Developing Dynamic Marketing Capabilities Through Digitalisation: A Qualitative Study of a Brewery

Thesis submitted in accordance with the requirements of the University of Liverpool for the degree of Doctor of Business Administration

By

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ABSTRACT

Today's volatile, uncertain, complex and ambiguous (VUCA) (Bennett & Lemoine, 2014) environment calls for the development of capabilities that can quickly and accurately respond to market dynamism and technological advancement (Teece, 2017; Schoemaker, Heaton & Teece, 2018). The dynamic capabilities concept is a theoretical framework used to explain the differences in performance among companies (Cyfert et al., 2021). Scholars posit that now more than ever, firms need strong dynamic capabilities for sustained competitive advantage in the fourth industrial revolution (Svahn, Mathiassen & Lindgren, 2017). The concept of digitalisation is also considered a strategic imperative for survival in the current technologically disruptive environment (Chirumalla, 2021).

This study brings the two concepts together and seeks to determine whether dynamic capabilities can be developed through digitalisation. The focus is on dynamic marketing capabilities to establish how modern-day firms develop market orientation and new product development using digital technologies. The study is qualitative-action research involving purposive sampling to select participants working in the sales and marketing departments of BREWER P Limited (BPL). Semi-structured interviews are used to collect data, and thematic analysis is used for analysis.

The findings reveal that dynamic marketing capabilities can be developed through digitalisation, with seven strong dynamic marketing capabilities emerging at BPL. These include customer relationship management, route to consumer, effectiveness and efficiency, insight generation & customer knowledge, input into research and development and other investment

decisions, institutional knowledge management and innovation culture. However, the findings also pinpoint three weaker dynamic marketing capabilities at BPL— technology adoption, predictive analytics and a need for speed and clarity in the new product development process. The capabilities identified in this study are a part of numerous capabilities available at BPL that shape its approach to the market and its consumers, thereby distinguishing the organisation as a market leader in its industry.

This study provides rich content, revealing the complementary relationship between digitalisation and dynamic capabilities. Furthermore, an intervention to address technology adoption is implemented as part of the action research, and the study proposes practical managerial actions necessary to develop the other two weaker capabilities at BPL. Lastly, the study provides practical lessons for managers in similar organisations to apply.

DECLARATION OF OWN WORK

I certify that this Doctoral thesis which is titled 'Developing Dynamic Marketing Capabilities Through Digitalisation' submitted in fulfilment of the requirements for the award of the degree of Doctor of Business Administration by the University of Liverpool, is my original work, and no portion has been previously submitted to qualify for any other academic award. All the sources referred to in this thesis have been acknowledged, and the university's ethics committee granted ethical clearance.

Jemmimah Waititu

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It was a childhood dream to undertake doctoral studies. When I finally enrolled for my DBA in 2017, I did not know what to expect, but I soon realised the studies would be as exciting as they would be demanding. The modules and learning sets were stimulating because the concepts taught and the ideas exchanged opened a new world of higher-order knowledge. The Thesis stage was especially tough because I did not know where my research would lead. In the end, I can say that this feat was only possible with the support of others. First, I would like to thank my supervisor, Dr John Byrom, who has supported and guided me patiently and shared his expertise. The help he has given has shaped my thesis and made me a better scholar-practitioner. Next, I would like to thank my DBA colleagues for sharing their insights and knowledge during the modules stage, and my colleagues at the Thesis stage, who shared their struggles and learnings, providing encouragement in those moments when I needed it. Finally, I thank my family and friends who stood by me and encouraged me throughout the journey. Thank you especially for those moments when I was unavailable, but you understood and even stood in for me.

DEDICATION

This thesis is dedicated to a few people who have shaped my life and supported me every day of the journey. The first dedication goes to my husband and our son for their love, support and encouragement. The second dedication is to my parents and siblings. Without their love, guidance and commitment to my education and wellbeing, I cannot say if I would have ended up undertaking a doctorate.

LIST OF TABLES

Tables Page
Table 1: Participant Profile …… 85
Table 2: Interview Process and Activities ……. 88
Table 3: Research Design …….. 89
Table 4: DMCs Emerging from Cycle One ……..……..103
Table 5: Cycle Two Results …….…… 109
Table 6: Summary of DMCs at BPL ……. 142

LIST OF FIGURES

Figures Page
Figure 1: Link Between Digitalisation, DMCs and Firm Competitiveness …..…… 30
Figure 2: The Conceptual Framework …….. 55
Figure 3: Cycles of Action Research ……..……. 80
Figure 4: Stage-Gate® Innovation Model ……155
Figure 5: Relationship Between Thesis Research, Core AR and Thesis Writing……. 182

LIST OF ABBREVIATIONS

AI - Artificial Intelligence

A&P - Advertising and Promotion

AR - Action Research

ATL - Above the Line

AWS- Amazon Web Services

BDA - Big Data Analytics

BPL - Brewer P Limited

BTL - Below the Line

B2B - Business to Business

B2C - Business to Consumer/Customer

BD - Big Data

BDMM - Big Data Maturity Model

CAQDAS - Computer Aided Qualitative Data Analysis Software

CC - Cloud Computing

CPS - Cyber-Physical System

DC - Dynamic Capability

DMC - Dynamic Marketing Capability

DT - Digital Twin

EDGE - Every Day Great Execution

EXCO - Executive Committee

IBM - International Business Machines Corporation

IoT - Internet of Things

KPI - Key Performance Indicator

M&E - Measurement and Evaluation

MNC- Multi National Corporation

MO - Market Orientation

NPD - New Product Development

OA - Organisational Agility

RBV - Resource Based View

R&D- Research and Development

ROI - Return on Investment

RTC - Route to Consumer

SCOT- Social Construction of Technology

SKU - Stock Keeping Unit

SMS - Short Messaging System

UTAUT - Unified Theory of Acceptance and Use of Technology

VRIN- Valuable, Rare, Inimitable and Non-substitutable

VUCA- Volatile, Uncertain, Complex and Ambiguous

TABLE OF CONTENTS

1	**CHAPTER ONE: INTRODUCTION**	**14**
1.1	Organisational Context	14
1.1.1	The Road to Digitalisation at BPL	17
1.1.2	Market Orientation at BPL	18
1.1.3	New Product Development at BPL	19
1.2	Conceptual Context	20
1.3	Problem Statement	22
1.4	The Rationale for the Study	24
1.5	Aims and Objective of the Study	26
1.6	Scope	26
1.7	Structure of the Thesis	27
1.8	Summary	27
2	**CHAPTER TWO: LITERATURE REVIEW**	**29**
2.1	Introduction	29
2.2	Need for Change and Firm Competitiveness	31
2.3	Digitalisation	34
2.3.1	Agility	35
2.3.2	Technology	36
2.3.3	Technology Adoption	37
2.3.4	Digitalisation Challenges	38
2.4	Dynamic Capabilities	39
2.4.1	Dynamic Capabilities and Firm Performance	41
2.4.2	Sensing	42
2.4.3	Seizing	43
2.4.4	Reconfiguring	44
2.4.5	How DCs Develop and the Role of Managers	45

2.4.6 Challenges Associated with the Development of DCs 47
2.5 Dynamic Marketing Capabilities 49
2.5.1 Market Orientation (A sensing capability)..... 51
2.5.2 New Product Development (A seizing capability) 52
2.6 Conceptual Framework 54
2.7 Enablers of Digitalisation..... 56
2.7.1 Data 57
2.7.2 Technology..... 58
2.7.3 Organisational Culture 59
2.7.4 Leadership 60
2.7.5 Organisational Processes..... 61
2.7.6 Managerial Skills 61
2.8 Influences on the Evolution of DMCs 62
2.8.1 Firm Size 62
2.8.2 Firm Age 63
2.8.3 Industry 64
2.8.4 Market Dynamism..... 64
2.9 Summary 65
3 CHAPTER THREE: METHODOLOGY..... 68
3.1 Introduction 68
3.2 Research Philosophy 68
3.2.1 Rationale for Choice of Interpretivist Paradigm 70
3.2.2 Ontology..... 71
3.2.3 Epistemology 72
3.2.4 Axiology..... 73
3.3 Research Design..... 74
3.3.1 Qualitative Research 74
3.3.2 Theory building - Inductive Approach..... 74
3.4 Research Strategy..... 75

3.4.1 Action Research 75
3.4.2 Action Research Cycles 79
3.4.3 Appraisal of Action Research 81
3.5 Data Collection 82
3.5.1 Sampling 83
3.5.2 Participants 83
3.5.3 Semi-structured Interviews 86
3.5.4 Guidelines for Data Collection 86
3.6 Data Analysis 89
3.6.1 Qualitative Data Analysis 89
3.6.2 Thematic Analysis 90
3.7 Research Quality 90
3.8 Ethical Considerations 93
3.8.1 Ethics 93
3.8.2 Pre-understanding and Bias 93
3.9 Summary 94
4 CHAPTER FOUR: CYCLES OF ACTION, ANALYSIS & FINDINGS 98
4.1 Introduction 98
4.2 Reconnaissance 98
4.3 The Action Research Cycles 98
4.3.1 Cycle One 100
4.3.2 Cycle Two 107
4.4 Findings 111
4.4.1 Digitalisation 112
4.4.2 Market Orientation 120
4.4.3 New Product Development 131
4.5 Summary 140
5 CHAPTER FIVE: DISCUSSION & ACTIONABLE RECOMMENDATIONS 142
5.1 Introduction 142

5.2 DMCs at BPL 143
5.2.1 Category: Digitalisation 144
5.2.2 Category: Market Orientation (sensing DC) 150
5.2.3 Category: New Product Development (Seizing DC) 154
5.3 Actionable Recommendations 157
5.3.1 Predictive Analytics 159
5.3.2 Agility to Speed up the NPD process 161
5.4 Implications for Practice 163
5.4.1 DC Development Requires Leadership Support 163
5.4.2 DCs are Collective, Learned and Recurrent 163
5.4.3 DC development Should be Strategic, not Tactical 164
5.4.4 Digitalisation can be Introduced Gradually in Isolated Work Streams 166
5.4.5 Digitalisation is an Emergent, Continuous and Evolving Process 167
5.4.6 Digitalisation Should be Accompanied by Change Management 168
5.4.7 Marketers Remain at the Centre of Insight Generation 169
5.5 Summary 170
6 CHAPTER SIX: CONCLUSION AND REFLECTION 173
6.1 Introduction 173
6.2 Benefits of Digitalisation in Response to Digital Disruption 174
6.3 Role of DMCs in Firm Competitiveness and Response to Market Dynamism 175
6.4 Using Digitalisation to Develop DMCs and Respond to Market Dynamism 176
6.5 Enablers of Digitalisation 177
6.6 Reflections 178
6.6.1 On Becoming a Researcher 178
6.6.2 On Becoming a Practitioner 180
6.7 Limitations of the Study 183
6.8 Further Research 184
6.9 Conclusion 185
REFERENCES 185

APPENDICES 223
Appendix 1 223
Appendix 2 224
Appendix 3 229
Appendix 4 238
Appendix 5 239
Appendix 6 240

1 CHAPTER ONE: INTRODUCTION

1.1 Organisational Context

Uncertainty and dynamism characterise the modern-day business environment, obliging firms to constantly look for ways to create and maintain a sustainable competitive advantage, such as by developing dynamic marketing capabilities (DMCs) (Elsharnouby & Elbanna, 2021). The dynamic capability (DC) theory is widely recognised for explaining differences in firm performance (Teece, 2007) and how commercial entities attain a competitive advantage through the renewal and reconfiguration of resources and capabilities (Teece, Pisano & Shuen, 1997; Eisenhardt & Martin, 2000). Furthermore, with the advancement of innovation, firms must invest in new technologies that can detect, analyse and define opportunities (Loureiro, Ferreira & Simões, 2021). The background that informed this study is the need to explore DCs as a basis for the differences in firm competitiveness, combined with the urgent need for businesses to invest in technologies that enhance underlying processes and assist the organisation in spotting opportunities.

The subject for this study is a large alcoholic beverage company, referred to as BPL, for anonymity. The firm has been in the industry for more than a century, offering products in more than one hundred countries worldwide. The company intends to improve its DMCs to keep pace with the market changes and intensifying competition. DCs are essential to firms operating in turbulent environments with the need to respond fast (Zahra, Sapienza & Davidsson, 2006). The study seeks to understand how the company uses digitalisation to enhance its existing processes as well as to explore the opportunities technology avails for the development of its DMCs. The organisation has a hierarchical structure and a slow decision-making process owing to the governance structures and practices in place.

The organisation's strong heritage, history and path dependence could impede entrepreneurship and agility. Notwithstanding, the organisation has had innovation success, and its brands are market leaders in their various categories. Although still under debate, DCs aid firms to achieve and sustain a competitive advantage, which BPL needs to maintain its leadership position. Developing DMCs would therefore be beneficial to BPL.

The percentage of people who consume alcohol in the country where BPL operates stands at thirty-three per cent, equivalent to nine million adults. The alcohol industry has both formal and informal players. The formal players comprise organisations such as BPL that are correctly constituted and legislated and contribute fifty per cent of total industry revenue. The other fifty per cent comes from informal manufacturers selling traditionally made brews that the government does not regulate. BPL has an eighty per cent market share in the formal sector, selling beer and spirits. Two local companies control ten per cent of the formal market, one selling only beer and the other selling only spirits. The remaining ten per cent is controlled by a mix of internationally owned brands in the beer and spirits categories. Recently, BPL has been facing the threat of new entrants in the form of international alcohol manufacturers who find BPL's market uncontested. Two of the largest beer manufacturers globally have plans to build brewing facilities in BPL's market.

BPL sells its products to forty-five thousand outlets, classified as 'on-trade' and 'off-trade'. The on-trade cluster comprises outlets where alcohol is sold and consumed, such as bars and eateries, while off-trade are places where alcohol is sold but not consumed, such as supermarkets. Before the COVID-19 pandemic, on-trade outlets controlled eighty-seven per cent of alcohol sales, but the market has since shifted to a point where they now account for sixty per cent. A government directive ordered the closure of bars and eateries to curb the spread of the virus, which led to an

increase in home consumption. The on-trade outlets are further classified into segments defined by the type of consumers an outlet attracts. For example, some outlets are frequented by people who want to socialise. In contrast, others are frequented by people wishing to enjoy a high-end experience, distinguished by the brands available and the type of service. These segments are vital for targeted marketing and placement of relevant products.

Additionally, local and global trends highly influence BPL's market. In the local context, there is an appetite for premium consumption, which means that the sale of high-end brands is on the rise. Another trend shaping the market is the quest for healthy consumption, which has given rise to 'no-alcohol' and 'no-sugar' beer options. Globally, the increasing awareness towards sustainability is pushing consumers to want to purchase goods and services from organisations with a clear sustainability vision, and BPL will need to define its environmental agenda. Finally, there is a global trend calling for 'creativity with alcohol' also influencing BPL's product offering as consumers expect alcohol brands to offer more creative options, such as flavoured drinks.

Before this study, I had worked with BPL in the marketing department for one and a half years. During that time, I worked closely with the market research and product development teams. The proliferation of digital technologies had yet to start, and most organisational processes were manual. Even those processes that used systems involved manual input of data. Working at BPL honed my marketing skills through the development and execution of marketing plans, brand building, and consumer research. Ten years after leaving BPL, I reconnected with the organisation through mini-research projects that involved alcohol consumption in various countries in which BPL operates, which culminated in this study. As I currently do not work with BPL, I am undertaking this study as an outsider. However, my previous work experience with BPL puts me in a unique position as a hybrid action researcher, previously an insider, currently an outsider.

Being a former employee gives me an advantage in understanding how the organisation works. My prior knowledge is beneficial in understanding the tasks involved within MO and NPD and the extent of digitalisation. At the same time, prior knowledge can potentially introduce biases to the study as preconceived ideas emanate from past experiences. To avoid such bias, I noted all my preconceptions in a journal which I later compared with the findings from the study. I found out that the areas I thought would be problematic for BPL were not, and, therefore, my biases did not affect the study results. I explain biases in a wider context in section 3.8.2.

1.1.1 The Road to Digitalisation at BPL

The digitalisation of BPL's operations aims to foster a faster collection of market data, which is necessary for developing insights. The initiative targets the commercial functions of the business—the two customer-facing functions of sales and marketing. As early as 2012, BPL collected market data through the Distributors Management System (DMS). In 2018, BPL introduced a way of doing things named EDGE (Every Day Great Execution) with the intention of more straightforward, faster, and excellent execution of its selling function. EDGE is a global initiative from the parent company piloted in three global markets, including BPL's market. EDGE aims to use analytics to empower and focus the sales teams for excellent in-market execution. The data gathered from the market is analysed for insights by the back-office sales support teams and shared with the front-line salespeople. EDGE separates the roles of the front-line and back-end teams, removing the burden of translating data into insights from the front-line team, thereby simplifying their roles to focus on selling. The sales teams collect data in the marketplace relating to BPL, such as sales per outlet, product assortment, and market share. The data collected from the retail trade is then compared with what BPL sells to its distributors and becomes a source of valuable insights into consumption trends in the country. DMCs offer BPL the capability to translate market data into insights using analytics software.

The digitalisation project at BPL is sponsored by the parent company, which has a team of dedicated senior executives in its head office monitoring the progress of the subsidiaries and offering assistance where necessary. The parent company picks the systems to be used by all its affiliates globally for economies of scale and synergistic reporting. However, individual enterprises can purchase integration systems if they have unique needs or metrics peculiar to their markets. For example, BPL purchased the system TRAX to measure the share of shelf and forward share. One of the enablers of digitalisation at BPL is that it operates in a country with high internet penetration and usage.

On the marketing side, traditionally, the firm's customer engagement was primarily through traditional media, namely, TV, Radio, Billboards, and Print, with digital mediums accounting for only ten per cent. However, technology-savvy consumers expect firms to communicate more frequently (Henriette, Feki & Boughzala, 2016). The implication for BPL has been to increase direct consumer engagement through digital platforms, which has since risen to forty per cent within two years.

1.1.2 Market Orientation at BPL

BPL has a market orientation (MO) approach by studying the market to understand the consumers, customers, and competitor trends to design appropriate responses. To understand the market, the firm collects market data through third parties and its salesforce and monthly tracks competitor activity, customer trends, regulation, and economic changes. The company seeks to market products to the 24–35-year-old as its primary target consumer. This target group is commensurate with the younger adult population in BPL's market. The organisation employs a digital marketing team of young, upwardly mobile professionals who use and consume the same

media as the core audience. The tactic enables BPL to reach the right audiences using relevant messages. The effectiveness of BPL's communication with its target audience relies on accurate insight generation, faster speed to market, and execution excellence. Technology enables BPL to move goods faster and have a seamless collection and analysis of market data. The company has embraced the contemporary consumer's digital culture and created digital platforms for both consumers and retailers. The objective is to enable the organisation to plan for consumption occasions and ensure the availability of products in the right places at the right time.

