☐	☐	☐	☐	☐	☐	☐

Q23 Is reporting or data that is provided by the online marketplace accurate?

	Strongly Agree (x1)	Agree (x2)	Neither Agree or Disagree or Not Applicable (x3)	Disagree (x4)	Strongly Disagree (x5)
Sales data (1)	○	○	○	○	○
Product data (2)	○	○	○	○	○
Pricing data (3)	○	○	○	○	○
Inventory data (4)	○	○	○	○	○
Customer review data (5)	○	○	○	○	○
Customer page view(s) data (6)	○	○	○	○	○
Competitor data (7)	○	○	○	○	○

Q24 If you disagreed with any of the above please indicate why you beleive that inaccuracies exist in the data provided.
 In 140 characters or less

_____Page 238 of 258_____

_____

Q25 These statements refer to the products you sell and product listings:
Please indicate the extent to which you agree or disagree with the statements that are applicable to your organization

	Strongly Agree (x1)	Agree (x2)	Neither Agree or Disagree or Not Applicable (x3)	Disagree (x4)	Strongly Disagree (x5)
I am able to use data provided by the marketplace provider to make decisions about **product listings.** (1)	○	○	○	○	○
I am able to use data provided by the marketplace provider to enhance my **product listings.** (2)	○	○	○	○	○
I am able to use data provided by the marketplace provider to identify errors within my **product listings.** (3)	○	○	○	○	○
I am able to use data provided by the marketplace provider to find out how effective my **product listings** are in making a sale. (4)	○	○	○	○	○
I am able to use data provided by the marketplace provider to find out where my **product listings** appear in searches. (5)	○	○	○	○	○

I am able to use data provided by the marketplace provider to improve my **products' ranking** in search results. (6)

○   ○   ○   ○   ○

I use my own data and research in conjunction with data provided by the marketplace provider to make decisions about **product listings.** (7)

○   ○   ○   ○   ○

I am able to use data provided by the marketplace provider to make decisions about my **product range** and whether to sell certain products or not. (8)

○   ○   ○   ○   ○

I use my own data and research in conjunction with data provided by the marketplace provider to make decisions about my **product range** and products that I sell. (9)

○   ○   ○   ○   ○

I am able to use data provided by the marketplace provider to **predict/forecast sales volumes**. (10)

○   ○   ○   ○   ○

Q26 These statements refer to the pricing and pricing decisions:
Please indicate the extent to which you agree or disagree with the statements that are applicable to your organization

	Strongly Agree (x1)	Agree (x2)	Neither Agree or Disagree or Not Applicable (x3)	Disagree (x4)	Strongly Disagree (x5)
I am able to use data provided by the marketplace provider to make decisions about **pricing.** (1)	○	○	○	○	○
I am able to use data provided by the marketplace provider to **benchmark/compare prices** with other sellers. (2)	○	○	○	○	○
I am able to use data provided by the marketplace provider to proactively **plan/forecast prices**. (3)	○	○	○	○	○
Data provided by the marketplace provider allows me to make reactive **changes to prices** in response to market variations. (4)	○	○	○	○	○
I use my own data in conjunction with data provided by the marketplace provider to make **pricing decisions.** (5)	○	○	○	○	○
I am able to use data provided by the marketplace provider set my **product margins** or mark-up. (6)	○	○	○	○	○
I am able to use data provided by the marketplace provider to **track my profitability**. (7)	○	○	○	○	○

Q27 These statements refer to promotions / offers / discounts and purchase incentives:
Please indicate the extent to which you agree or disagree with the statements that are applicable to your organization

	Strongly Agree (x1)	Agree (x2)	Neither Agree or Disagree or Not Applicable (x3)	Disagree (x4)	Strongly Disagree (x5)
I am able to use data provided by the marketplace provider to make **decisions about promotions / offers or discounts**. (1)	○	○	○	○	○
I am able to use data provided by the marketplace provider to **research promotions** offered by other sellers. (2)	○	○	○	○	○
I am able to use data provided by the marketplace provider to track and **monitor the effectiveness of my promotions** / offers or discounts. (3)	○	○	○	○	○
I am able to use data provided by the marketplace provider to make **decisions about when to run promotions** / offers or discounts. (4)	○	○	○	○	○
I am able to use data provided by the marketplace provider to **make decisions about what type promotions** / offers or discounts to run. (5)	○	○	○	○	○