1.1.3 New Product Development at BPL

According to Cooper, Edgett & Kleinschmidt (2001), portfolio management is the ultimate driver of success in new product development (NPD). Portfolio management refers to the ability to identify and develop products today that become tomorrow's winners, driven by resource allocation and a good business strategy (ibid). However, organisations encounter challenges in NPD due to changes in consumer needs, technological changes and likely competitor responses, leading to complex, uncertain, unpredictable and sometimes long NPD projects (Bianchi, Marzi & Guerini, 2020).

BPL makes decisions regarding NPD based on the size of the opportunity and its ability to act and fill the market gap. On average, the product development process at BPL takes eighteen months from ideation to commercialisation. Since there is a dynamic and rapid shift in the needs of consumers, the market itself and new players, longer lead times could mean that goods and services fall out of demand faster than before. Scholarly opinions such as that by Warner & Wäger (2019) in the field highlight the need to focus on developing more products in the short term rather

than the long term. The implication is a need for faster, more flexible, and cost-effective NPD processes.

The above context for BPL indicates an established organisation with structures and processes for data gathering and NPD processes. Also, an organisation that has identified the need to digitalise its operations to match market realities. At the same time, BPL is operating in a mature, stable market with threats from new global competitors and must develop its DMCs to compete effectively. This study seeks to determine whether digitalisation is useful to organisations in developing DMCs.

The preference for action research as the study's inquiry methodology originates from its collaboration, action-oriented nature, and ability to produce context-specific recommendations (Herr & Anderson, 2015). AR gives the marketing practitioners at BPL the opportunity to explore and identify organisational dynamic organisational capabilities. Through AR iterations and individual reflection, we implemented an intervention and developed recommendations for further development of the weaker capabilities. AR uses collaboration to construct new meanings for an organisation that practitioners can enact. The following section covers the conceptual context which guided this study.

1.2 Conceptual Context

The DC concept was originally developed by Teece & Pisano (1994) and later expanded by Teece, Pisano & Shuen (1997), and explains how firms achieve sustainable competitive advantage. The DC concept has continued to evolve into new applications, including accommodating digital technologies in its implementation endeavours (Fainshmidt et al., 2016;

Jacobi & Brenner, 2018). The proponents of RBV argue that companies need to have valuable, rare, inimitable, and non-substitutable (VRIN) (Eisenhardt & Martin, 2000) resources for sustainable competitive advantage. Moreover, having such resources is believed to result in a strong performance and competitive advantage (Ambrosini, Bowman & Collier, 2009).

Technological advancements make it possible for the digitalisation of firms (Ellström et al., 2021). Digitalisation occurs when firms apply digital technologies to develop new business models essential to creating fresh, suitable, and improved value (McLaughlin, 2017). Digitalisation aims to give value to a business entity (Verhoef et al., 2021) and enhance its competitive advantage (Liu, Chen & Chou, 2011).

Before the advancement of technologies based on digital frameworks, firms relied on non-tech tools to engage in strategic processes that saw them create and sustain differential advantages (Matt, Hess & Benlian, 2015). However, traditional tools were resource-consuming in terms of time, finances, and human input. As advanced technologies continue to be actualised, it has been identified that they can provide essential imperatives that facilitate high-quality and rapid development of DCs using fewer resources (Warner & Wäger, 2019). However, this recognition is being invalidated by the discovery of the complexities that typify advanced technologies (Matt, Hess & Benlian, 2015). Digital technologies can be customised to alleviate complexity concerns, making them user-friendly for people from varied technological backgrounds.

Several studies state that DCs are the foundation for strategic change, such as digitalisation efforts, because they enable firms to alter their resource base and respond to environmental dynamism (Eisenhardt & Martin, 2000; Teece, 2007; Warner & Wäger, 2019). I argue that the

relationship is complementary and that digitalisation is an approach through which organisational processes such as the seamless development of DCs can be achieved. Digital technologies introduce efficiency and effectiveness in organisations (Heavin & Power, 2018). According to Warner & Wäger (2019) and Marion & Fixson (2021), digital solutions available today provide organisations with more sophisticated functionalities and are easier to use and integrate into organisational processes.

1.3 Problem Statement

The importance of DCs cannot be discounted, particularly in the current century, characterised by notable technological advancements (Warner & Wäger, 2019). For academia, although the DCs framework has been studied for over two decades, scholars have only recently begun paying attention to the study of DMCs and their influence on firm performance (Bruni & Verona, 2009; Fang & Zou, 2009; Day, 2011). An incessant public debate on the role of the marketing function in organisational strategy has stirred this recent interest. Marketing scholars opine that the marketing function can significantly impact a firm's strategy through market analysis and the application of marketing capabilities (Durukan & Hamşioğlu, 2016).

From a practitioner perspective, companies develop DMCs to improve organisational performance and establish a sustainable competitive advantage (Xu et al., 2018). When digital disruptions threaten to render the existing skills and resources within firms obsolete, the need to shift focus to the underlying organisational capabilities is crucial (Ellström et al., 2021). The changes in the environment require that existing marketing resources become dynamic, enabling the firm to respond to the turbulent market (Day, 2011). Outdated DCs cannot support a digital

business model because the strength of DCs present in a firm determines the proficiency of its business model (Teece, 2018b).

Digitalisation's role in revolutionising business processes is evident in extant literature. Jacobi & Brenner (2018) found that some industries, especially media and telecommunications, have struggled to adjust to the changing environment for years, and now the disruption is extending to traditional industries. These authors point out that over half of Fortune 500 companies have been replaced by peers in the last twenty years, majorly owing to a lack of digitalisation. They further opine that for most companies that want to survive, the only way is to transform their enterprise digitally.

Despite its importance for firm survival, most organisations fail to achieve the full potential that digitalisation offers (Ellström et al., 2021). Additionally, those that do neglect to make enough changes to organisational processes to fully capture the benefits (Parviainen et al., 2017). The reason for increased failure in developing DMCs is that leaders do not create a sufficient sense of urgency to compel managers to prioritise digitalisation as an enabler of capability development (Fitzgerald et al., 2014). Furthermore, Schwertner (2017) found that digitalisation is likely to be delayed by risks that negatively influence the broader adoption of digital technologies, such as the difficulty of integrating new technologies with existing organisational systems. Other issues negatively affecting technology adoption include data security and a lack of effective control mechanisms (Schwertner, 2017). Despite the challenges of developing DMCs through digitalisation, existing research has not adequately elucidated how such problems can be overcome to enhance organisational performance.

Developing DMCs is essential to BPL because of the increasingly dynamic environmental conditions under which it operates, the most significant being rapid technological advancements, changes in consumer tastes and preferences, changes in market structure, and threats from non-traditional competitors. New technologies available in the local market in which BPL operates allow organisations to collect and process data faster. BPL must therefore update its technologies to remain competitive. Additionally, there is pressure on organisations to track rapidly changing consumer tastes and formulate fast response mechanisms. The traditional market structure of selling through bars is changing, with more and more consumers now preferring to purchase directly from manufacturers or small neighbourhood merchants for off-trade consumption. The nature of competition has also changed. While other alcohol manufacturers remain a threat, the more significant challenge is competing for consumers' limited resources with other priorities.

These environmental changes present both opportunities and threats, necessitating a change in how BPL operates. A practical, fast and effective response to market dynamism can be achieved by developing DCs using new digital technologies. DCs enable firms to create, extend or modify resources (Helfat et al., 2007) to reposition the firm. Furthermore, developing DCs allows the firm to maintain a level of competence adequate to respond or adapt to challenging environmental contexts.

1.4 The Rationale for the Study

Digitalisation is a relatively new concept in marketing whose application is still in its infancy. Most firms that develop DMCs tend to put digitalisation at the periphery because of its novelty and the uncertainty regarding its role in enhancing the use of available resources to execute marketing strategies (Weerawardena, Mort & Liesch, 2019). Therefore, there is a need for more

empirically grounded information on digitalisation's role in marketing to develop DMCs. This study is founded on three observations: a) that DCs can be a source of firm competitiveness (Teece, Pisano & Shuen, 1997): b) that digitalisation is imperative for businesses that want long-term sustainability (Chirumalla, 2021): c) that existing literature does not provide an adequate explanation of how DCs can be built through digitalisation (Peteraf, Di Stefano & Verona, 2013; Fitzgerald et al., 2014). There exists an opportunity to use technology to digitalise and improve DMCs. The objective is to digitalise the processes that support the DMCs, enabling the organisation to respond faster to environmental changes for competitive advantage (Teece, 2007). For example, at BPL, there is an opportunity to consolidate data into a single central database and generate better insights faster.

The study adopts a qualitative approach to collect and analyse in-depth data to generate an understanding of individual participant views, attitudes, and feelings towards developing DMCs through digitalisation. The findings from this study will create actionable knowledge for managers and scholars. The results will help identify digital technologies supporting the development of MO and NPD. MO and NPD are critical DMCs for BPL since MO gathers market data as the basis for insights that inform product development to meet ever-changing consumer needs. The study seeks to first identify the DMCs operational within MO and NPD at BPL and how they could be further developed. The organisation will benefit from the additional capability development by improving performance and enhancing its competitive advantage. Using the study's findings, firm managers will also identify ways to reconfigure resources to respond to market dynamism in the future.

1.5 Aims and Objective of the Study

This action research combines the practical aspect of finding technologies that can further develop DMCs at BPL with an enquiry. The two processes of research and action are connected by a continuous process of critical reflection (Costello, Conboy & Donnellan, 2015). The study aims to identify ways to develop DMCs in MO and NPD using digital technologies. These capabilities are essential in enabling the firm to react positively to changes in the market caused by disruptive technologies and changing consumer needs. Therefore, this study aims to develop DMCs through digitalisation. To achieve this task, I set the following objectives:

I. To identify the benefits of digitalisation in response to digital disruption.

II. To identify the role of DMCs towards firm competitiveness and response to market dynamism

III. To develop DMCs through digitalisation to effectively respond to market dynamism

1.6 Scope

The study is scoped conceptually, contextually and methodologically. Conceptually, the study focuses on the concepts of DCs and digitalisation as the key phrases and words on which the study is founded. The study focuses on secondary concepts, including organisational performance and sustained competitive advantage. The context of the study is a large multinational, specifically the sales and marketing departments responsible for gathering market data, developing new products and availing those products to different consumer groups. Methodologically, the study

entails primary research involving the collection of qualitative data using semi-structured interviews with purposefully selected employees.

1.7 Structure of the Thesis

This study is divided into six chapters. An introductory chapter, which presents the background to the problem and the organisational context, identifies the research problem, highlights the aims and objectives of the study and defines the scope of the study. Chapter two is a critical literature review, analysing past studies and bringing the main concepts together in a conceptual framework. Chapter three is a methodological chapter that identifies and justifies the methods, approaches, and techniques adopted for data collection, analysis and interpretation. Chapter four presents the findings, while chapter five attributes meanings to the findings based on my knowledge, experience of BPL and marketing in general, and supported by extant literature. Chapter five also offers actionable recommendations to BPL and implications for wider practice. Finally, chapter six concludes by demonstrating that the study objectives have been answered and offers a reflection on my learning journey as a scholar-practitioner.

1.8 Summary

This first chapter presents the organisational context of BPL, a leader in the alcoholic beverages industry. It highlights the organisational challenges the company faces in an increasingly dynamic environment and presents an opportunity that the organisation has identified to develop DMCs in MO and NPD using technology. Developing DCs is presented as an effective response to BPL's challenging context, and the DC concept is expounded as a means for achieving sustainable competitive advantage. The necessity for research to establish more empirically grounded

information on digitalisation's role in developing DCs is established. The choice of qualitative action research as the study's inquiry methodology is justified as most appropriate to create actionable knowledge. Finally, the study's aim to develop DMCs through digitalisation is identified, and the objectives for accomplishing this are set. The next chapter presents a literature review interweaving relevant concepts and theories and unpacking the potential complexities of developing DMCs using new technologies.

2 CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

This review critically analyses extant literature on DCs and digitalisation as complementary activities for firm competitiveness and survival. Importantly, the literature review revolves around the study's objectives, which seek to identify and develop DMCs through digitalisation in response to market dynamism.

Several investigations have found that DCs transform a firm's resources, including the business model, to respond to environmental dynamism (Teece, 2007; Warner & Wäger, 2019). DCs indicate a 'firm's ability to integrate, build, and reconfigure internal and external competencies to address rapidly changing environments (Teece, Pisano & Shuen, 1997, p. 516; Pundiziene et al., 2022, p. 113). In most organisations, DMCs become the foundation for developing other firm-wide capabilities (Catlin, Scanlan & Willmott, 2015).

Digital transformation denotes the application of digital technology to underpin the significant evolution of a firm's business model and capabilities on top of other socio-cultural factors and shifts. Digitalisation, on the other hand, occurs when digital technologies alter a firm's model and find new revenue opportunities (Westerman et al., 2011; Ng, Tan & Lim, 2018; Vogelsang et al., 2019). Digital technologies can enhance customer experience and bring efficiencies to business operations (Fitzgerald et al., 2014). However, for that to happen, firms need to integrate technology with the underlying organisational capabilities (Carcary, Doherty & Cornway, 2016).

Central to this study is the conceptual framework that links the concepts mentioned above and discussed in this literature review. The conceptual framework is founded on the concepts espoused by Teece (2007; 2018a) and Barrales-Molina, Martínez-López & Gázquez-Abad (2014). Teece (2007; 2018a) contends that DCs aid a firm sense and seize environmental changes. Barrales-Molina, Martínez-López & Gázquez-Abad (2014) argue that MO and NPD are the critical DMCs for contemporary competitive advantage.

Figure 1 is a diagrammatic representation of the connections between the central concepts in this study, including digitalisation, MO, NPD and firm competitiveness.

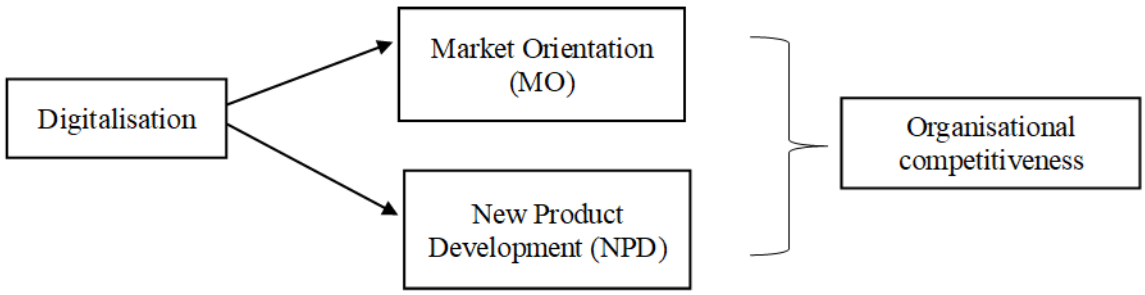

Figure 1: Link Between Digitalisation, DMCs and Firm Competitiveness.

The figure above shows that digitalisation can facilitate the development of two DMCs, MO and NPD. By introducing efficiency, speed and innovation, digitalisation enables firms to adapt, rapidly respond to environmental changes, and remain competitive (Björkdahl, 2020).

The following topics are discussed in this chapter to explain the above concepts in detail. The need for change in section 2.2 shows why organisations like BPL must act fast in response to environmental dynamism. Section 2.3 covers digitalisation, illustrating how technology impacts business models and the different paths available to managers towards digitalisation. The need for organisational agility during digitalisation, the emerging new technologies and challenges encountered as firms endeavour to digitalise are also covered. Section 2.4 expounds on DCs and their influence on firm performance. Using Teece's (2007; 2018a) argument, the three main types of DCs are explained, including their development and the attendant challenges. Section 2.5 focuses on MO and NPD as the two DMCs under study, while section 2.6 illustrates the conceptual framework. Finally, sections 2.7 and 2.8 discuss the enablers of digitalisation and the influences on DC development, respectively. This review aims to establish how DCs are developed, their ability to enable organisations to respond to market dynamism and the link to firm performance. An ongoing digitalisation project at BPL aims at improving its processes. The project involves faster data collection and data consolidation from various sources to generate more insights to improve MO and NPD.

2.2 Need for Change and Firm Competitiveness

Today's organisations operate in highly dynamic and complex environments due to changing economic, social, and technological surroundings (Schoemaker, Heaton & Teece, 2018). As Warner & Wäger (2019) observe, the last decade has been characterised by rapid change,

unprecedented levels of disruptive competition, new digital technologies, and unpredictable consumer behaviour. Consequently, to remain competitive, firms must identify and develop or renew specific resources and capabilities to support the gathering of market information and offer the flexibility to respond rapidly to environmental changes (Teece, 2018a). Identifying and developing DMCs requires extensive research and development to determine the firm's needs. This is true in the alcoholic beverage industry, characterised by cut-throat competition and highly dynamic market trends.

As highlighted in section 1.1, BPL operates in an intensely competitive environment. The firm's ongoing digitalisation initiative has already adopted several systems and platforms within its sales and marketing departments to improve core processes. For example, the DMS system provides the organisation with all sales data. TRAX, a different system linked to DMS, gives pictorial data on shelf share, SKU assortment, and competitors' trade activities. Consumer trends are changing, and home consumption is rising due to COVID-19. BPL can mine its rich data for insights to inform its NPD, which is increasingly vital for competitive advantage.

To identify the sources of a firm's competitive advantage, researchers analyse two contrasting perspectives; the market-based and the resource-based views (McGee, 2015). The market-based view discusses competitiveness as originating from outside the firm, with the most competitive firms understanding and fulfilling market and customer needs better than rival firms (Day, 2011). On the other hand, the resource-based view is an inside-out perspective that explains competitiveness as originating from the VRIN resources (Eisenhardt & Martin, 2000; Furr & Eisenhardt, 2021), which are internal to a firm (Barney, Ketchen & Wright, 2011). Further, firms in an industry are heterogeneous due to their non-transferable internal resources, which are also the source of their competitive advantage (Barney, Ketchen & Wright, 2011). When comparing

the outside-in and the inside-out perspectives, proponents of the resource-based view (RBV) point out that most organisational resources are internal, and firms should focus internally and not externally (Hunt & Madhavaram, 2020). The RBV has, however, been criticised as being tautological, static, and limited in explaining how firm capabilities develop or evolve (Day, 2011). Furthermore, with RBV, firm resources break down in high-velocity environments (Wilden & Gudergan, 2015), which is characteristic of today's markets.

Weerawardena & Mavondo (2011) identify innovation as a critical contributor to competitive advantage. My preference, however, to study DCs instead of innovation is based on understanding the difference between the two. In particular, DCs offer a direct competitive advantage to the firm (Teece, 2014), while innovation only becomes a source of competitive advantage when executed holistically as product, business model, service, and process innovation (Govindarajan & Desai, 2013). Moreover, DCs offer a broader perspective that covers cross-functional business processes (Xu et al. 2018).

This literature review broadly analyses the practical aspects of digitalisation and the DC concept. Thus, it pays more attention to how firms use digitalisation to develop DMCs, uncovering the associated challenges and solutions. As a result of the world increasingly adopting digitalisation, firms have to build new capabilities and strategies to capture value (Truant, Broccardo & Dana, 2021). Using the literature insights and in-depth interviews with firm employees, I identify and recommend specific technologies that can enhance the development of capabilities within MO and NPD at BPL.

2.3 Digitalisation

As stated earlier, this research aims to develop DMCs through digitalisation. This section covers what digitalisation entails for incumbent firms and the accruing benefits while highlighting the challenges firms are likely to encounter in the process.

Digitalisation is widely considered the fourth industrial revolution (Björkdahl, 2020), as evidenced by the increased use of digital technologies and their integration with an organisation's business model and value chain (Schallmo, Williams & Boardman, 2017; Björkdahl, 2020). The goal is to improve internal efficiencies, produce better products, and deliver superior customer value (Valenduc & Vendramin, 2017; Galindo-Rueda et al., 2019; Björkdahl, 2020). Digitalisation is a form of experimentation (Westerman et al., 2011) and mandates a renewal of key DCs (Osterwalder & Pigneur, 2010; Barrales-Molina, Martínez-López & Gázquez-Abad 2014; Teece, 2016; Ng, Tan & Lim, 2018).

As aforementioned, digitalisation uses DCs to transform an organisation's resources and change the business model (Warner & Wäger, 2019). I, however, argue that the relationship is complementary and that digitalisation can also lead to the development of DCs. This thesis rests on the assumption that a firm's business model affects its DCs. At the same time, firms must develop DCs that can rapidly modify their business models (Teece, 2018b). Therefore, if digitalisation entails integrating technology into a firm's business model, then such an integration influences the development of its DCs. Additionally, DCs forged in historically different contexts struggle to support a digital business model (Reis et al., 2018). Therefore, digital tools should renew the DCs before the capabilities can transform the resource base and respond to digital disruptions.

When pursuing digitalisation, firms can adopt different strategic options. Examples include digital leadership, digitalisation of processes, digital marketing, big data analytics, data-empowered decision-making, and supply chain optimisation (Crossan & Apaydin, 2010; Catlin, Scanlan & Willmott, 2015). In addition, companies adopt digital solutions to improve operational efficiency and effectiveness (Bilgeri, Wortmann & Fleisch, 2017). Furthermore, Wessel & Christensen (2012) opine that digital solutions enhance workers' skills. Digital solutions are also known to support critical organisational activities such as strategic planning, problem-solving, and decision-making (Carlsson, 2018). Specifically, with NPD, digitalisation enables rapid prototyping, reduction in operating costs, and high rates of innovation cycles (Plekhanov & Netland, 2019). Lastly, Remane et al. (2017) identify that digitalisation aids in the ubiquitous connectivity of products, customers, infrastructure, and companies.

According to Autio et al. (2018), digitalisation requires firms to adopt a more entrepreneurial spirit due to the strategic imperatives of advanced digital technologies. However, unlike entrepreneurship which may involve starting a business from scratch or adding a business unit to an existing business, digitalisation is an improvement to business processes aimed at improving customer value (Björkdahl, 2020). With advanced technologies, customers are calling for real-time responses to their requests (Paliouras & Siakas, 2017). Hence, firms may not succeed in creating customer value if they do not adopt responsive and efficient cross-functional business processes.

2.3.1 Agility

Emerging disruptive technologies and the ongoing VUCA environment (Bennett & Lemoine, 2014) necessitate organisations to be agile for competitiveness and survival (Bresciani

et al., 2022). Organisational agility (OA) is a firm's ability to detect, respond, thrive and compete in an environment with rapid, relentless and uncertain changes (Lu & Ramamurthy, 2011; Felipe et al., 2020). Agility fosters innovation and influences firm performance (Troise et al., 2022). Agility means operational and strategic flexibility (Haider et al., 2021) and demands an ongoing development of capabilities (Holbeche, 2018). There are varied views on the relationship between agility and digitalisation. Some studies state that digitalisation promotes agility (Hadjielias et al., 2022), while others suggest that firms capitalise on digital technologies when their agile capabilities are deployed (Chan et al., 2019).

2.3.2 Technology

Technology is crucial in business improvement (Cavalcante, 2013; Christensen, 2013). The studies show that technology is instrumental to the success of both start-ups and established companies. Empirical literature makes solid recommendations for companies to conduct careful analyses of their commercial potential and adjust their business models per the dynamics of the business environment. According to Cavalcante (2013), successful business models can fail at the advent of new technologies. Technologies such as the Internet of Things (IoT), Big Data Analytics (BDA), Digital Twin (DT), Artificial Intelligence (AI), and Cyber-Physical Systems (CPS) are disrupting businesses in the 21st century (Liu et al., 2020). These technologies enhance the capability of firms to attend to threats and opportunities in the commercial environment.

The number and types of technologies available are increasing the opportunities for businesses to succeed through resource optimisation, cost reduction, increased worker productivity, optimising supply chains, and enhancing customer loyalty (Kagermann et al., 2015; Loebbecke & Picot, 2015). Companies are accelerating significant data analytics initiatives to

identify critical insights to enhance their competitive advantage. Most companies regard big data analytics as a breakthrough technological development; however, research has yet to conclusively determine the conditions under which big data analytics fosters competitive advantage. For example, Mikalef et al. (2020) cite a recent survey involving Fortune 1000 companies that confirms significant success variations, despite the enthusiasm for big data. While the micro-foundations of DCs can significantly benefit from the big data phenomenon, Artificial Intelligence (AI) is expected to exhibit more prominence in the future of business operations (Mendonça & Andrade, 2018b).

2.3.3 Technology Adoption

Emerging technologies such as social media and artificial intelligence (AI) continue to influence organisations and society. These new technologies have numerous benefits, such as faster insights-driven decision-making. However, despite the advantages, technology adoption and diffusion into businesses fall below expected levels, at only 23% globally, for AI (Ransbotham et al., 2017). The theories that explain technology adoption within organisations are consolidated into the Unified Theory of Acceptance and Use of Technology (UTAUT) (Venkatesh et al., 2003; Wang et al., 2022). The model explains technology usage based on four dimensions: performance expectancy, effort expectancy, social influence, and facilitating conditions (Wang et al., 2022). According to the model, the intention to use technology is influenced by how users expect it to perform, the effort required and other social factors (Cao et al., 2021). Furthermore, adoption affects employee motivation and performance and requires top managerial support, given the need for employees to develop new technical skills to adopt new technologies effectively (Uren & Edwards, 2023).

BPL has adopted and integrated various technologies into existing marketing and sales operations to improve efficiency and customer experience. Given its past NPD success, the organisation is ahead of other industry players. Still, given the changing consumer demands, more advanced technologies could give it an unparalleled advantage. Below, however, are the challenges that firms like BPL aiming to digitalise encounter.

2.3.4 Digitalisation Challenges

Despite digitalisation being a crucial element in business ecosystems, it poses significant challenges. Autio et al. (2018) describe one of the challenges as the balance between exploiting existing capabilities and, at the same time building new ones, which calls for ambidexterity (Hess, 2020). Organisational ambidexterity and agility are recognised as necessary conditions for the successful transformation of businesses (Hess et al., 2016), which means their absence is a challenge.

Similarly, two other significant barriers to digitalisation are inertia and resistance to change (Vial, 2019). Inertia occurs when existing capabilities and path dependence constrain innovation and disruption caused by digital technologies (Srivastava & Shainesh, 2015; Svahn, Mathiassen & Lindgren, 2017). For example, firms with longstanding relationships with suppliers and customers suffer inertia during technological disruption. In the same way, employees can resist new technologies or reject the changes that those technologies introduce (Kane, 2016; Singh & Hess, 2017). Resistance takes many forms and has many causes. For example, employees may sometimes experience fatigue if there are frequent technological changes (Fitzgerald et al., 2014). In other circumstances, resistance may be caused by longstanding inertia and organisational culture (Schmid, Recker & von Brocke, 2017). To eliminate such inertia, a change to organisational

processes is necessary. Additionally, not fully appreciating the accruing benefits of new technologies can cause resistance (Svahn, Mathiassen & Lindgren, 2017), while explaining the benefits resolves the issue (Vial, 2019).

Heavin & Power (2018) identify conflicting priorities, a lack of data and resources, and the need to balance data security and accessibility as potential derailers of digitalisation efforts. Other challenges that affect the success of digitalisation include poor leadership, lack of vision and critical skills (Vattenfall Heat & KPMG, 2018). These challenges make digitalisation a complex undertaking that requires an integrated approach covering an organisation's structure and operations (Matt, Hess & Benlian, 2015).

The factors mentioned above impact digitalisation efforts by preventing process improvement and, consequently, the development of DMCs. However, digitalisation cannot be ignored in the modern-day business arena, given its crucial role in creating customer value and improving business operations (Rachinger et al., 2018; Nambisan, Wright & Feldman, 2019). Thus, identifying these challenges at BPL will ensure that the necessary mitigating factors are implemented. For example, from experience with the organisation, I anticipate two challenges: the need for ambidexterity (Hess, 2020) and resistance to change.

2.4 Dynamic Capabilities

The DC concept is increasingly influential in strategic management (Hodgkinson & Healey, 2011; Di Stefano, Peteraf & Verona, 2014; Barrales-Molina, Martínez-López & Gázquez-Abad, 2014). Although there are some links to the concept in earlier literature, it gained prominence post landmark work done by Teece, Pisano & Shuen (1997). The authors assert that

an organisation's competitive advantage rests on its ability to 'build, reconfigure, [and integrate] internal and external competencies/resources' in line with the environment (Teece, Pisano & Shuen, 1997, p. 516; Teece, 2017, p. 212). Scholars use the term dynamic to mean the capacity to renew competencies and capability to denote the role of a firm's strategic management skills and resources. Based on the description above, DCs involve firms aggregating routines that enable organisations to achieve new configurations of resources (Winter, 2003; Mousavi, Bossink & van Vliet, 2018).

The DCs theory continues to gain prominence in the strategic agenda but remains multifaceted because the body of literature is sometimes contradictory. For instance, interest in the subject has produced distinct definitions by scholars such as Teece, Pisano & Shuen (1997), Eisenhardt & Martin (2000), Winter (2003), Helfat et al. (2007), Helfat & Winter (2011), Teece (2018a). However, the most significant distinction in conceptualising DCs exists between (Teece, Pisano & Shuen, 1997; Teece, 2018a) and (Eisenhardt & Martin, 2000). Teece and his fellow scholars assert that DCs are complex learned organisational routines that positively impact performance in quickly changing environments. On the contrary, Eisenhardt & Martin (2000) state that codified routines disadvantage firms in high-velocity markets and suggest that high-volatility markets demand simple and experiential processes. They also assert that DCs are merely organisational processes or best practices and are homogeneous and substitutable.

Ringov (2017) and Di Stefano, Peteraf & Verona (2014) offer a contingency approach that states that the contribution to firm performance by codified capabilities depends on the complexity of the firm's asset base and the heterogeneity of dynamism exposure. In other words, while it is empirically tested that the value of codified routines declines as volatility increases, their value can also increase when the asset base is highly complex and depending on how the individual firm

limits its dynamism exposure. Another argument that I agree with is that DCs suitably evolve to cope with an organisation's tasks or environment, which means that companies operating in dynamic environments develop stronger capabilities (Fainshmidt, Nair & Mallon, 2017).

Importantly, firms need to distinguish dynamic from ordinary capabilities. Ordinary capabilities enable organisations to offer distinct goods and services, while DCs enable the renewal of those ordinary capabilities (Teece, Peteraf & Leih 2016). Thus, ordinary capabilities allow firms to accomplish predefined tasks with a predetermined degree of proficiency. However, this means that ordinary capabilities neither influence the growth of firms nor help organisations respond to market volatility. DCs transcend ordinary or operational capabilities as they are meta-competencies that allow for long-term, superior innovation (Zahra, Sapienza & Davidsson, 2006; Helfat & Winter, 2011; Cheng, Chen & Huang, 2014)). However, Karna, Richter & Riesenkampff (2016) have a contrasting view and state that both ordinary and dynamic capabilities influence firm performance.

2.4.1 Dynamic Capabilities and Firm Performance

Scholars evaluate the importance of DCs from different angles. For example, some empirical investigations use firm performance as the core outcome of developing DCs, while others focus on processes as organisational outcomes (Eisenhardt & Martin, 2000; Pezeshkan et al., 2016). DCs can be copied and cannot offer firms a long-term competitive advantage, but they create value by enabling resource configurations (Eisenhardt & Martin, 2000; Johnson et al., 2014). However, there is evidence that firms with similar resources perform differently, attributable only to the difference in their DCs (Zahra, Sapienza & Davidsson, 2006; Lin & Wu, 2014). Teece (2007) acknowledges the role DCs play in influencing firm performance, asserting

that success comes from best practices embraced by an organisation, the readiness to invent new business models, the willingness to make unbiased decisions and the extent to which an organisation can protect against imitation and all forms of replication by competitors.

In another study, Teece (2018b) points to the interdependence between business models, strategy, and DCs, asserting that DCs strongly influence firm performance. Other researchers who consistently link competitive advantage and performance to DCs include Winter (2003); Helfat & Peteraf (2003); Ferreira, Coelho & Moutinho (2020). The presence of DCs is evidence of a firm's ability to adopt new business models seamlessly (Dottore, 2009; Teece, 2018b). Based on the assertions by Mezger (2014) and Teece (2018a), DCs encompass a learning approach to sense, seize, and reconfigure resources, thereby enabling firms to adapt to changes and remain aligned with the business strategy.

The central tenet of this study is how to develop DMCs. To expound on the concept of DCs espoused by Teece (2007; 2018a), their three main functions of sensing, seizing, and reconfiguration are explained in the following sections.

2.4.2 Sensing

Sensing as a core function of DCs helps firms to collect and analyse customer, technological and market data; detect evolving trends; and assess opportunities and threats (Teece, 2007; 2018a). By sensing, businesses can address significant limitations to their competitive advantage. Sensing is achieved through scanning, searching, and exploring environmental variables across markets and technologies. Pavlou & El Sawy (2011) identify three fundamental tasks firms perform with the sensing capability: generating, disseminating, and responding to

market intelligence. Developing market intelligence involves observing the trends and detecting opportunities and threats in the environment (Elsharnouby & Elbanna, 2020). By analysing and interpreting market trends and events, firms can disseminate the intelligence critical for decision-making to the rest of the organisation. Moreover, such intelligence forms the basis for developing actions that help firms seize opportunities and avoid threats.

Firms with superior market sensing capabilities can accurately predict competitor responses to their strategic approaches (Leeflang et al., 2014). Importantly, Teece, Peteraf & Leih (2016) recognise the role that scenario planning plays in ensuring proactive sensing. According to Teece (2007; 2018a), sensing capabilities include processes that guide the implementation of internal research and development, selection of new technologies, innovation, and identification of target market segments.

2.4.3 Seizing

After sensing, firms engage in seizing. Seizing is recognised as developing 'enterprise structures, procedures, designs, and incentives' (Teece, 2007, p.1334) and concerns how fast an organisation can respond to both opportunities and threats (Teece 2018a). The sub-capabilities of seizing include strategic agility, rapid prototyping, and portfolio balancing (Velu, 2017). Seizing activities involve developing new technologies or business models that enable firms to set decision-making protocols and build customer loyalty and commitment (Teece, 2018b). Notwithstanding, path dependencies interfere with seizing by severely impeding experimentation. Teece, Peteraf & Leih (2016) also showcase that the seizing capability is strongest in agile firms and those that exhibit self-organisation. As regards digitalisation, Warner & Wäger (2019) argue

that technology is changing how organisations seize opportunities through their potential to facilitate faster NPD, foster better customer relationships, and scale-up operations.

2.4.4 Reconfiguring

Sensing and seizing capabilities help identify and exploit opportunities, but a transformation is needed for firms to realise the full potential of these opportunities (Day & Schoemaker, 2016). Teece (2018a) argues that reconfiguration entails adjusting an organisation's internal workings to the external environment. Internally, reconfiguration capabilities support the design and adaptation of new structures and processes (Rachinger et al., 2018). Externally, reconfiguration enables the firm to shape the competitive landscape and market structures through innovation and asset orchestration (Teece, 2007; 2012). The reconfiguration capability is most useful when drastic changes are required (Teece, 2014) or to achieve semi-continuous asset orchestration and renewal (Warner & Wäger, 2019). From a managerial point of view, the skills necessary to sense differ from those needed to seize or reconfigure (Mezger, 2014), and firms should plan their skill set accordingly.

Reconfiguration capabilities include decentralisation, co-specialisation, governance, and knowledge management (Teece, 2007; Eriksson, Norrman & Kembro, 2022). Decentralisation entails creating loosely coupled structures and open innovation. Co-specialisation ensures that the firm develops a strategic fit for optimal asset reconfigurations. Governance minimises agency issues relating to rent dissipation, while knowledge management deals with knowledge creation, transfer, and integration within a firm as a basis for firm renewal. Reconfiguration capabilities originate from the entity's ability to navigate ecosystems, redesign organisational structures, and

attain digital maturity (Warner & Wäger, 2019). The statement above is especially true when understood from a digitalisation perspective.

Although literature espouses DCs as the ability to sense, seize and reconfigure resources (Teece, 2018a), this study focuses on sensing and seizing capabilities, as their development and impact are short to mid-term. The reconfiguration capability is developed on a longer-term continuous basis and often comes at a later stage of organisational change.

2.4.5 How DCs Develop and the Role of Managers

According to Teece (2013), DCs can only be built, not bought, which makes them unavailable, inaccessible and problematic for many organisations. To create them, Teece (2012; 2016; 2018b) acknowledge the entrepreneurial and leadership roles that senior managers must play in recognising and fostering change in both large and small organisations. Teece (2012; 2019) further state that managers' most critical role in developing DCs involves asset orchestration and renewal. Asset orchestration denotes the 'process by which managers make, build, acquire, deploy, and redeploy decisions with respect to assets/capabilities' (Pitelis & Teece, 2010, p. 1254; Schriber & Löwstedt, 2018, p. 308). The process occurs through four modes: accessing, integrating, developing and releasing (Schriber & Lowstedt, 2020). Therefore, human agency and human capital are essential in the development of DCs (Tran, Zahra & Hughes, 2019). The concept of dynamic managerial capabilities means the capabilities with which managers enable an organisation to achieve its goals and are classified as managerial cognition, managerial social capital and managerial human capital (Adner & Helfat, 2003; Helfat & Martin, 2015).

Several theories explain the emergence and evolution of DCs. For example, they can emerge through the co-evolution of tacit experience with learning mechanisms (Teece, 2018a). These may include knowledge articulation, codification and integration (Zollo & Winter, 2002; Vuori, Laamanen & Zollo, 2022). These mechanisms may also involve knowledge creation, absorption, integration, and reconfiguration (Tran, Zahra & Hughes, 2019). As noted by (Helfat et al., 2007; Stadler, Helfat & Verona, 2022), a firm's DCs reside in its tacit knowledge and organisational processes. Likewise, (Teece, Pisano & Shuen,1997; Teece, 2014) opine that DCs develop with the help of a firm's processes that aid in sensing, seizing and reconfiguration of resources; and organisational learning mechanisms. Similarly, the capability theory explains that the most significant differentiating factor between firms is their entrepreneurial spirit, leadership, and decision-making processes that competitors cannot duplicate (Teece, 2014).