I am free to offer any **promotion / offer or discounts** on any of my products. (6)	◯	◯	◯	◯	◯
I am restricted to only certain types of **promotions / offers and discounts**. There are more I'd like to offer but can't. (7)	◯	◯	◯	◯	◯
I feel pressure to participate in key retail calendar events such as **Black Friday and Cyber Monday**. (8)	◯	◯	◯	◯	◯
Promotions / offers and discounts are a **key part of my business** and are largely profitable. (9)	◯	◯	◯	◯	◯
I lose money on some **promotions** in order to remain competitive. (10)	◯	◯	◯	◯	◯

Q28 These statements refer to you inventory placement and deliveries:
Please indicate the extent to which you agree or disagree with the statements that are applicable to your organization

	Strongly Agree (x1)	Agree (x2)	Neither Agree or Disagree or Not Applicable (x3)	Disagree (x4)	Strongly Disagree (x5)
I am able to use data provided by the marketplace provider to make **decisions about what delivery options** to provide. (1)	○	○	○	○	○
I am able to use data provided by the marketplace provider to make decisions about what the most **cost effective delivery options** are. (2)	○	○	○	○	○
I am able to use data provided by the marketplace provider to make decisions about if its more cost effective to f**ulfill my own orders** or use **fulfillment services**. (3)	○	○	○	○	○
I am able to use data provided by the marketplace provider to know where my **customers are geographically**. (4)	○	○	○	○	○
I make profit on the prices changed for delivery. (5)	○	○	○	○	○
I lose money on the prices charged for delivery. (6)	○	○	○	○	○

I am able to use data provided by the marketplace provider to make decisions about **inventory placement**. (7)	○	○	○	○	○
I do not worry about **inventory placement.** (8)	○	○	○	○	○
I am able to use data provided by the marketplace provider to identify **"stale" or "unhealthy inventory".** (9)	○	○	○	○	○
I am able to use data provided by the marketplace provider to identify **lost or damaged inventory**. (10)	○	○	○	○	○
Inventory loss or damage is a concern. (11)	○	○	○	○	○

Q29 These statements refer to your customers / customer satisfaction/ customer loyalty:

Please indicate the extent to which you agree or disagree with the statements that are applicable to your organisation

	Strongly Agree (x1)	Agree (x2)	Neither Agree or Disagree or Not Applicable (x3)	Disagree (x4)	Strongly Disagree (x5)
I am able to use data provided by the marketplace provider to make **targeted offerings** to my customers. (2)	○	○	○	○	○
I am able to use data provided by the marketplace provider to **contact my customers** for feedback. (3)	○	○	○	○	○
I am able to use data provided by the marketplace provider to respond to my **customers feedback**. (4)	○	○	○	○	○
I am able to use data provided by the marketplace provider to track **customer loyalty** (repeated sales). (5)	○	○	○	○	○
I am able to use data provided by the marketplace provider to reward **customer loyalty** (repeated sales) by offering discounts etc. (6)	○	○	○	○	○
I am able to set my own **refunds and returns policy**. (7)	○	○	○	○	○

	Strongly Agree (x1)	Agree (x2)	Neither Agree or Disagree or Not Applicable (x3)	Disagree (x4)	Strongly Disagree (x5)

I am able to handle **customer contcacts** and queries in the way I would like to. (8)	○	○	○	○	○
Customer satisfaction is fully within my ability to influence. (9)	○	○	○	○	○
Customer satisfaction is in the hands of the online marketplace provider. I have little influence over this. (10)	○	○	○	○	○
My customers are aware of **my brand** whist selling on the online marketplace. (11)	○	○	○	○	○
My customers are not aware that I am a **marketplace seller.** They believe they are buying directly from the marketplace provider. (12)	○	○	○	○	○

Q30 Is there anything related to any of the questions you have answered that you would like to elaborate on or anything relevant that you wish to share about your experience of selling products using online marketplaces? Please use this text field to add anything further:

_____

_____

_____

_____

_____

Q31 The data collected in this survey is the first part of the research being conducted. A second phase of research consisting of semi-structure interviews will be conducted and the participating organizations will be "case studies" within the research (anonymized) . Please indicate whether you would be interested in participating in this second phase and acting as a case study.

○ No: thanks for the offer I would not be able to participate in the second phase of the research. (1)

○ Yes: Count me in. I would like to be considered to be a participant in the second phase of the research. (2)

Q32 If you answered Yes to the above, please indicate the point of contact and a contact email in order for the follow-up to be arranged.

○ Name (1) _____

○ Position within the organization (2) _____

○ Email address (3) _____

End of Questionnaire

Appendix 6: Email to Invite Sample to take the survey

Dear {First Name}

My name is Daniel Hawcroft, I am a PhD student at Sheffield Hallam University. My field of research is in the area of marketing strategies of the online marketplace seller and how those may differ from the more traditional marketing practices.