Routines present another mechanism through which organisations develop DCs (Zollo & Winter, 1999; Alves et al., 2021). These routines are embedded into organisational workstreams such as NPD, technology or knowledge transfer, and change routines (Eisenhardt & Martin, 2000; Teece, 2012). The human agency further develops DCs through interactions with organisational frameworks to form routinised functions that lead to capability development (Tran, Zahra & Hughes, 2019). Furthermore, Wang, Senaratne & Rafiq (2015) state that DCs develop through absorptive capacity emanating from factors internal to the firm and not external such as market dynamism. According to Fallon-Byrne & Harney (2017), innovation capability is another critical requirement for the development of DCs.

Scholars such as Peteraf, Di Stefano & Verona (2013) criticise the DC perspective as limiting in explaining how they develop. Dixon, Meyer & Day (2014) opine that there needs to be a precise appraisal of the primary functions and meta-capabilities of DCs. As per Rohrbeck,

Battistella & Huizingh (2015), the specific aspects that need to be sufficiently recognised include recognising early signals of changes and how organisations interpret their capacity to respond ahead of the competition. Similarly, Haarhaus & Liening (2020) agree with Rohrbeck's (2012) assertion that the DC perspective does not have any practical implications for the day-to-day management of businesses.

This section illustrates the need for a clear explanation of how DCs are developed. The different approaches are a challenge to this study and to managers trying to develop organisational capabilities. Besides the different approaches to capability development, other issues managers encounter are covered below.

2.4.6 Challenges Associated with the Development of DCs

Xu et al. (2018) state that DCs have been explored for decades, but their development and operationalisation, including their effect on firm performance, still needs to be quantified in terms of both inputs and outcomes. DCs have long been described as elusive, hidden, abstract, complex, difficult to observe, and sometimes ambiguous concepts (Pavlou & El Sawy, 2011). DCs also lack a concise definition, measurement, or empirical grounding and are tautologically linked to organisational performance (Garrido et al., 2020). The challenge of the lack of a quantifiable outcome based on empirical research may limit the extent to which firms are willing to develop DCs and the amount of information available to address gaps in practical implementation. For DCs to support organisational change and ultimately lead to superior performance, firms must possess the organisational capacity for change and a high level of dynamic managerial capabilities (Widianto et al., 2021).

Another challenge emanates from understanding what constitutes a DC and associated perspectives (Giniunienea, & Jurksiene, 2015). Micro-foundations are a vital construct of the DC theory, helpful to managers in operationalising DCs (Teece, 2012; Argote & Ren, 2012). Micro-foundations of DCs, according to Teece (2013), are the core skills, procedures, rules, and set disciplines that underpin firm-level sensing, seizing, and reconfiguration. Organisations fail to investigate their micro-foundations partly due to their complex, tacit and contextual nature (Teece, 2012). Still, this lack of understanding also means that the competition cannot comprehend the firm's advantage (Messina et al., 2022). External and internal factors to the firm, such as the nature of the market and managerial actions, act as enablers or inhibitors of DCs (Ambrosini & Bowman, 2009; Sunder, Ganesh and Marathe, 2019). Meanwhile, Eriksson (2014) argues that internal antecedents that influence DC creation include structural and social factors, while environmental factors comprise external antecedents. Hence, when firms develop DCs, they need to identify the underlying drivers that are difficult to identify and understand.

DCs are meta-capabilities (Ambrosini & Bowman, 2009; Razzak, Al-Riyami & Palalic, 2022), which means the development of new capabilities can be hampered by a firm's existing capabilities (Zeng, Simpson & Dang, 2017). Additionally, DCs emerge and evolve depending on an organisation's level of development (Zeng, Simpson & Dang, 2017). Managers, therefore, find it challenging to decide which capabilities to let evolve at different times. Ambidextrous leadership is another challenge managers face when exploiting the environment and developing DCs for the future while striving for stability in the present business (Bojesson & Fundin, 2020). Overall, this lack of information to managers provides an impetus for further research to generate knowledge that guides the practical development of DCs.

2.5 Dynamic Marketing Capabilities

The previous section explored DCs in general, highlighting their importance in strategic organisational renewal, while this section moves a step further to analyse DMCs. The sales and marketing departments are vital to seamlessly identify for the firm, the needs and trends of customers, competitors, channels of distribution, and other stakeholders (Barrales-Molina, Martínez-López & Gázquez-Abad, 2014). O'Cass & Weerawardena (2010) describe marketing capabilities as integrative activities crafted to apply a firm's skills, knowledge, and resources to customer needs related to production, pricing, promotion, and placement. Market environments featuring turbulence require well-developed marketing skills founded on strategic orientation (Qureshi & Kratzer, 2011). The core purpose of marketing capabilities is to enable a firm achieve its market and financial goals while simultaneously addressing competitor and technological changes (Alharbi, 2015). Unlike the firm's DCs, which offer the ability to renew competencies and resources (Teece, 2018a).

Roach et al. (2018) explore how marketing capabilities synergistically perform with other organisational capabilities to create DMC*s*. Studies by Fang & Zou (2009); Kachouie, Mavondo & Sands (2018), support the centrality of DMCs in achieving the desired levels of differential advantages.) DMCs are 'human capital, social capital and the cognition of managers involved in the creation, use and integration of market knowledge and marketing resources in order to match and create market and technological change' (Bruni &Verona, 2009, p. s103; Roach et al., 2018, pp 564-565). In this context, market knowledge relates to knowledge about a firm's customers and competition (Kohli & Jaworski, 1990; Roach et al., 2018), while marketing resources are a firm’s tangible or intangible assets, human processes and intellectual property (Davcik & Sharma, 2016).

DMCs differ from ordinary marketing capabilities in their ability to integrate, build, and reconfigure marketing resources to deliver customer value (Weerawardena et al., 2015). DMCs are often firm-specific (Barrales-Molina, Martínez-Lopez and Gazquez-Abad, 2014). Firms integrate resources, knowledge, and skills in idiosyncratic ways, making the capabilities they develop hard to imitate or substitute, which gives them a base for sustainable competitive advantage (Maket & Korir, 2017). Different firms develop different marketing capabilities depending on their strategies.

Elsharnouby & Elbanna (2020) identify MO, innovation, and customer relationship management as crucial DMCs. Wang, Hu & Hu (2013) believe that the three aspects mentioned earlier jointly define a firm's level of competitiveness. In contrast, other marketing scholars generally agree that proactive MO and NPD fall within the essential marketing capabilities (Eisenhardt & Martin, 2000; Barrales-Molina, Martínez-López & Gázquez-Abad, 2014).

Firms follow a sequential order when developing DCs or DMCs (Eisenhardt & Martin, 2000; Ott & Eisenhardt, 2020), which begins with developing foundational capabilities and routines. Using the sequential order as suggested implies that market-oriented firms tend to build DCs within MO first, which then informs the development of other capabilities, such as product development (Chahal & Kaur, 2013)). The following sections, 2.5.1 and 2.5.2, explain in detail the two capabilities that are the focus of this study at BPL. MO is explicated as a sensing capability and NPD as a seizing capability.

2.5.1 Market Orientation (A sensing capability)

MO is a shared organisational mindset that assumes the creation of value for customers yields profitability (Frösen et al., 2016). MO is 'the generation of marketing intelligence and the dissemination of its intelligence across departments, and organisation-wide responsiveness to it' (Kohli & Jaworski, 1990, p. 6; Kirca, Bearden & Hult, 2011). MO internalisation has a cultural aspect and concerns (1) customer orientation, (2) competitor orientation, and finally (3) inter-functional coordination (Narver & Slater, 1990; Kirca, Bearden & Hult, 2011). Furthermore, MO can be reactive or proactive (Randhawa, Wilden & Gudergan, 2020). Understanding customer needs engenders in-depth insights into how to serve different groups (Sternquist, Huang & Chen, 2010). MO is a dynamic marketing capability because of its rare, valuable, and inimitable nature and its use of market knowledge for insights (Day, 2011; Barrales-Molina, Martínez-López & Gázquez-Abad, 2014). The role of MO is to gather market knowledge. This vital organisational resource enables a firm to respond quickly to market shifts, such as changing customer needs or competitor threats. Additionally, MO is a dynamic marketing capability because it influences resource configuration in response to market changes (Kachouie, Mavondo & Sands, 2018). As a DC, MO feeds other capabilities, such as innovation, supply chain management, and organisational responsiveness, to fully add value to the business and customers (Jaakkola et al., 2016).

DCs require fast and efficient information to produce real-time cross-functional collaboration that allows for intensive and equitable sharing of ideas and information (Eisenhardt & Martin, 2000; Teece, 2007; 2018a). Morgan (2012) asserts that marketing analytics empowers DCs to reconfigure firm resources, thus, enhancing their ability to attain and sustain superior performance and differential competitive advantage. Therefore, using marketing analytics to develop MO as a DMC helps firms create and maintain a sustainable competitive edge. Although Barrales-Molina, Martínez-López & Gázquez-Abad (2014) deem MO to be a DC in itself, Roach

et al. (2018) opine that MO becomes a DC after interacting with an enabler capability such as marketing analytics.

2.5.2 New Product Development (A seizing capability)

NPD denotes the process through which new market offerings pass from inception to market and is aimed at gaining a competitive advantage (Kim, Shin & Min, 2016). According to Barrales-Molina, Martínez-López & Gázquez-Abad (2014), the origin of NPD is traced to sensing new market threats or opportunities. Firms produce goods and services that fill the gaps in the market when new opportunities or the threat of substitution emerge. Furthermore, the market knowledge from sensing new market threats and opportunities is incorporated into other decisions for the organisation to optimise performance. However, not all firms can effectively use market knowledge to their advantage, sometimes leading to failed products.

Previous literature explores the connection between NPD and competitiveness (Schilke, 2014). According to Helm, Krinner & Endres (2020), how a firm manages its NPD accurately reflects its ability to seize opportunities in the market. The ability of a firm to exploit market opportunities is a core determinant of its ability to create sustained competitive advantage. Based on the findings by Barrales-Molina, Martínez-López & Gázquez-Abad (2014), NPD involves a review of resources and capabilities by firms. Apple Inc. is a prime example, continuously and regularly introducing new products, thereby shaping itself and the market. Moreover, Helfat & Winter (2011) recognise how Intel sustains its competitiveness through the continual development of semiconductor chips for new computers.

Firms that want to develop a dynamic marketing capability in NPD must have a product development roadmap (Connor, 2015). The roadmap entails answers to questions regarding which future goods and services the firm will create and what strategies it will adopt to transition its customers and partners. Through the product roadmap, firms identify new problems and opportunities to be addressed by developing and introducing new products to the market. For digitalisation, the roadmap helps identify new ways of creating a digital portfolio of offerings to address customer needs, as well as the plans that will be used to move customers and the firm from older to newer goods and services. In addition, new technologies like rapid prototyping have the potential to shorten NPD lead times, a crucial aspect of maintaining a competitive advantage (Warner & Wäger, 2019). Because product life cycles are increasingly becoming shorter (Matzler et al., 2013), firms must develop capabilities that continuously produce products at pace with changing customer needs without giving the competition time to imitate.

Björkdahl (2020) argues that the most significant challenge facing NPD is a lack of processes for faster development and testing. This results in firms applying the same procedures to new and incremental product development. Furthermore, only a handful of firms have centrally controlled and shared data (Mikalef et al., 2018), without which firms cannot develop the DMCs necessary for decision-making and digitalisation. However, Kim, Shin & Min (2016) prescribe that having a well-developed and strategic marketing function is a unique resource that guides which customer benefits to pursue.

BPL aligns with the assertions made by Barrales-Molina, Martínez-López & Gázquez-Abad (2014), which identify MO and NPD as two essential DMCs. The organisation considers the two functions as significant sources of vital market information and product development roadmap. However, the role of marketing analytics and centralised data in developing these two

capabilities requires deeper scrutiny during the data-gathering phase of this study. Additionally, Björkdahl's (2020) insight concerning the lack of processes as a leading source of failure could mean that introducing digitally enabled processes at BPL can enhance their NPD capability.

2.6 Conceptual Framework

The conceptual framework integrates the concepts in this study to present the relationship among various components upon which this study is founded. Figure 2 represents the DCs framework, which continues to be meaningful in explaining the growth of firms over the long run in rapidly changing environments and is influenced by the works of Teece (2007) and Barrales-Molina, Martínez-López & Gázquez-Abad (2014). DCs offer the capacity to (1) sense, (2) seize and (3) react to potential threats in the market (Teece & Leih, 2016), thus enhancing the capacity of a business entity to adapt and exploit its environment. I use Barrales-Molina, Martínez-López & Gázquez-Abad's (2014) argument that MO and NPD are useful DMCs for sensing and seizing market opportunities and thwarting threats. The current thesis seeks to develop these critical DMCs for BPL: MO as a sensing capability and NPD as a seizing capability.

Conceptual framework – Developing Dynamic Capabilities through Digitalisation

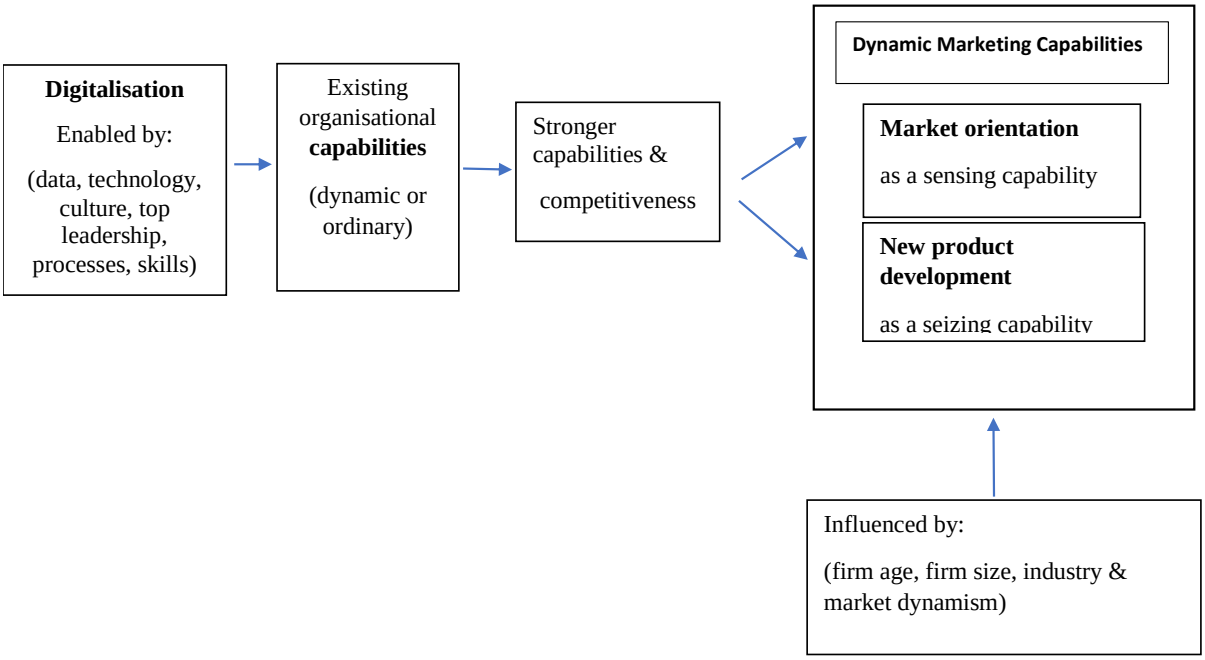

Figure 2: The Conceptual Framework

Within a firm, the marketing function employs ordinary capabilities to collect market knowledge that informs critical decisions. According to Barrales-Molina, Martínez-López & Gázquez-Abad (2014), the upshot is enhanced DMCs. In the conceptual framework above, data, technology, culture, leadership, processes and skills integrate with organisational capabilities to create distinct DMCs such as MO and NPD Managers play a critical role in this transition, using their skills and knowledge to combine organisational resources and competencies to influence change (Teece, 2014; Kurtmollaiev, 2020).

The same resources also enable digitalisation (Pavlou & El Sawy, 2011; Carcary, Doherty & Conway, 2016; Heavin & Power, 2018; Cao, Duan & El Banna, 2019; Larjovuori, Bordi & Heikkila-Tammi, 2018) and are espoused further in the section that follows. Developing DMCs is further aided by marketing analytics as a micro-foundation and a valuable tool in establishing a firm's sensing and seizing capabilities (Cao, Duan & El Banna, 2019). Building and deploying DCs is challenging (Teece, 2012; 2016). However, with the help of digitalisation, firms can speed up such development using technology (Pavlou & El Sawy, 2011). In the end, firms that develop strong DCs are also intensely innovative and entrepreneurial (Teece, 2016) and have sustained competitive advantage (Roach et al., 2018; Xu et al., 2018). Nevertheless, the development of DCs is influenced by firm size, age, industry and extent of market dynamism (Xu et al., 2018).

2.7 Enablers of Digitalisation

In the previous sections, it has been established that digitalisation and the development of DCs are complementary activities that rely on other organisational resources. Subsequently, this section espouses the firm resources that enable digitalisation and support capacity building. In high-velocity markets, MO and NPD require new knowledge and insights as significant inputs into their development (Eisenhardt & Martin, 2000; Hernández-Linares, Kellermanns & López-Fernández, 2021). By applying new technologies to organisational processes, digitalisation can aid the production of such knowledge and develop capabilities. The enablers listed below are not exhaustive but have been identified as the most influential based on the need for increased generation, analysis, and utilisation of data towards digitalisation and building DMCs. To improve the chances of successful digitalisation efforts, a firm needs data (Cao, Duan & El Banna, 2019), relevant technology (Pavlou & El Sawy, 2011), the right organisational culture (Heavin & Power, 2018), leadership (Larjovuori, Bordi & Heikkila-Tammi, 2018), organisational processes (Zott &

Amit, 2010) and managerial skills (Carcary, Doherty & Conway, 2016). These enablers are explained in more detail in the sections that follow.

2.7.1 Data

A firm's data is either internal or external (Gupta & George, 2016). Internal data originates from the firm's operations and is held within the firm. At the same time, external data comes from sources outside the firm, such as public records or the internet. Effective use of data requires new organising and work practices that allow capability building to aid in sensing, seizing and reconfiguration activities (Björkdahl, 2020). For example, the big data phenomenon is crucial to the sensing capability (Mendonça & Andrade, 2018a).

Notwithstanding, Leeflang et al. (2014) recognise that it is also one of the biggest challenges that markets face due to the size and amount of data required. They indicate that organisations need help capturing, storing, sharing, and analysing big data. Similarly, Mikalef et al. (2018) associate the widespread adoption of social media, integrated information systems, mobile sensors and devices, and artefacts related to the Internet of Things with firms' big data phenomenon.

Big data has become a critical resource within organisations that intend to digitalise, with its success dependent on the organisation's digital maturity (Al-Sai, Abdullah & Husin, 2019). To extract value and insights from big data, organisations strive to advance in their data maturity with the help of big data maturity models (BDMM), which are business tools used to measure an organisation's data maturity (Braun, 2015). BDMM introduce structure in the adoption of Big Data (BD), help define BD goals and offers tools to monitor and measure BD capabilities

(Limpeeticharoenchot et al., 2022). However, numerous maturity models are available to practitioners, with varying tools making it difficult to identify the right one (Grooss, Presser & Tambo, 2022). Additionally, Barton & Court (2013) opine that some BDMM developed by academia tend to be too complex for practitioners to use. Data privacy and security are also significant concerns organisations face as they increase their use of big data analytics (Zhang, Zhang & Xu, 2021).

2.7.2 Technology

Digitalisation depends on the right technology to support organisational processes. According to Muhic & Bengtsson (2019), technology is a critical trigger for sensing business opportunities. Additionally, technology intervenes in a firm's core businesses through modernisation efforts, such as buying or building technologies that can enhance product and service quality presented to customers (Valenduc & Vendramin, 2017). According to Nambisan (2016), digital technologies are classified under three distinct categories: (1) artefacts, (2) platforms and (3) infrastructure. An *artefact* refers to a digital component, media content, or app that forms a core part of a product or service and offers unique end-user functionality. A *digital platform* is an architecture that hosts digital offerings, while *infrastructure* denotes tools and systems that offer information exchange to support innovation. These include cloud computing and other examples such as data analytics, social media, online communities, and 3D printing (Nambisan, 2016).

Firms use data analytics and social media tools to improve their MO and NPD capabilities. For example, social media is instrumental in increasing customer insights (Leeflang et al., 2014). Social media can indicate how customers interact amongst themselves and with the goods and

services they consume. Technology, blogs, product reviews, product ratings, and discussion forums are instrumental sources of information that firms use to understand how customers collect and use information. The usefulness of information lies in its capacity to guide consumer purchasing decisions, including post-purchase behaviour. However, Capgemini Consulting & MIT (2011) contend that implementing new technologies does not necessarily lead to successful digitalisation. Hence, firms must take advantage of the opportunities that advancements in new technologies avail to transform their organisations.

2.7.3 Organisational Culture

Culture influences a variety of activities in organisations, including digitalisation. Cultural factors that affect workplace strategies include people's assumptions, attitudes, behaviour, beliefs, values, knowledge, meanings, norms and rules (Isensee et al., 2020). Kane et al. (2015) state that employees and culture are essential to successful digitalisation because people need to buy into the change. Likewise, McKendrick (2017) contends that technology and culture should be considered in tandem during digitalisation. Corporate culture determines employee behaviour, including decisions regarding the adoption of digital technologies (Grayson, Coulter & Lee, 2018).

One of the aspects of a corporate culture that is useful to digitalisation and capability building is learning. An organisation's capabilities are intertwined with its learning culture (Hung et al., 2010). Tallot & Hilliard (2016) call upon organisations to optimise leadership, structures, systems, culture and practices that facilitate adaptation and change to allow for deliberate learning. For example, having a flat organisational structure encourages employees to appreciate teamwork, participative decision-making, and networking (Eswaran, 2017). Moreover, rapid learning is enhanced by systems that allow firms to acquire and quickly process and share information across

all levels of the organisation. According to Schein (2017), an organisation's culture is the accumulated shared learning which, in the case of BPL, is a forerunner to digitalisation and, subsequently, the development of DCs. Therefore, the development of DMCs in BPL will be hampered or facilitated by its shared learning through a flat structure.

2.7.4 Leadership

A study by Larjovuori, Bordi & Heikkilä-Tammi (2018) identifies the four central leadership foci of digitalisation as strategic vision and action, enabling, leading cultural change and leading networks. Effective leadership ensures that these tasks are executed at the desired level of excellence to accelerate success. However, failure by management to have a strategic vision and action in place and failure to lead change may spell doom to the endeavours of digitalisation. Cao, Duan & El Banna (2019) encourage firms to commit adequate resources toward digitalisation and to develop a culture that supports marketing-analytics adoption.

Consequently, one of the leadership responsibilities during digitalisation involves using intelligent data for decision-making (Van Knippenberg et al., 2015) rather than past experiences and intuition (McAfee & Brynjolfsson, 2012). Additionally, flexible leadership that tolerates the ambiguity created by such vast amounts of data and new technologies is encouraged (Cascio & Montealegre (2016). Other leadership capabilities identified as critical for digitalisation include technological understanding and risk-taking combined with a willingness to fail (Bolden & O'Regan, 2016). Leaders must also accept that change is happening and adapt their organisations (Hearsum, 2015). Finally, leaders need to be aware of the speed at which their industries change, using mechanisms that constantly monitor internal and external environments (Neubauer, Tarling & Wade, 2017).

2.7.5 Organisational Processes

A profound enabler underpinning organisational change, such as digitalisation, is work processes. According to Björkdahl & Holmén (2019), some change initiatives do not necessarily affect a firm's core processes. Business models, however, only change when the change affects the core processes of a firm. Such change can take various forms, including model creation, extension, revision or termination (Cavalcante, 2013). In all these changes, core processes are affected in different ways.

For example, whereas business model creation involves materialising a commercial idea into a venture, business model extension involves improving a business by adding new processes (Cavalcante, 2013). On the other hand, model revision focuses on making interventions to existing core processes and differs from model termination, which occurs when core processes are removed from a firm's operations (ibid). How a firm's business model changes is crucial in understanding how digitalisation occurs.

2.7.6 Managerial Skills

Managerial skills development is anchored on the quality of learning from theory and experience (Zahra, Sapienza & Davidsson, 2006). Managerial skills develop over time as the managers learn (Heavin & Power, 2018). Moreover, Teece (2014) asserts their criticality in developing and deploying capabilities. A study by Kane (2019) identifies that people are the main drivers of organisational change, including digitalisation. Digitalisation requires a firm's employees to be agile, innovative, entrepreneurial, and fast learners to navigate the disruption caused by technology. Therefore, leaders must develop organisational talent. Where the necessary

talent is not available in-house, leaders should hire specialists from the external environment to drive digitalisation (Carcary, Doherty & Conway, 2016).

The enablers of digitalisation mentioned above are present and play a prominent role in BPL. However, the same factors affect the development of DMCs, albeit differently. For example, new technologies are crucial for collecting, storing and analysing market data for the MO capability. In addition, culture, leadership and managerial skills collectively support the development of DMCs. The following section covers other factors which influence the evolution of DCs and to which managers must pay attention.

2.8 Influences on the Evolution of DMCs

Based on this study's conceptual framework, the factors that influence the development of DMCs include firm size, firm age, industry, and market dynamism (Xu et al., 2018), which are explained in the following sections.

2.8.1 Firm Size

Size has traditionally been an indicator of performance, with more prominent firms expected to outperform their smaller peers. Firm size moderates performance and affects strategic choices and outcomes (Raguseo, Vitari & Pigni, 2020). Traditionally, larger firms have more significant economies of scale and resource base, thus a more remarkable ability to develop DCs than smaller firms (ibid). However, Xu et al. (2018) indicate that some large firms have inefficiencies, while some small and mid-sized firms are efficient regardless of their low economies of scale. As a result, this exposes the assumption that large firms with large-scale

economies outperform their smaller peers to further scrutiny. In some instances, larger firms are slower to respond to market changes and suffer from inertia, which challenges the development of DCs (Raguseo, Vitari & Pigni, 2020). Empirically, Jeng & Pak (2016) found that large firms benefit more from developing DCs in highly competitive markets than small firms, especially DCs relating to innovation and market knowledge.

2.8.2 Firm Age

A firm's age significantly affects its ability to develop DCs. Teece (2018b) argues that DCs perform differently in newer firms than in established ones. Established firms have undergone several years of learning and hold accumulated knowledge and skills necessary for developing capabilities. Firm age influences the ability to leverage organisational capabilities so that old firms achieve more with their capabilities than newer firms (Withers, Drnevich & Marino, 2011). New firms are considered five years and below, while old firms are those that have been in operation for more than ten years since inception (Arend, 2014). Likewise, Xu et al. (2018) recognise that a firm's age significantly modifies the implementation of DMCs.

Mahmutaj & Krasniqi (2020) attempt to answer the question of firm age concerning competitive advantage by arguing that some relatively newer firms enter the market with a high level of readiness and resource capability to compete favourably. Furthermore, Florea & Munteanu (2020) acknowledge that firms outsource capabilities to overcome age limitations. However, irrespective of its well-known benefits, outsourcing can severely damage the development of DMCs because a firm's success will depend on the skills of the outsourced company (ibid). Ultimately, the firm's capacity to assimilate new knowledge from the outsourced company can significantly improve performance and competitive advantage.

2.8.3 Industry

A firm's industry has a modifying effect on the scope and process of DC development. A study by Xu et al. (2018) confirms that a firm's industry is a significant moderator for developing DMCs. However, Bleady, Ali & Ibrahim (2018) assert that businesses in all industries are affected by technological change; hence, developing DCs through digitalisation is not skewed to some specific organisations but firms across all industries. In addition, Schriber & Lowstedt (2020) identify that some industries experience rapid imitation by competitors, necessitating the immediate introduction of radical or hard-to-copy capabilities faster than others.

Industry munificence is another factor affecting DC development's effectiveness (Fainshmidt, Nair & Mallon, 2017). In munificent industries, the abundance of resources offers managers a more expansive repertoire of strategic choices when environments change than in resource-scarce industries (Fainshmidt, Nair & Mallon, 2017). Chirumalla (2021) warns that it is prudent for managers to explore industry-specific enablers of DC development and micro-foundations because capability development is different in traditional and digitalised firms. For example, in traditional manufacturing firms, MO is developed through historical analysis, whereas in digitalised firms, it is developed through scenario planning and data-enabled feedback loops (Warner & Wäger, 2019).

2.8.4 Market Dynamism

Environmental dynamism is the rate of change in a firm's environment denoted by volatility, unpredictability and instability (Petrus, 2019). Modern markets exhibit widespread dynamism, evidenced by changing customer tastes and preferences (Zahra, Sapienza & Davidsson, 2006;

Ambrosini & Bowman, 2009; Ringov, 2017). Therefore, environmental dynamism is essential in the DC literature. In particular, the level of dynamism influences how firms adapt their resources to new realities and determines how crucial aspects of DCs undergo evolution over the years (Yuan, Xue & He, 2021). This is because DCs are inherently context-dependent (Eisenhardt & Martin, 2000; Teece, 2007; Karimi & Walter, 2015).

Dynamic environments create an imbalance between existing and ideal business practices and necessitate higher levels of sensing, seizing and reconfiguring, thereby placing a premium on DCs (Yuan, Xue & He, 2021). On the other hand, market dynamism increases ambiguity and may also render DCs volatile (Amit & Zott, 2015). For example, any slight environmental change can force firms into costly irreversible resource reconfigurations. Consequently, technology adoption, capability and NPD must be carefully selected to avoid redundancies occasioned by false market information emanating from environmental dynamism (Yuan, Xue & He, 2021). The scholars also state that firms in less dynamic environments practice more disciplined decision-making but are less likely to experiment and learn than those in turbulent environments.

2.9 Summary

This chapter began by showing the need for accelerated implementation of digital solutions for firms such as BPL as a strategic imperative in a world that is increasingly facing digital disruption. To identify the sources of a firm's competitive advantage, the market-based view, which enables firms to understand and fulfil market and customer needs better than their rivals, is contrasted to the inside-out perspective. Examples are given of different strategic options firms can adopt when pursuing digitalisation.

The review identifies technology as instrumental to the success of companies such as BPL and illustrates how technology impacts business models and the different paths available to managers on the road to digitalisation. Emerging technologies and their benefits are discussed, as well as challenges encountered as firms endeavour to digitalise, such as lack of agility, inertia and resistance to change. The review further reveals that DCs influence firm performance (Hsu & Wang, 2012; Cao, Duan & El Banna, 2019); however, the role of DCs in attaining and sustaining a competitive advantage remains understudied (Fainshmidt & Frazier, 2017). Additionally, most studies reviewed are exploratory, implying that their findings are not readily generalisable to other firms.

Using Teece's (2018a) argument, the three main types of DCs were explained, including how they are developed and the attendant challenges, their ability to enable organisations to respond to market dynamism and the link to firm performance. DMCs are then analysed, with an emphasis on MO and NPD, the two capabilities that are the focus of this study at BPL. The conceptual framework is anchored on the works of Teece (2007) and Barrales-Molina, Martínez-López & Gázquez-Abad (2014) and brings together various aspects of DC development and digitalisation. Organisations should be aware of various digitalisation enablers (data, technology, organisational culture, leadership, processes and managerial skills). It is noteworthy that previous research has ignored factors such as firm size, firm age, industry, and market dynamism despite the critical influence of these factors on DC development.

The literature review enhances the understanding of BPL's challenges. The proliferation of new technologies can be overwhelming for organisations as they try to identify the ones that would serve them better. BPL has the advantage of belonging to a larger parent group that sources and recommends systems and technologies for its affiliates to use. However, BPL's unique market

needs, such as a significantly technology-savvy population, could mean purchasing different technologies to suit local needs. The need for ambidexterity further complicates the challenges associated with correctly identifying suitable technologies (Hess, 2020). BPL, a market leader with strong brands, has to protect its market share while pursuing new growth opportunities.

The next chapter identifies and justifies the methods, approaches, and techniques adopted for data collection, analysis and interpretation.

3 CHAPTER THREE: METHODOLOGY

3.1 Introduction

The concepts espoused in the previous chapter placed the organisational problem within extant literature. This chapter provides a detailed account of the design and methods, including the sampling technique, sample size, data gathering and analysis techniques. It presents the research philosophy, which informed my ontological, epistemological, axiological and methodological choices, providing a lens from which to approach the research aims. Finally, the chapter outlines how I conducted this study to create actionable knowledge and establish whether digitalisation can develop DCs for BPL and mitigate against future market dynamism.

The chapter is organised into the following main sections: the philosophical framework, the design explicating an action research strategy, data collection and analysis techniques, research quality, and ethical considerations.

3.2 Research Philosophy

Research philosophy is a system of beliefs and assumptions that guide knowledge creation (Saunders, Lewis & Thornhill, 2016). As a set of beliefs and assumptions regarding the existence of problems and a set of agreements about the investigation of such issues, Hughes (2010) argues that the ideas that characterise a research philosophy enable researchers to uphold and explicitly or implicitly apply those beliefs, assumptions, norms and values of the chosen philosophy. There are at least five significant philosophies that Saunders, Lewis & Thornhill (2016) identify. These are critical realism, positivism, interpretivism, pragmatism and post-modernism. Each of these

philosophies assumes different ontological, epistemological, axiological and methodological options.

The positivist philosophy ontologically suggests that research has one true unambiguous reality, and epistemologically, positivism consists of observable, measurable and generalisable facts testable for causal explanations (Saunders, Lewis & Thornhill, 2016). Axiologically, the positivist scholar is detached from the research to remain objective, and therefore the research is believed to be free of values (ibid). Interpretivism is on the other end of the spectrum and views the world as constructed, interpreted and experienced through social interactions (Lincoln & Guba, 1985). Interpretivism seeks to create richer meanings and understanding of social contexts (Saunders, Lewis & Thornhill, 2016). Pragmatism draws from both positivism and interpretivism and seeks to find solutions to problems in practical ways (Saunders, Lewis & Thornhill, 2016). Critical realism differentiates the real world from the observable world and is concerned with theory-building more than engagement with the world, focusing on the emancipation of the weak from the powerful (Easterby-Smith, Thorpe & Jackson, 2015; Saunders, Lewis & Thornhill, 2016). Post-modernism was created in the late twentieth century by critics of positivism and privileges language so that marginalised views are considered (Saunders, Lewis & Thornhill, 2016).

Keeping the research aim in mind—to develop DMCs through digitalisation—the solution requires a deep understanding of the processes that give rise to DCs at BPL. To develop this deep appreciation, I planned to hear directly from the participants about their understanding of capabilities at BPL using open-ended questions. For that reason, positivism was ruled out as an option for this study since it objectively measures research properties (Easterby-Smith, Thorpe & Jackson, 2015) rather than interpretations of meanings, which were needed. Likewise, critical realism was ruled out because of its focus on theory building rather than empirical research and its

sceptical view of power (Easterby-Smith, Thorpe & Jackson, 2015). Finally, pragmatism was also not an option as it does not accept any frameworks that can shape knowledge, which would rule out the use of prior research, nor does it accept that people can form their own meanings (Easterby-Smith, Thorpe & Jackson, 2015).

Therefore, an interpretivism philosophy was employed to enable a deeper exploration of the constructs' meaning. As mentioned earlier, interpretivism assumes a subjective epistemology, a relativist ontology, balanced axiology and a naturalistic methodology (Kivunja & Kuyini, 2017), which are explained in the following sections. Interpretivism is, however, criticised as subjective with the potential to create a bias (Creswell & Poth, 2018). Additionally, findings from interpretivist studies are not generalisable since the data relies on personal experiences and interpretations, which undermines its reliability and representativeness (Bryman & Bell, 2015). However, the strength of interpretivist research lies in its potential to bring a more profound understanding of the world arising from participant data (Saunders, Lewis & Thornhill, 2016). In the following section, interpretivism is explained in greater detail.

3.2.1 Rationale for Choice of Interpretivist Paradigm

Doctoral literature indicates that organisations can be studied through different paradigms, depending on the objectives (Hassard, 1991). An interpretive inquiry is used to better understand the world or phenomena through first-hand experiences (Antwi and Hamza, 2015). This study aims to discover how to develop two DMCs through digitalisation: MO and NPD. Understanding the organisation from those who directly use the two capabilities is necessary. Organisational reality is different for each individual within the organisation and is shaped by the context, the collective knowledge and realities of those individuals, and their different interpretations of situations and

meaning-making (Berger & Luckmann, 1991; Saunders, Lewis & Thornhill, 2016). The study focuses on the experiences of the company's sales and marketing teams regarding the role of digitalisation in developing DMCs. The participants were engaged in one-on-one interviews. Their experiences were then constructed into knowledge based on my experience and interpretation.

Furthermore, the Social Construction of Technology (SCOT) theory suggests that technology is the product of human action (Yousefikhah, 2017). Technology in organisations is viewed as external, but once inside the organisation, it is moderated by human actions and the organisational context (Orlikowski, 1992). Using the structurational model of technology, Orlikowski (1992) further explains the duality and interpretive flexibility relationships that technology has with organisations. Duality implies the human and structural aspects that create technology, while interpretive flexibility means that technology is used flexibly even though the flexibility is not infinite. Interpretivism was the right philosophy to conduct the study because it allows the exploration of the participants' meanings and experiences with the phenomena under study.