The title of my research is: "Big Data Marketing Strategy Approaches for Businesses Selling through Online Marketplace Platforms".

The aim of the research is to understand the nuances of marketing strategies and the role of big data, when selling via an online marketplace such as Amazon, EBAY, ETSY or "Not on the high-street" etc. The research is being conducted for academic purposes and results will be included in a PhD thesis.

I invite you to take part in a survey to seek your views on this subject as a current marketplace seller. The survey should take around 20 minutes to complete.

Please note that your response is private and confidential. Individual respondents will not be identified in any data or reports. Survey responses will not be linked with any company or individual names / details.

Participation in this survey is highly valued, but voluntary. You are free to withdraw consent at any time. Your anonymity and the confidentiality of your response will be protected to the fullest possible extent.

If you have any questions about this survey or would like further information, please feel free to contact me via the following email address: daniel.hawcroft@student.shu.ac.uk

Thank you for considering your involvement in this survey. The Survey Will be live until 11th June 2019.

{Survey Link} – Click here

Yours sincerely

Daniel Hawcroft (BA, PgCert, MSc)
Doctoral Researcher, Sheffield Business School
Sheffield Hallam University

{Opt Out Link} – Click here

Appendix 7: Questionnaire Reminder Email

Dear {First Name}

My name is Daniel Hawcroft, I am a PhD student at Sheffield Hallam University. I contacted you in February to ask if you would like to participate in a short survey. I have reopened the survey with this reminder in hope that you could spare some time to share your experiences via the questionnaire.

My field of research is in the area of marketing strategies of the online marketplace seller and how those may differ from the more traditional marketing practices.

The title of my research is: "Big Data Marketing Strategy Approaches for Businesses Selling through Online Marketplace Platforms".

The aim of the research is to understand the nuances of marketing strategies and the role of big data, when selling via an online marketplace such as Amazon, EBAY, ETSY or "Not on the high-street" etc. The research is being conducted for academic purposes and results will be included in a PhD thesis.

The survey should take around 20 minutes to complete.

Please note that your response is private and confidential. Individual respondents will not be identified in any data or reports. Survey responses will not be linked with any company or individual names / details.

Participation in this survey is highly valued, but voluntary. You are free to withdraw consent at any time. Your anonymity and the confidentiality of your response will be protected to the fullest possible extent.

If you have any questions about this survey or would like further information, please feel free to contact me via the following email address: daniel.hawcroft@student.shu.ac.uk

Thank you for considering your involvement in this survey. The Survey Will be live until 11th June 2019.

{Survey Link} – Click here

Thank you for your time,
Yours sincerely

Daniel Hawcroft (BA, PgCert, MSc)
Doctoral Researcher, Sheffield Business School
Sheffield Hallam University

{Opt Out Link} – Click here

Appendix 8: Questionnaire Thank you Email

Dear {First Name}

Thank you for taking the time to complete this survey. The information you have provided is truly valued and your responses will contribute data and results that will form part of my academic body of research. If you would like to volunteer your organization to be a case study and participate in the second part of the research where the format will be a 60 minute semi structured interview, please email me on daniel.hawcroft@student.shu.ac.uk

if you would like to withdraw your survey response from this research click on the link: {Opt Out Link} – Click here

Many thanks,

Daniel Hawcroft (BA, PgCert, MSc)
Doctoral Researcher, Sheffield Business School
Sheffield Hallam University

Appendix 9: Ethical Principles Followed

Ethical Principal	Ethical Considerations in this Research
Harm to participants	This is mainly associated with medical participant research however there are no chances of any physical or mental harm from participating in the research
Informed consent	All participants will be asked for their informed consent, information will be provided ahead of the research being conducted which will cover what the research will be used for and how the data will be stored.
Anonymity	No names of businesses or individuals will be used. Proxy names such as "Participant 1" and "Case 2" will be used. Organizations will be referred to by their general characteristics only to limit identification.
Dignity	
Privacy	No data collected that the participant has expressed to be omitted will be used. This data will be deleted on request.
Confidentiality	See Anonymity
Affiliation	
Honesty and transparency	The research will be conducted openly and the aims and objectives will be shared with participants, results and data can be provided to participants and this option will be openly offered
Deception	No attempts to deceive, cover up, hide, lie or omit information from the participants or the research itself will be made.
Misrepresentation	To avoid misrepresentation the participants transcripts will be shared and will be asked if they accurately represent their data.
Reciprocity	Data will only be used for academic purposes and will not be shared beyond the publication of the findings. Detailed data will be stored in the university servers and not shared beyond the academic research.