Although interacting with multiple participants in this study was crucial in enhancing the understanding of the management and marketing team's experiences, my values, opinions, and experiences also played a role in improving such insights (Brooke, 2013). Therefore, the following sections espouse my ontological, epistemological, axiological and methodological assumptions.

3.2.2 Ontology

Ontology focuses on the nature of reality, or what can be known (Easterby-Smith, Thorpe and Jackson, 2015). An ontological discussion concerns whether social reality is objective or the

construction of one's mind (Kamal, 2019). I approached this study as a social scientist who believes that reality is socially constructed and that multiple realities exist (Saunders, Lewis & Thornhill, 2016). As a result, this study embodies a relativist ontology that acknowledges the participants' varied perspectives and experiences (Easterby-Smith, Thorpe and Jackson, 2015). I wanted to understand the level of digitalisation at BPL and what technologies, if any, the participants believed would improve processes in MO and NPD. I also wanted to understand what the participants believed to be the organisation's DMCs within MO and NPD and their role in organisational performance.

3.2.3 Epistemology

As Saunders, Lewis & Thornhill (2016) identify, the fundamental assumption in epistemology is what constitutes acceptable and valid knowledge. According to Kivunja & Kuyini (2017), epistemology relates to whether knowledge is acquired from an internal or external source. Burrell & Morgan (1979) also argue that epistemology concerns how we communicate such knowledge.

I follow a subjectivist epistemology, which views knowledge as a social construction generated by interpreting interactions with research participants (Bunnis and Kelly, 2010). There were varied interpretations regarding utilising digitalisation to develop DMCs during participant interactions. Other factors influencing knowledge generation included the participants' experiences and knowledge, political and social status within BPL, cultural and personal values, and gender (Lincoln & Guba, 2013). These factors were considered during data analysis and interpretation to provide the context within which the findings were read and to ensure that the knowledge gathered would be accurate and actionable.

3.2.4 Axiology

Axiological assumptions concern the role of values and ethics and influence the 'what' and 'how' to study (Saunders, Lewis & Thornhill, 2016). In social research such as this one, the investigation is assumed to be value-laden because we are an integral part of the study, guided by our value system (Creswell & Poth, 2018). Despite the study's value-laden nature, I am expected to analyse and present a balanced view of the findings. Together with the participants, each individual brought values to this study (Saunders, Lewis & Thornhill, 2016) which affected the research at multiple points (Bryman & Bell, 2015). For example, the topic of this study and the use of an interpretive paradigm, including the data collection techniques, are based on my values and belief in interpretive methods to understand the social world. The participants' views also varied depending on their organisational roles, experiences and beliefs.

Additionally, I acknowledge bringing a different set of values to the research due to prior knowledge of the organisation. These included assumptions and long-held views as to which of the two DCs—MO or NPD—was stronger. However, once the participants started narrating their opinions, I had to let go of these beliefs and accept what they said. Similarly, I acknowledge that values can change over time in research, and I, therefore, used reflexivity to detect changes in participant views throughout the research process (Holmes, 2020). For example, in the beginning, some participants were cynical about how this study would improve their day-to-day jobs. However, after data analysis, it became clear that the emergence of different DMCs from the study resonated with them, and they became more confident towards the study results and their usefulness in improving practice.

3.3 Research Design

3.3.1 Qualitative Research

Based on the description by Antwi & Hamza (2015), the core focus of a research methodology is the 'how' of conducting an investigation. I adopted a qualitative study which, according to Creswell & Poth (2018), means exploring and understanding the meaning that individuals and groups attach to social problems. A qualitative methodology is, therefore, consistent with the interpretivist paradigm, founded on the belief that a single reality does not exist and that interactions are crucial ways to construct multiple realities (Lincoln & Guba, 1985). The methodological approach is naturalistic because phenomena are studied in their natural setting, where events unfold naturally without manipulation (Antwi & Hamza, 2015). Data collection occurs within the participants' setting (Yates & Leggett, 2016), which in this case, was formal meeting rooms and, in some cases, online. The investigation process involved probing so that the participants explained work processes precisely as they occurred in real life. The methodology assumed that meaning was embedded in the participants' experiences and that the meaning was mediated through my perceptions (Merriam & Tisdell, 2016).

3.3.2 Theory building - Inductive Approach

In considering the three main approaches to theory building: deduction, induction and abduction, deduction involves moving from theory to data, where conclusions are drawn logically from hypotheses (Ketokivi & Mantere, 2010). Induction involves moving from data to theory. In comparison, abduction consists of moving back and forth between theory and data, essentially combining deduction and induction (Saunders, Lewis & Thornhill, 2016). Induction was selected for this research because theory comes by looking for patterns in data and then developing

explanations about those patterns (Saunders, Lewis & Thornhill, 2016). Theory is the outcome of research in that observations and findings lead to concepts and empirical generalisations (Bryman & Bell, 2015).

Using induction allowed themes to emerge, which were interpreted as DMCs. These capabilities arose from explaining the underlying organisational processes in MO and NPD. The newly-formed understanding was then located within previous theories of DC development and used to create actionable knowledge (Coghlan, 2019). Actionable knowledge is demonstrated through the usefulness of a study such as this one to the organisation (Bossé & Barès, 2022). The actions developed were: first, we identified the need for a change management programme to increase technology adoption. Secondly, we identified and recommended changes in core processes combined with the introduction of specific technologies to aid the development of the weaker DMCs.

3.4 Research Strategy

3.4.1 Action Research

The practice of action research (AR) is about change through collaborative and democratic activities (McNiff, 2014). This is important because it allows for the involvement of participants to seek solutions jointly. While many definitions of AR exist, its core features include creating new knowledge, action-oriented outcomes, and collaborative participation, where both researcher and participants learn and come up with knowledge from enquiries conducted within specific and practical contexts (Herr & Anderson, 2015). The primary idea that characterises AR is to use a scientific approach to research the resolution of complex issues directly with the persons who

experience the problems (Greenwood & Levin, 2007). Apart from learning about the problem through action, I endeavoured to learn more about myself through self-inquiry and reflection (Coghlan, 2019). Chapter six covers these learnings, including reflections on my experiences during the research process.

Kurt Lewin has been widely recognised as the founding father of the AR inquiry framework in the 1940s (Coghlan, 2019). Lewin emphasises the need for organisational members to research those affected by an issue as a basis for social change (Burnes, 2004). Researching BPL with people who work there and experience the DCs and digitalisation in their day-to-day tasks has given more profound insights into the technologies at work and how those technologies are shaping BPL's workplace. Today, AR incorporates assertions from notable scholars such as Karl Marx, John Dewey and Jürgen Habermas (Greenwood & Levin, 2007). However, AR also consists of different interpretations and implementations owing to its diverse theoretical philosophies, such as; pragmatism, critical thinking, feminism, constructionism and democracy (Cassell & Johnson, 2006). For this reason, AR is expressed via various modalities, such as action learning, action science, cooperative inquiry, participatory AR and appreciative inquiry (Herr & Anderson, 2015; Coghlan, 2019). Despite these diverse approaches, the fundamental aspects of AR remain to produce actionable knowledge that solves organisational problems together with the persons who experience such (Bradbury, 2015; Coghlan, 2019).

AR places researchers in a context where they inquire in the present tense by relying on the past to shape the future (Coghlan & Shani, 2017). The researcher experiences knowing-in-action or self-reflection, where the researcher's thoughts influence the action as it happens through interiority; that is, experiencing data of sense and data of consciousness (Coghlan, 2019; Coghlan & Shani, 2019). Interiority is captured through the general empirical method. It is denoted by

attentiveness to data, intelligence in understanding possible explanations, making reasonable judgments and taking responsible actions (Coghlan, 2019). This study uses interiority to generate inferences based on my experience and cognitive interpretations. At the same time, the three voices of inquiry are taken into consideration: (a) first, (b) second and (c) third-person inquiry (Coghlan, 2019). The first-person inquiry involves acknowledging that my personal beliefs, values, thinking and acting are integral to the research. The second-person inquiry means knowing how to engage and collaborate with others, while the third-person inquiry means extending the analysis to a broader audience (Coghlan, 2019). Practising the three voices is enacted through self-awareness and tapping into the experiences and understanding of the participants.

Finally, a researcher must consider four core elements to undertake an AR study successfully. These include (1) research context, (2) quality of relationships, (3) quality of the research process and (4) study outcomes (Shani & Coghlan, 2019). These elements are discussed in the following sections.

3.4.1.1 Context

The context of a study is vital in AR since the research and the knowledge generated are localised (Shani & Coghlan, 2019). Through AR, this study explored the state of DMCs in BPL and conducted a meaningful inquiry into developing additional capabilities through digitalisation. The organisation is a market leader in its industry with leading brands. I am a former employee of the organisation, meaning I had a pre-understanding (Coghlan, 2019) of the work environment. As a marketer, I use market information about competitors and consumers to make decisions. My beliefs align with the literature on DCs that highlight MO and NPD as critical DMCs (Barrales-Molina, Martínez-López & Gázquez-Abad, 2014). The DC concept continues to gain popularity

among researchers but was new to the organisation, thus allowing me to generate *new* actionable knowledge.

3.4.1.2 Quality of Relationships

AR involves researching with others and emphasises the relationships between the researcher and participants, as well as other elements of the study. To have a meaningful inquiry, AR researchers must develop and manage relationships with those they will survey; through collaboration, shared goals and mutual trust (Coghlan & Shani 2018). To build trust from the start, I ensured that the study participants had the information sheet that detailed the study's aims and secured their willingness to participate through a signed consent. I also assured them of anonymity and confidentiality throughout the study. As a result, trust was developed, which enabled the participants to speak freely, as presented in chapter four.

Another issue considered was researcher positionality because it affects access to people and information (Coghlan, 2019). For example, AR can be conducted by an insider (member of the organisation), an outsider (not a member), reciprocal (a collaboration of insiders and outsiders) or multiple positionalities (McNiff, 2014). In this study, I was a hybrid action researcher, having previously worked at BPL but currently an outsider which meant that access to information was more limited than it would be for an insider. Nevertheless, I could access relevant data due to the trust established with the participants.

3.4.1.3 Quality of the Action Research Process

AR emphasises two parallel processes; inquiry and action (Coghlan & Shani, 2018). The enquiry and the action become part of the study results (Erro-Garcés & Alfaro-Tanco, 2020). Thus, both goals were achieved; generating knowledge on developing DCs through digitalisation and solving an organisational problem through intervention. There were also recommendations to address the development of weaker DMCs.

3.4.1.4 Outcomes

AR is emergent and evolving (Bradbury, 2015) and is used to solve real-life problems by integrating behavioural science knowledge with existing organisational knowledge (Coghlan, 2019). Based on AR results, organisations can implement changes to move to higher levels of performance and efficiency while at the same time contributing to knowledge (Erro-Garcés & Alfaro-Tanco, 2020). At BPL, ten DMCs emerged within the sales and marketing departments that have contributed to the organisation's success and market leader position. Of the ten, seven DMCs are strong, while three need further development or renewal. The DMCs are explained in chapter four as part of the findings. AR is also a means of professional learning (Koshy, Koshy & Waterman, 2010; McNiff & Whitehead, 2011). I developed as a scholar-practitioner through the generated self-awareness of personal attitudes, researcher positionality and interests, the need for self-reflection, and the use of the general empirical method (Coghlan, 2019).

3.4.2 Action Research Cycles

In AR, the researcher goes through four stages identified by O'Leary (2021) as: observing, reflecting, planning and acting as shown in Figure 3 below.

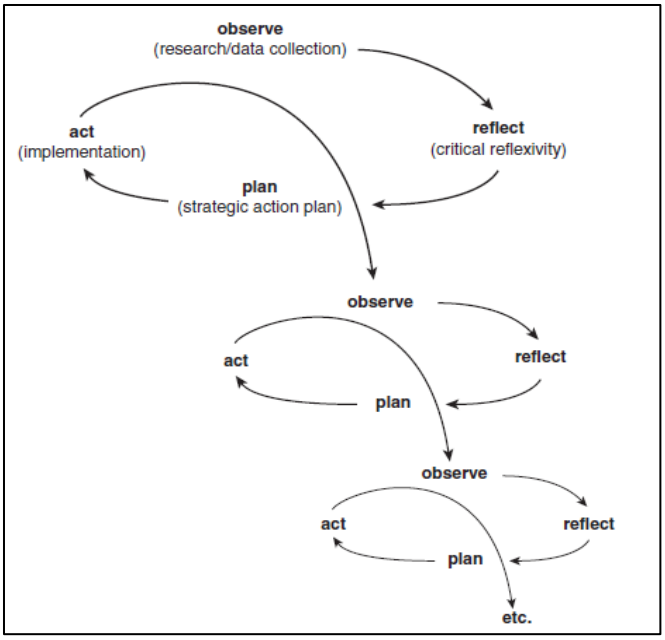

Figure 3: Cycles of Action Research. Adapted from O'Leary (2021).

The cyclic nature of AR requires researchers to (1) observe, (2) reflect, (3) plan and (4) act; then start again and observe, reflect, plan and act in an iterative sense. The steps are emergent, done collaboratively with the participants, and the cyclical process becomes more evident as knowledge is created. 'The premise is that you learn, you do, you reflect, you learn how to do better, you do it better, you learn from that, do it better still, and so on' (O'Leary, 2021, p. 199).

For this study, I started with a reconnaissance. The reconnaissance involved a literature review and discussions with members of BPL to understand the organisational problem. Shani & Coghlan (2021) emphasise the need to consider a research problem's organisational and academic context before data collection and consider literature review a critical phase in an AR study. Similarly, Herr & Anderson (2015) state that AR must locate the problem in the relevant literature

so that the researcher is expected to provide sufficient scholarly works to frame the study but is also expected to continue the literature review as the research is carried out. Based on these assumptions, the organisational problem was located within relevant literature.

After that, I followed the steps above in two AR cycles. I conducted two sets of interviews before data saturation was reached. Cycle one provided data that formed the basis for further questions in cycle two. Additionally, after cycle one data analysis, we discovered that technology adoption was a problem, and, together with the participants, we implemented an intervention to increase the adoption rate. Finally, after the second cycle, I made specific recommendations to improve processes for the two weaker DMCs, as explained in chapter five.

3.4.3 Appraisal of Action Research

AR is inherently participative and collaborative (Coghlan & Brydon-Miller, 2014). Koshy, Koshy & Waterman (2010) identify that only individuals with a common purpose can undertake AR successfully. Being participative implies that organisational members actively participate in the cyclical processes (Holian & Coghlan, 2013). It contradicts traditional research, which involves system members being the objects of a study. By being highly participative, action researchers evaluate the impact of actions, thus facilitating downward accountability to stakeholders, beneficiaries, and participants and upward accountability to top management (Bradbury, 2015).

As mentioned in section 3.4.1, there are many modalities through which AR can be undertaken. For this study, the appreciative inquiry modality of AR was adopted (Coghlan, 2019). Appreciative AR made it possible to approach capability renewal at BPL from a positive perspective. I acknowledge that the organisation has done many things right, and together with the

participants, we only aim to enhance the systems and processes already in place (Coghlan, 2019). In the end, AR improves an organisation through the acts of taking action and critically reflecting on the actions before implementing further changes (Koshy, Koshy & Waterman, 2010). During the study, technology adoption and how digitalisation had improved processes were evaluated, reflected on, and re-evaluated before suggesting an intervention.

Being situation and context-specific, AR has been identified as capable of dealing with complex situations (Coghlan, 2019). However, despite the above advantages, questions have been raised concerning AR's ability to ensure meaningful participation in practice, given that practitioners often need more time outside regular duties for collaboration and participation (De Toledo & Giatti, 2015). For example, the participants in this study had time pressure due to the duality of their roles as organisational members and participants. Additionally, Winter (1982) opines that data interpretation in AR is restrictive due to its non-generalisable nature.

3.5 Data Collection

Merriam (2014) argues that 'data consists of bits of information gathered from the environment. Thus, data can be tangible, measurable… invisible, and hard to measure… Whether or not pieces of information can be transformed into data in an [investigation] depends on the interest and viewpoint of the scholar' (p. 85). I went into data collection with an open mind, understanding that what became of the information collected would be highly influenced by my interest, the questions I asked and my interpretation.

3.5.1 Sampling

According to Daniel (2012), there are two main sampling techniques: probability and non-probability. Probability sampling is mainly used in quantitative designs where everyone within a target population has a known and equal chance of getting selected. Non-probability sampling, in contrast, is mainly used in qualitative studies, and there is no assigned or known probability of any member of the population getting selected (Easterby-Smith, Thorpe & Jackson, 2015).

This study employed a purposive sampling technique to select the participants from the company's employees working in the sales and marketing departments. Purposive sampling is a non-probability technique used when a researcher wants to select the participants based on their knowledge of the subject under investigation (Palinkas et al., 2015). Here purposive sampling was chosen to target the people in the sales and marketing departments handling technology, market research and NPD for their knowledge and experience. Additionally, non-probability sampling methods such as purposive sampling are suitable for qualitative studies (Shaheen, Pradhan & Ranajee, 2019) because they allow the researcher to select eligible participants for a survey. Although purposive sampling is criticised for providing room for biases in a study, Duan et al. (2015) argue that interviewing people with knowledge and experience of the phenomenon improves the quality of the collected data. The interviews demonstrated the point above, considering that the selected participants were knowledgeable in the topics covered.

3.5.2 Participants

A sample denotes a set of subjects chosen to represent a target population in a study (Miller & Salkind, 2002) from whom evidence is gathered. For example, this study targeted a sample of

ten participants, all employees within BPL and selected for their knowledge and experience (Palinkas et al., 2015). I approached the department heads to select the participants, who then identified people based on their roles and relevance to the study. After the initial planning session, the participants were given the participant information sheet (see Appendix 3) and asked to consent to be part of the study through a consent form (see Appendix 4). Section 3.8 of this study explains the ethical approval process in more detail.

The participants selected worked in market research, innovation, commercial and technology departments. The research team collects market data about brands, competitors, customers and retailers. The team is also charged with proactively collecting data from the trade and from consumers, which is then used as input for decision-making. For example, the innovation team relies on the data gathered by the research team and combines it with data from other sources, such as company records, to design and develop products. The commercial team turns ideas and products into revenue streams, while the technology team delivers the right tools for the organisation. In the select group of ten, two were department heads, while the other eight were team leaders and operational staff. Table 1 summarises the list of participants, pseudonyms and years of experience.

Participants	Pseudonym	Experience
Interviewee 1	P1	16 years
Interviewee 2	P2	12 years
Interviewee 3	P3	5 years
Interviewee 4	P4	3 years
Interviewee 5	P5	5 Years
Interviewee 6	P6	20 years
Interviewee 7	P7	6 years
Interviewee 8	P8	16 years
Interviewee 9	P9	18 years
Interviewee 10	P10	8 years

Table 1: Participant Profile

Five males and five females participated. Although the sampling process was a purposive technique, the study did not intend to equalise the number of male and female participants; it occurred by chance due to the nature of the participants' jobs. The participant with the highest number of years working with the company was P6 (20 years), and the lowest was P4 (3 years). The participants' difference in the number of years worked was 17 years. The experience mean was 10.9 years, showing that the participants had an average experience of 10.9 years. Six participants occupied strategic roles, while four had supervisory positions. All the participants were well-versed in the study topics.

3.5.3 Semi-structured Interviews

Interviewing involves holding one-on-one conversations with the research participants to collect data, which is then used to answer the research aims and objectives (Powney & Watts, 2018). Semi-structured interviews, done over two AR cycles, were chosen for this study to gain an in-depth understanding of the interviewees' opinions, feelings, and attitudes towards the research aim (Hughes (2016).

The reconnaissance, which was done before commencing interviews, occurred during the COVID-19 lockdown; therefore, all the discussions were online. By the time I conducted cycle one interviews, the mandatory online interviewing process had been lifted so that I could meet the participants face to face. However, the participants were still given the option of an online meeting. Nine participants chose to be interviewed face-to-face, individually, during regular office hours, while one participant requested an online interview. After cycle one data analysis, the interviews were repeated, focusing on the areas the data had highlighted until saturation was achieved.

In semi-structured interviews, the interviewer is not strictly limited to a list of formalised questions but asks more open-ended questions that allow for a discussion rather than a straightforward question-and-answer format (Easterby-Smith, Thorpe & Jackson, 2015). According to McTate & Leffler (2017), semi-structured interviews adopt a blend of closed-ended and open-ended questions. Although semi-structured interviews are advantageous for clarifying questions, allowing for flexibility to add new questions, and obtaining in-depth data, Adams (2015) contends they could introduce interviewer bias and require interviewing and data analysis skills. As Coghlan (2019) suggests, journalising was adopted to mitigate such bias. Maintaining an open mind in the research process and ensuring no prior formulation of opinions and judgements were

crucial ways of avoiding bias. The interview protocol and guide used in this study are presented in Appendix (1).

I used the conceptual framework to structure the interview guide (appendix 2). I was investigating two main concepts of digitalisation and dynamic capabilities and two sub-topics of MO and NPD. I, therefore, structured the interview questions based on the four topics, in the following order: digitalisation, dynamic capabilities, MO and lastly, NPD. Under each topic, I asked relevant questions concerning the competencies, technologies or success factors behind BPL and what the participants identified as missing but crucial to their roles or overall organisational success. Besides the conceptual framework, the research objectives guided the interview questions. For example, research objective 1 aimed to 'identify the benefits of digitalisation in response to digital disruption'. Therefore, I asked specific questions regarding ways the participants thought digitalisation was improving firm performance, individual tasks or competitiveness.

3.5.4 Guidelines for Data Collection

I followed an interview protocol to create similar conditions for each interview. Each interview lasted approximately one hour, adequate to collect in-depth data from the participants but not too long to cause fatigue. The interviews occurred on different days and times based on the participants' convenience and preference. Activities that took place during each interview are detailed in Table 2.

Activity	Significance
Introductions	Introductions set the tone for the interviews and created a warm environment for data collection. All the participants readily provided their details as required.
Confirming that the participants had read and understood the information sheet	This step ensured that the ethical considerations for informed consent had been observed. All the participants had read and understood the information sheet, but three were concerned about their identities being disclosed. I assured them that their identities would be anonymised in the final report and the findings would not contain information directly identifiable with individuals.
Receiving the signed consent forms	The signed consent was retrieved from each participant.
Assigning interviewees pseudo names	Assigning each participant a pseudonym concealed their identities, consistent with the confidentiality and ethical requirements.
Conducting the interviews	
Defining technical terms	Defining the technical terms ensured that the participants provided accurate information, which improved the credibility of the findings.
Posing the questions	Posing the interview questions allowed each participant to speak freely about their understanding of the phenomena under study and gave me data for the study.
Answering questions	Allowing the participants to ask questions provided an opportunity to clarify issues. For example, two participants asked if they could access the final report, and I confirmed that after their heads of department had reviewed the final report, they could get a copy of the findings section. I also explained that I could not hand over the entire thesis before the university had reviewed my work.
Thanking participants	I thanked each participant at the end of the session. I sent a follow-up email the following day to show appreciation for their time and for accepting to participate in the study. After the first and second cycles, I informed the participants that they would participate again in the future after data analysis.

Table 2: Interview Process and Activities

Table 3 is a summary of the research design for this study.

Research Philosophy	Ontology	Epistemology	Axiology	Methodology	Theory building	Data collection
Interpretivism	Multiple realities created	Subjectivism	Value laden with balanced presentation of findings	Qualitative (Action Research)	Inductive	Semi-structured interviews
		Social construction and interpretation		Naturalistic		

Table 3: Research Design. Adapted from Saunders, Lewis & Thornhill (2016).

3.6 Data Analysis

The previous section describes the sampling technique, the criteria for participant selection and the data collection methods. The next section discusses the tools and rationale for data analysis.

3.6.1 Qualitative Data Analysis

Data analysis is an essential component of a study. It aids the researcher in summarising and accurately inferring the gathered data (Mills, 2003). The data collected in this study was non-numerical. Hence, qualitative analysis procedures were adopted (Trochim, Donnelly & Arora, 2016). In AR, data analysis is an ongoing process that begins in the field while still collecting data

(Coghlan, 2019). The analysis started immediately after every interview by reviewing the recorded data to check what similar ideas were forming. While there is no definitive way to analyse data in AR (Koshy, 2009), I opted to use thematic analysis, which is explained in the next section. During the concurrent data collection and analysis, the general empirical method espoused by Coghlan (2019) was enacted, which involves being attentive, intelligent, reasonable and responsible with the data in the present tense. Being attentive means keenly listening to what is said while recording the answers. Understanding what the participants mean by their statements without altering the meaning is essential. The need to be intelligent, reasonable and responsible was experienced during analysis where the data patterns were interpreted for meanings. Finally, the analysis revealed ten DMCs at BPL, seven of which had been enhanced by technology and three that needed further development.

3.6.2 Thematic Analysis

Data was analysed using thematic analysis because it is considered the most appropriate technique for identifying patterns in qualitative data (Braun & Clarke, 2013). The first step was to clean up the data. The participants' identities were anonymised by labelling each interviewee using P1, P2, P3 ... P10 labels. Next was data familiarisation, where I read all the data to check for coherence. Immersive reading is often done before coding to shape ideas and aid in identifying patterns (Bowen, 2009). After achieving familiarity with the data, the next step was coding. Coding involves identifying and labelling segments and patterns in the data (Skjott & Korsgaard, 2019). Coding and categorising were done using NVivo, a computer-aided data analysis software. I had the choice of using computer-aided qualitative data analysis software (CAQDAS) or manual coding for this study (Saldaña, 2016). I chose to use the software NVIVO as it allows for detailed analysis of a topic, thus promoting the reliability and validity of qualitative data (Zapata-Sepúlveda, López-Sánchez & Sánchez-Gómez, 2012). I also found the auto-coding functionality

of the software more comprehensive than manual coding since it aided in identifying relationships between themes and interpretation through visual charts. However, automatically generating the codes using software did not remove my responsibility as the researcher to go through the generated codes and ensure they accurately represented the data. The generated codes can be found in Appendix 6.

Codes with the same meanings were merged to create themes, which I then analysed further for accuracy. According to Tesch (2013), thematic analysis fundamentally requires closely examining the ideas and patterns that emerge from data and exploring their meanings. Further checks were done to remove overlapping and redundant themes. Finally, codes and themes that were relevant but out of scope were identified. For example, the results showed that 'Brand' is a DMC at BPL and which I highlight in the conclusion chapter for future consideration. The themes that emerged from the study are discussed in chapter four as the ten DMCs at BPL.

I used the conceptual framework to further aid in interpreting the analysed data. In the conceptual framework, the enablers of digitalisation, namely, data, technology, culture, leadership, processes and skills, were identified as also fostering the development of DCs. For example, data was found helpful towards insight generation and predictive analytics. As an enabler of processes, technology was identified as a requirement for digitalisation, MO and NPD. Leadership is another crucial facilitator in the development of DCs, and whose absence can hinder the NPD process. The conceptual framework was also valuable in categorising specific DCs within digitalisation, MO or NPD. For example, all DCs created or enhanced by technology were categorised under digitalisation. Likewise, all the data-gathering capabilities were categorised under MO, while those that created market offerings were categorised under NPD.

3.7 Research Quality

Objectivist researchers criticise qualitative research for lacking rigour due to its interpretive and contextually-situated nature (Lee & Lings, 2008; Saunders, Lewis & Thornhill, 2016). However, unlike positivist research, qualitative research does not use validity and reliability to denote quality (Lee & Lings, 2008). Instead, it uses authenticity, plausibility and criticality (Easteby-Smith, Thorpe & Jackson, 2015). Furthermore, Guba (1981) and Lincoln & Guba (1985) suggest that quality in naturalistic research is demonstrated through trustworthiness, which is the ability to demonstrate that data is credible, dependable confirmable and transferable to other contexts.

This research, being AR, used authenticity as its quality criteria (Coghlan, 2019). In this case, authenticity required paying attention to the data, performing an intelligent inquiry, and making reasonable judgements and responsible actions (Coghlan, 2007; 2019). Additionally, it was necessary to pay attention to data quality in the collection and analysis processes through journaling and notes, such as the interview protocol. Ortlipp (2008) encourages novice researchers to keep a research journal, creating transparency in the research process. According to Ortlipp (2008), journaling generates reflexivity on a researcher's assumptions and helps identify their belief system and biases. These biases and assumptions should not be controlled; instead, they should but highlighted in the thesis, indicating how they might have affected the research process. Section 3.8.2 highlights my biases while section 6.6 discusses my assumptions and their effects.

3.8 Ethical Considerations

3.8.1 Ethics

As a requirement for this study, approval was attained from the university's Ethics Board (Appendix 5). Patton (2015) argues that researchers are also responsible for seeking consent from the participants before engaging them in a study. To comply with research ethics, I ensured that each participant signed a consent form before commencing the interviews. Data safety was ensured by locking all handwritten, print and electronic data to eliminate unauthorised access. Hard copy information relating to the study, such as my study journal, was kept under lock and key, while all data in electronic form was secured using passwords. The information will remain in my custody for five years, of which the participants were informed.

Ethical considerations are crucial elements of any research endeavour. Complying ensures that the participants are protected from harm and that credible data is collected (Easteby-Smith, Thorpe & Jackson (2015). Furthermore, consistent with the argument by Rowley (2012), protecting the participants is vital in enhancing the trust between the participants and the researcher, which reassures them that the protection will continue throughout the study. Furthermore, the AR methodology is based on a foundation of justice, participation, democracy, collaboration, and freedom (Oliver, 2010), also foundational ethical considerations for research involving human beings (Coghlan, 2019). Brydon-Miller & Greenwood (2006, p. 120) state that:

'Democratic collaboration, co-generation of knowledge, and a commitment to democratising human situations are the major guidelines that AR follows, and so it stands to reason

that the interests of the human subjects involved would be respected with care throughout the process'.

I complied with two categories of research ethics: procedural and practice ethics. According to Rowley (2012), procedural ethics protects the participants' anonymity and rights. The organisation is not revealed in this study, nor are there identifiable participant details. Keeping the organisation anonymous protects its strategies for creating marketing capabilities and digitalisation. In addition, when recording the data, the pseudonyms P1, P2…P10 were used to avoid disclosing participants' identities, job titles and contact details. Research ethics extends to compliance with the policies and regulations of the organisation under study. Antes (2014) emphasises aligning the research objectives with company regulations, laws, and practices that define professional conduct. I was privy to this requirement and obtained relevant approvals, including signing a nondisclosure agreement.

3.8.2 Pre-understanding and Bias

As a hybrid researcher – formally working with BPL and currently an outsider; I had worked with four of the ten participants, although they held different roles at the time. This unique position gave me the advantage of preunderstanding but also brought the challenge of access into the research. Preunderstanding refers to related knowledge and experience prior to a study (Gummesson, 2000). Access refers to both primary and secondary access. Primary access permits conducting research in an organisation, while secondary access targets people and information (Coghlan, 2019).

I had a preunderstanding of BPL and the four participants. I had worked in the marketing department, so I knew the processes within MO and NPD which was valuable for in-depth interviewing but could also easily have led to biases due to my previous experiences. At the same time, despite having worked at BPL, I had difficulty accessing information and people because I was considered an outsider. Getting some participants to agree to be part of the study was initially challenging, but they later agreed after reading the participant information sheet (appendix 3). To make it easier to gain access, I planned the interviews in a way that was most convenient for the participants, for example, near their location and on their preferred dates and time. I also organised for preparation meetings to update my knowledge of the organisation and the digitalisation project before commencing the interviews, which I highlight as reconnaissance in section 4.2.

To counter bias, Coghlan (2019) recommends developing a spirit of inquiry so that familiar issues are analysed from different perspectives to minimise taken-for-granted assumptions. I used open-ended semi-structured questions and member checking. Open-ended questions allowed participants to give detailed answers, which minimised the need for my own interpretation. On the other hand, member checking was used to verify that I had captured participant views succinctly. Coghlan (2019) and McNiff (2014) recommend self-awareness and reflexivity that allows for the questioning of own assumptions while collaborating with others to identify and minimise biases coming from preunderstanding.

I also applied reflexivity to assess my preconceptions and power dynamics between the four participants and me. It had been fifteen years since we had worked together, and I found that our jobs had changed so much that only a few of our previous working experiences were relevant. My preconceptions were recorded in a journal and evaluated after data analysis to check whether the findings were biased or based on inference. For example, I recorded that, during my

employment at BPL, there was a perception that MO gathered a lot of data but did not generate insights for the organisation. The findings from the study revealed that insight generation was now a strength at BPL, which I report in chapter four as one of the DMCs. Reflection on participant views revealed that BPL was a different organisation from the one I knew, and so much had changed that my biases were based on obsolete knowledge and therefore did not influence the findings.

To minimise power dynamics between myself and the four participants that I knew before the study, I used the participant information sheet to demonstrate that my current role was limited to that of a researcher. I informed them that my interest was in the current study and their work experiences, which they appreciated and, in the end, treated me as an outsider.

3.9 Summary

This chapter has identified and justified the methodological choices for this study. First, the rationale for adopting an interpretivist philosophy using an inductive approach to theory building is explained, revealing it as most suitable for a deep understanding of the processes that give rise to DCs at BPL. Further, the relativist ontology, acknowledging the participants' varied perspectives and experiences, and the subjectivist epistemology, are expounded. Finally, the handling of axiological assumptions is discussed, including the use of reflexivity to detect changes in participant views throughout the research process.

A qualitative methodology is ideal for its consistency with the interpretivist paradigm and the inductive approach to theory building. Furthermore, a qualitative methodology is the most appropriate in allowing themes to emerge, which in this study were interpreted as

DMCs. The core elements of AR and the cyclic nature of the steps involved in an AR study are highlighted. Finally, the sampling technique, the participants, the collection of data using semi-structured interviews and the use of thematic analysis are explained. The outcome, which is also the emergence of ten DMCs within the sales and marketing departments at BPL, is revealed.

Based on the methods, designs, techniques and approaches presented above, DMCs are identified within BPL's MO and NPD, as explained in the next chapter, which presents the study's findings.

4 CHAPTER FOUR: CYCLES OF ACTION, ANALYSIS AND FINDINGS

4.1 Introduction

The previous chapter explains the research design that was considered most appropriate to gather relevant data for the research aim and to develop actionable recommendations. This chapter espouses the iterations of the AR cycles through which data was collected and analysed. Creswell & Poth (2018) advise that data collection and analysis should be done in a 'natural setting sensitive to the people and places under study' … and that the final report should feature the 'voices of the participants, the reflexivity of the researcher, a complex description and interpretation of the problem, and its contribution to the literature or a call for change' (p. 8). This analysis endeavours to include all these elements.

The findings presented in this chapter are from two cycles of AR. The data collected using semi-structured interviews with ten sales and marketing department members at BPL generated the results. An interview protocol was used to ensure the same guidelines and interview process were followed for each interview. This chapter outlines the activities at each stage of the AR cycles and presents the findings.

4.2 Reconnaissance

According to Tripp (2005, p.451), 'action research begins with a reconnaissance'. Reconnaissance was critical in this study because I was considered an outsider. Therefore, I needed to understand the context and new practices the organisation followed, especially in MO and NPD.

I also needed to appreciate the participants' roles and the organisation's endeavours towards digitalisation, including the challenges faced.

Upon obtaining ethical approval from the university (Appendix 5), I approached a senior member of BPL. After discussing my research interests, we sought the company's legal authorisation to proceed with the research. Initially, I planned to have face-to-face meetings at the company premises. However, the university's and organisation's COVID-19 guidelines for preventing the spread of the virus, such as social distancing and personal preventive measures, motivated the study to adopt online discussions for the reconnaissance.

I booked a meeting with a member of the digitalisation project at BPL. Together, we sought to explore and understand the extent of the digitalisation endeavour, the outcomes, and the challenges. After that, I approached the sales and marketing departments to identify participants who would work with me on the research. Once the participants were selected, I explained the purpose of the study and demonstrated why it was timely for BPL. The initial list of proposed participants contained fifteen names which we narrowed down to ten based on individual roles and relevance to the study.

I engaged the participants aiming to understand their specific roles and their involvement with the ongoing digitalisation. We also discussed how the company used digital platforms for MO and NPD processes. These discussions aided my understanding of the organisational problem: the need to digitalise and develop DCs to enable BPL to respond to environmental dynamism. I also got insights into specific technologies that BPL was using to improve MO and NPD, which

helped narrow down the areas to investigate. From these discussions, I formulated the research objectives and wrote the interview guide. I then set the groundwork for data collection.

The information obtained in the reconnaissance became the input for the AR cycles and other areas of the study. For example, the organisational context outlined in chapter one, the research aims and objectives also in chapter one, the participant selection criteria outlined in chapter three and the interview guide (appendix 2) were all informed in the reconnaissance. The interview guide was also a result of the literature review and preliminary discussions with would-be participants. The reconnaissance also involved situating the organisational problem in the context of previous scholarly work through a literature review.

4.3 The Action Research Cycles

AR comprises repetitive cycles. This iterative nature of AR distinguishes it from other approaches (Tripp, 2005). Another distinguishing factor of AR is its collaborative and democratic nature (Coghlan, 2019). According to Bryman & Bell (2015), AR is a method where those experiencing a challenge and the researcher work together to diagnose issues and find solutions. During the entire research process, I worked with the participants from BPL to determine if DMCs can be developed through digitalisation. In cycle one, I collected primary data through interviews, revealing eight emergent DMCs at BPL. In cycle two, we worked together to confirm that the findings were, in fact, DMCs and implemented an intervention for change management. Cycle two also revealed two more DMCs, one strong and one weak. After analysing cycle two data, I came up with recommendations to develop the weaker DMCs. The study followed the four cyclic steps in AR: observe, reflect, plan, and act (O'Leary, 2021), as explained in the following sections.