Source: (Bell & Bryman, 2007)

Appendix 10: Examples of how brands and business names are displayed on Marketplace listings

Notonthehighstreet.com 23rd August 2020 Seller = MC2 DESIGNS

NOT ON
THE HIGH
STREET
The home of thoughtful gifts

sign in / register

enter search term   FIND

GIFTS   BIRTHDAY   CARDS   HOME   PRINTS   JEWELLERY   BABY & CHILD   FOOD & DRINK   INSPIRATION   WEDDINGS   SEE MORE

Excitement level: YAY!   **SHOP UNIQUE BIRTHDAY GIFTS »**

HOMEPAGE > HEALTH & BEAUTY > HEALTH & BEAUTY ACCESSORIES > FACE MASKS > COTTON ADULT FACE MASK FOR MEN

Cotton Adult Face Mask For Men
by MC2 DESIGNS

£9

★★★★★
56 customer reviews

- **FREE** Mainland UK Delivery - estimated by **Wednesday 26 August**
- **£6.95** Tracked Two Day Delivery - estimated by **Tuesday 25 August**
- UK delivery only

♡ FAVOURITE   ASK SELLER

🔍 ZOOM

Amazon.co.uk 23rd August 2020 – Seller = LILIND

amazon.co.uk
Prime

All ▾   face mask cotton

Account ▾   Returns & Orders   Your Prime ▾   Ba

Customer Service   Best Sellers   PC   Gift Cards & Top Up   Buy Again   Books   **Today's Deals. New deals, ever**

handmade   Gifts ▾   Jewellery ▾   Home & Kitchen ▾   Clothing, Shoes & Accessories ▾   Baby ▾

top up   Keep track of your spending with Top Up   Learn more ▸

‹ Back to results

Fashion Face Mask, Handmade Cover, Reusable, 100% Cotton, Gray Stars Pattern
Brand: Lilind
★★★★☆ ˅   164 ratings

Was: £9.90
Price: £8.90 ✓prime
You Save: £1.00 (10%)

Roll over image to zoom in

✓ **PROTECT against dust, pollens:** Triple Layered design for extra safety vs urban pollution, dust particles, smog weather, Spring pollen allergies.
✓ **FASHION** Handmade by me, Lilind from 100% cotton.
✓ **BREATHABLE** and Easy to use: Folds

£8.90
✓prime

In stock.
Sold by LILIND and Fulfilled by Amazon.

FREE delivery: **Wednesday, Aug 26**
Order within 20 hrs 35 mins Details

◉ Deliver to D - Barnsley S70 3RS

Quantity: 1 ˅

Add to Basket

Buy Now

EBay.co.uk 23rd August 2020 Seller = PROFESSIONAL_BADGE

Hello. Sign in or register   Daily Deals   Help & Contact

Sell   Watch List ⌄   My eBay ⌄

ebay   Shop by category ⌄   🔍 Search for anything | All Categories ⌄ | Search   Advanced

‹   Back to search results | Listed in category: Clothes, Shoes & Accessories > Specialty > Fancy Dress & Period Costume > Accessories > Masks & Eye Masks   ✉ f 🐦 📌 | Watch this item

🅱 UP TO **6%** OFF WITH MULTI-BUY

FAST SHIPPING Triple layers soft cotton adult size FLORAL Face Masks washable
✅ULTRA COMFY ✅100% CUSTOMER SATISFACTION ✅HIGH QUALTTY

Condition: **New without tags**

"UK STOCK FAST DELIVERY TRIPLE COTTON 3D FIT NOSE WIRE FILTER POCKET"

colour: - Select -   ⌄

Multi-buy:

| Buy 1 £3.99 each | Buy 2 £3.91 each | Buy 3 £3.83 each |

Quantity: 1   4 or more for £3.75 each

More than 10 available
162 sold

Shop with confidence

🅱 eBay Money Back Guarantee
Get the item you ordered or your money back. Learn more

Seller information
professional_badge (3646 ⭐)
99.5% Positive Feedback

♡ Save this seller
Contact seller
Visit Shop
See other items

Registered as a business seller

Etsy.co.uk 23td August 2020 Seller = LoiuseHandmade

Etsy   cotton facemask   ✕ 🔍   Sign in 🛍

Jewellery & Accessories   Clothing & Shoes   Home & Living   Wedding & Party   Toys & Entertainment   Art & Collectibles   Craft Supplies   Vintage   🎁 Gifts

ℹ Items sold on Etsy, such as masks and hand sanitisers, aren't medical-grade. Etsy sellers can't make medical or health claims. More info.

← Back to search results

LouisesHandmade
📍 Local seller | 771 sales | ★★★★★

Facemask, Triple Layered Cotton, Reusable, Washable, Made In UK

Bestseller

£4.20   ✓ In stock

VAT included (where applicable), plus postage

Primary colour
Select a colour   ▼

Quantity
1   ▼

Add to basket

Appendix 11: Interview - Example of Email send to Possible interview Volunteers

Hello [Firstname]

I'm contacting you because you previously participated in a survey-based piece of research that I conducted in 2018-19, relating to selling on online marketplaces.

You previously indicated that you would be interested in participating in the second phase of the research.

The next phase of the research will be a 1-hour interview with yourself or an individual who deals with marketing within your business. The interview will focus on your experience with data, marketing tools and marketing strategies whilst selling on Amazon. The interview content that you provide will be kept 100% anonymous when included in the final study and the written summary of your experience will be validated with you before being included in the research.

If you would be interested in participating in the second phase of my research please could you let me know by replying to this email? I am happy to plan a time suitable for you, I can provide the questions in advance and can conduct the interview via Zoom.

Much appreciated

Dan Hawcroft

Doctoral Researcher Sheffield Business School

Sheffield Hallam University.

Appendix 12: Interview - Example of Confirmation of Transcript Representation of Participant Views and Comments on Final Model.

On Sat, 8 May 2021 at 11:17, [OMITTED DETAIL] wrote:

Hey Dan
I have taken a look at the model and I can see that it is really fitting for us as sellers. As we discussed my marketing planning is very informal, but this model would defiantly help keep things structured. Its defiantly useful particularly for a new seller as it brings to light the tricks of the trade and I'm glad some of us seasoned seller could help with that.

Keep up the great work

Regards
[OMITTED DETAIL]

On Wed, 5 May 2021 at 19:24, DANIEL HAWCROFT <dhawcrof@my.shu.ac.uk> wrote:

Hi [OMITTED DETAIL]
As discussed in the interview we did a couple of moths ago, I have produced a marketing model for use by online marketplace sellers. This model was based on your data and the data provided by others in regards to how you have successfully formulated strategy on the marketplaces you have used.

Take a look at the model and see what you think, if you have any comments on its applicability or usefulness I would love to hear from you.

Thanks again for participating in the research,

Cheers

Dan

On Sat, 20 Feb 2021 at 10:12, [OMITTED DETAIL] wrote:

Hey Dan
I really enjoyed speaking with you the other day, I have read the document and everything looks ok to me.

Good luck with the rest of your studies. Let me know if you need anything further from me.

Regards
[OMITTED DETAIL]

On Wed, 17 Feb 2021 at 09:00, DANIEL HAWCROFT <dhawcrof@my.shu.ac.uk> wrote:
Hi

Sheffield Hallam University   Daniel Hawcroft

Thank you for spending the time with me on our call the other day. Your insights were very valuable and will greatly add to the research.

Using the recording I have written up the responses to the questions in the attachment for your review. As part of the research protocol, please let me know if this written account accurately represents your responses. I am happy to exclude anything you see in the document you don't want to be used or any additional points you may have.

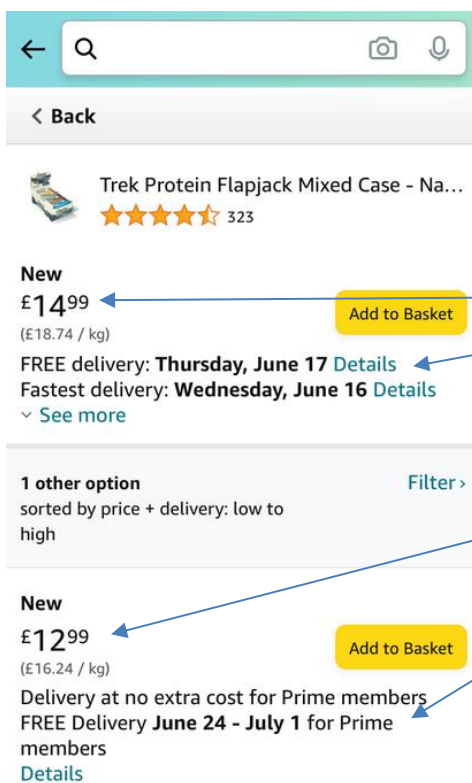Again, many thanks for your time

Cheers

Dan

Appendix 13: Example of Seller Marketing Material Inside Product Packaging

Appendix 14: Example of Search ranking of a product that shared the buy-button

Example of a product that two sellers shared the buy-button / page listing.

In this example the item ranked first and presented as the top buy-option was the most expensive but fastest delivered. This was because the algorithm put more weight on the delivery speed than the price for this customer based on their past buying behaviour.