4.3.1 Cycle One

4.3.1.1 Observe

To kick start the interviews, I emailed each participant requesting a meeting and included the details of the research as per the participant information sheet (appendix 3), consent form (appendix 4) and ethics approval (appendix 5). All the participants emailed back with interview dates, which fell in January 2022. By that time, the university had lifted the need for data collection using online channels only as had been necessitated by the pandemic. I, therefore, booked face-to-face interviews with each participant, each lasting approximately one hour. Nine participants were interviewed face-to-face, but one opted for a virtual interview because of the changing circumstances of the pandemic.

Since the interviews were face-to-face, I took notes on my password-protected laptop, to which only I had access. Protecting the data was an ethical consideration for this research, which required the prioritisation of data safety. Part of the reason for ensuring data safety was that it concealed the participants' identities. Before starting the interviews, I asked if the participants had read the participant information sheet and whether they had any questions. I then requested that they sign the consent form. Although the targeted participants were only ten, and each interview required an hour, the interviews took one month to complete because the participants had busy schedules, significantly reducing the time they were available to participate in the study. In addition, three participants postponed their interviews twice. Despite the uncertainties and delays, all the participants were finally engaged, and data was gathered from each targeted interview as planned.

The questions in the first cycle aimed at finding out what the participants understood about the extent of digitalisation within the sales and marketing departments and to identify technologies they deemed crucial to performing their roles that needed to be added. The questions further probed what the participants considered dynamic capabilities at BPL and how they impacted performance compared to the competition. The questions also clarified whether the participants were aware of missing capabilities that would be important to BPL. Additionally, I wanted to find out the processes within MO and NPD and how digitalisation was changing these processes. I did not lead the participants but instead asked the questions in ways that invited them to expound on their work practices and knowledge of the organisation.

4.3.1.2 Emerging Themes

The transcripts were imported into NVivo for processing. I opted for auto-coding, which groups data with similar words to generated auto codes (appendix 6). I then went through the codes and merged similar codes into themes. For example, the following codes were merged under the theme of digitalisation: change management, technology skills, digital technology adoption and customer relationship management. To arrive at the findings presented, I compared the codes with the research objectives and interview questions to ensure that only relevant codes were included. This process eliminated codes irrelevant to this study and aided in narrowing down findings and interpretation of those findings. For example, the codes generated 'Brand' as a theme, which I omitted from the findings since it was outside the scope of this study. This finding was unsurprising since brand building has been a critical strength of BPL. To clarify the naming convention, I used my experience from working at BPL and the interview transcripts. For example, from the themes excerpt (appendix 6), using the words of a participant, I named one theme insight generation. The supporting codes were: consumer, data, insights and knowledge. Similarly, the distributor network was interpreted as route-to-consumer since BPL has a distributor network that defines its RTC.

Finally, intuitively, through reflection, I could interpret the themes as DMCs, which I present in Table 4 below.

Category	Strong DMC	Weak DMC – to be developed
Digitalisation	Customer relationship management	
	Route-to-consumer	Technology adoption
	Effectiveness and efficiency	
Market Orientation	Insight generation and customer knowledge	
	Input into R&D and other investments	
NPD	Innovation culture	Speed and clarity of the NPD process

Table 4: DMCs Emerging from Cycle One

The findings indicate that BPL has eight (8) DMCs. Of the DMCs, six are strong, and two are weak and need further development. The strong DMCs at BPL are recognised as extraordinary in enabling BPL to remain a market leader through the stability they provide in task performance and the speed with which they allow change to happen. On the other hand, the weaker DMCs also support BPL's efforts to remain a market leader as they are core functions but are considered weak because they are slow in adapting to change. The six-strong DMCs are customer relationship management (CRM), route to consumer (RTC), effectiveness and efficiency, insight generation

and customer knowledge, input into research and development (R&D) and other investments, and innovation culture. The two weaker DMCs are technology adoption and speed and clarity of the NPD process.

4.3.1.3 Reflect

Marshall (2001, p. 433) advocates a 'self-reflective practice as a necessary core for all action research inquiry'. Reflexivity values subjectivity, and researchers have to explore how their beliefs, assumptions and values influence the outcome of a study (Varpio et al., 2021). Values-laden research acknowledges that findings do not naturally occur in a qualitative study but are shaped by the researcher's choices and methods. Critical reflexivity on these methods makes a study rigorous and transparent (Palaganas, 2017). In this case, I acknowledge that my beliefs, assumptions and judgement impacted the interpretation of data and, consequently, the study's findings, and as much as possible, avoided bias.

The findings reveal that BPL had already initiated a digitalisation agenda which was transforming some of the functions within the sales and marketing departments. Overall, the organisation was ahead of the competition. Still, a global competitor was expected to enter the market soon, necessitating BPL to develop more robust DCs in anticipation. COVID-19 has changed how people consume alcohol and socialise, significantly impacting the company's route-to-consumer. The country was under complete lockdown at the beginning of the study, which necessitated a shift from outlet consumption to home consumption. Distributors were still served directly by the company, but since bars and eateries were closed, BPL decided to reach consumers differently. The organisation introduced an online ordering platform all enabled by digital technologies. They also partnered with third-party delivery companies to ensure end consumers

were efficiently served. CRM and RTC were, therefore, effectively enhanced using new technologies.

The research team at BPL introduced online chat rooms to collect data from consumers directly without physical contact. They were able to get insights that consumers were purchasing more spirit brands compared to traditional beer. The changing consumer tastes and needs were still under investigation for insights. What made spirits more popular than beer during the lockdown? Was it the fact that people did not need to drive home from the pub? Is beer a social drink, therefore challenging to drink alone? Are spirits the opposite? The insights from these questions can shape the future of alcohol consumption, not just at a local level but globally. Consumption patterns are outside the scope of this study but remain an area of interest.

The critical decision by BPL to swiftly target consumers directly indicates the organisation's agility and rapid response to market dynamism. By so doing, BPL had already strengthened two key DCs, namely CRM and RTC. The foresight to start strengthening overall organisational DCs in anticipation of a global competitor further illustrates the leadership capabilities at BPL. Insight generation capability is one of the emergent DMCs at BPL and is evidenced by the action by the MO team to create chat rooms to interact with consumers. Even the fact that BPL is underway with digitalisation, ahead of other companies despite being old, points to strategic foresight and resource allocation capabilities.

4.3.1.4 Plan

To validate the first set of findings above, I used member checking. The technique is used in 'validating, verifying, or assessing trustworthiness of qualitative results' (Birt et al., 2016, p.

1802). Member checking aims to explore whether the findings represent what the participants described (Amerson, 2011). The preliminary results were discussed with the participants, and the emerging DMCs compared with the organisational reality described by the participants. I carefully summarised the synthesised data, safeguarding individual participant anonymity and confidentiality (Patton, 2015). No direct quotes from participants were used during member checking. I validated that the emergent DMCs represented real DMCs at BPL.

All the participants agreed with the findings as an accurate representation of the DMCs at BPL. We noted the two weaker DMCs, which became our focus. We decided to introduce an intervention with a change management component to address the slow rate of 'technology adoption'. Improving the other weak DMC, which was speed and clarity of the NPD process, required identifying and introducing new technologies, which is addressed later in chapter five. During discussions, participant comments indicated that the main issue driving slower technology adoption was a need for a change management programme to sensitise employees and business partners to the benefits of the new technologies introduced by the organisation. The second cause of slow adoption was the belief that technology would take over employees' jobs, as discussed by a senior manager among the participants.

In our discussions, it was suggested that technology adoption constituted change management. According to this view, digitalisation requires a change in mindset so that when new technologies are introduced, an accompanying change management programme is implemented. Therefore, together with the participants, we selected one person among us to become a change management champion. The departmental head gave the go-ahead for the participant to initiate the project within the sales and marketing teams. This individual had the requisite experience to drive

change and would work closely with the digitalisation team and the rest of us to identify the technologies with slow adoption and the issues thereof to address them accordingly.

4.3.1.5 Act

Slow adoption was identified in two leading platforms: the first was an ordering system used by distributors to place orders from BPL, while employees and bar owners used the second platform. For both platforms, the intervention involved giving as much information on the benefits of using the new technologies. First, the targeted users were given all the necessary information about each platform to demystify the systems - for example, what each system could do and how to navigate the system. They were then educated on the platforms' benefits, such as saving time and having a digital footprint for future reference. Finally, they were persuaded to use the platforms, and a usage tracker was installed. The users were also motivated through an incentive programme where usage was rewarded with trips, tablets and phones. The results after three (3) months were that; the usage by employees and partners had doubled.

4.3.2 Cycle Two

4.3.2.1 Observe

The AR cycle presented above gives valuable inputs regarding the DMCs at BPL, including which are strong due to digitalisation efforts and which are weak and need further development. I, therefore, went back to the participants for cycle two to probe further as per the study objectives. The same AR approach in cycle one was followed—four steps involving observing, reflecting, planning and acting (O'Leary, 2021).

The second set of interviews started with a probe into the intervention that was aimed at increasing the rate of technology adoption. The change management intervention increased awareness and doubled the usage for the two platforms identified. The concerns that had emerged in the cycle one findings concerning the slow adoption of technology were valid, and the intervention required a change management approach. When employees experienced the benefits of technology, it was evident that they became amenable to adopting and using the technology. For example, a salesperson might have previously given merchandise to a specific outlet category, only to realise the merchandise was wrongly matched and was better suited in a different category. With technology, the salesperson can now take pictures of the outlet and order merchandise online. The system would automatically detect the suitability of the ordered merchandise to that outlet and either proceed to accept the order or reject it and make other suggestions. The technology reduced the time to correctly match merchandise to an outlet and eliminated errors. These experiences with technology significantly improved adoption and usage.

I also probed further into the other DMCs identified in cycle one until data saturation was achieved. Then, the data from cycle two was auto-coded using NVIVO, as described in section 4.4.1.1. The analysis led to the emergence of two new DMCs within MO: one strong DMC, namely institutional knowledge management, and a weaker DMC, namely predictive analytics. Table 5 represents the results of cycle two, including the unresolved weak DMCs from cycle one.

Category	Strong DMC	Weak DMC – to be developed
Digitalisation		Technology adoption
Market Orientation	Institutional knowledge management	Predictive analytics
NPD		Speed and clarity of the NPD process

Table 5: Cycle Two Results

4.3.2.2 Reflect

Further probing during and after the intervention revealed that technology adoption at BPL is slow because BPL needs to equip staff and distributors with the necessary information to encourage uptake (P10). Another area worth considering is the age of employees at BPL. Having technologies that are friendly to all generations can accelerate adoption and minimise resistance. Most of BPL's workforce is older than the younger Gen Z, who are early adopters of change, including technology. Marketers' skills development is another significant finding from the study. The study emphasises the need for marketers to upgrade their technological skills with the help of the human resources department through training. Skills development in technology is part of change management that P2 argues is crucial if BPL wants to use technology effectively to develop DMCs.

During cycle two interviews, it emerged that BPL had accumulated extensive data through the years, from which they derived valuable insights for product development. Managing the vast

amount of information and insights is made possible through BPL's knowledge management, which includes collecting, storing, analysing and sharing data. Notwithstanding, the participants stated the need for predictive analytics to move BPL to the next level of analysis of this data.

Organisations must realise that more than collecting data in itself is required. The data becomes valuable only if it generates insights that guide decision-making. In cycle two, it was revealed that BPL had enhanced its MO capabilities using technology to collect data and extract insights. However, were these insights shared with the relevant departments, and were the insights used for decision-making? For example, was NPD guided by insights generated by the MO team? How did BPL verify the correctness of the insights? Had any bad decisions arisen from these insights, and what remedial measures were in place for such circumstances? Were the insights timely, or is that why the findings found NPD unclear and slow? These were the questions I sought to answer as I continued with interviews in cycle two.

Knowledge management was identified as a strong DMC. The MO team are the custodian of this knowledge, and despite the vast amount of information and insights they keep, this capability can improve. Part of this improvement is evidenced by the need to create a central data lake where all the information will be kept and shared across the organisation.

4.3.2.3 Plan

This study aims to develop DMCs through digitalisation. First, technology adoption as a weaker DMC was addressed through the intervention where staff were educated on the benefits of using technology in their jobs. The intervention revealed the weaknesses at BPL preventing technology adoption and shaped the thinking going forward. All new technologies will need a change management component to ensure fast and efficient staff onboarding. Giving detailed information on the benefits of the technology at the onset will facilitate learning and engagement with the technology. Additionally, setting measurable KPIs while introducing new technologies will allow BPL to benchmark against other affiliate markets and assess its progress. Then, I explored extant literature for solutions to develop the other two DMCs, namely predictive analytics and speed and clarity of the NPD process.

4.3.2.4 Act

The recommendations in sections 5.3.1 and 5.3.2 were discussed with the department head at BPL and will be considered part of the organisation-wide implementation of digitalisation to improve weak DMCs. Creating a data lake and sharing knowledge across the organisation will be instrumental in developing the predictive analytics capability. Additionally, predictive analytics will eliminate errors associated with human interpretation during insight generation. However, while technologies such as predictive analytics are necessary, marketers must still check the information for correctness. The speed and clarity of the NPD processes need a completely different approach. I found out that BPL was one of many organisations whose NPD processes had become slower than the fast-paced current market environment, which requires agility. One of the challenges making the NPD process at BPL slow originates from the tedious approval processes by the company's head office. The clarity issue results from the executive management

demanding a pipeline with too many products, which, when launched, causes confusion in the trade and for consumers. Additionally, the top leadership at BPL sometimes ignore market insights in favour of products that the head office prefers. It is common for MNCs to take control of the approval of an essential function such as NPD. Still, the need for control should not hamper innovation and creativity efforts by local teams. In the next section, I present the findings of this study.

4.4 Findings

4.4.1 Digitalisation

4.4.1.1 Customer Relationship Management

The company is automating its sales and marketing processes. Sales automation ensures that the sales team focus on ensuring that customer orders are fulfilled fast. At BPL, sales automation started with the introduction of DMS. One participant stated that DMS is where all customer information is stored, including order history and therefore is useful in planning future orders.

> *"...DMS is a single system that empowers firms to create an aggregate data on their clients in one place" (P6).*

P10 also noted that BPL is enhancing the existing technological tools to automate the workforce, including the design of route calls.

"...For example, the DMS tool is now developing an AI journey-planning tool for sales teams" (P10).

Sales automation aims to manage or own responsibilities that sales representatives and managers perform regularly. As a result, automated sales processes are more efficient and significantly improve the ordering experience for the distributors.

In the marketing function, BPL uses a platform called System 1 (pseudo name) that gives the distributors and retailers information about the brands. A senior manager among the participants observed that;

"System 1, as business-to-business (B2B) tool, enables trade partners to order directly from the organisation without going through the distributors. As a result, retailers can track their rate of sale and avoid stock-outs. In addition, it's an AI (Artificial Intelligence) enabled tool which gives the retailers information regarding our brands and promotions and allows for targeted promos and brands in the right channels" (P10).

At the consumer level, the digital platforms that the company introduced facilitate product access and a smooth purchase process. The findings show that BPL uses technology to reach consumers. One interactive digital platform BPL uses to engage consumers is Wowzi. This platform uses influencers to promote a brand, as noted by a senior manager.

> *"Wowzi connects a brand to micro and nano influencers who use word of mouth and social media publicity to market our brands. By using influencers and not having to advertise our products through traditional media channels, Wowzi is disrupting the media landscape"* (P2).

BPL uses Wowzi to advertise and gather insights from consumers directly through the influencers' social media pages. The disruptive effect of Wowzi has changed how businesses use online platforms to achieve their marketing prospects. Given the effectiveness of technology, it is evident from the study that technology has the potential to change how BPL's products are accessed and consumed.

Digitalisation has brought the company closer to its customers and consumers. In this study, the word 'customers' refers to BPL's business partners, such as distributors and retailers, while 'consumers' refer to those who consume the products. While the use of CRM is a common feature in many organisations, the way it is implemented at BPL makes it dynamic. BPL has created a large network with its distributors, thereby ensuring that products are delivered fast to all forty-five thousand outlets across the country, some in very remote areas. Additionally, digitalisation enables the management of distributors as partners whose success is equally important to BPL, and has resulted in exclusivity.

4.4.1.2 Route to Consumer

According to the participants, BPL's route-to-consumer is a key strength and one of the most significant differentiating factors from the competition. Traditionally, the firm used distributors and retailers (pubs and eateries) as the main distribution channels. However, with the

help of technology, the firm has progressively moved to omnichannel by incorporating e-commerce platforms and digital applications as distribution channels, as noted by a member of the sales team.

> *"Previously we were selling only through distributors, but we are now transforming progressively to omni channel, e-commerce and B2C approaches"* (P6).

A similar observation was made by one of the heads of department.

> *"Smaller competitors had established better online presence than us because we relied solely on our distributors and retailers"* (P1).

RTC and CRM go hand in hand at BPL after recognising that availing products fast to the different channel members and end consumers is a strategic imperative for the firm. RTC is considered a DC at BPL because with the use of technology, distribution has increased by twenty-five per cent in the last three years, to cover more outlets; stocking eighty per cent of BPL's SKUs.

4.4.1.3 Efficiency and Effectiveness

Based on the findings, digitalisation drives process efficiency. For example, previously there were six commercial reports, but with digitalisation, the reports have been consolidated into one, making it easy to prepare, share and access the information. P7 pointed out these improvements.

"The reports are consolidated and simplified, containing all the crucial information, so nothing has been lost. Furthermore, everything is digitalised, so no more printing or carrying reports. I also like that the systems speak to each other…." (P7).

The notion that 'systems speak to each other' alludes to the ease of integrating data from different sources and ensuring they make sense in decision-making. Digitalisation has simplified access to marketing information, real-time, efficiently and simply, thereby allowing timely decision-making. Effectiveness also enhances performance evaluation. According to one of the participants, BPL launched Marketing Catalyst in 2017 to provide Marketers with insights on growth drivers and track their advertising and promotion budget.

"Marketing Catalyst, launched in 2017, gives marketers more insights on growth drivers, media spending and ROI. It also helps with GAME plans (annual marketing plans) by providing the intelligence behind GAME plans" (P10).

The effectiveness of technology in performance evaluation depends on the use and embedment of technology in decision-making. A participant noted that BPL's ability to use technology effectively enables it to improve its use of the marketing budget.

"The marketing catalyst tool tells you where you are overspending or underinvesting. If tools are used properly and embedded in decision-making, they help. For example, using technology has tripled the marketing effectiveness score" (P2).

Justifying marketing expenditure and analysing its return on investment is a big challenge for Marketers. With the marketing catalyst tool, managers are now able to determine the ROI for various activities which results in better use of resources.

4.4.1.4 Technology Adoption

Despite the advantages associated with technology, the staff at BPL did not adopt the new technologies as enthusiastically as was expected. For example, when asked which technologies were essential but lacking at BPL, a participant observed that the challenge was slow adoption.

> *"Maybe the issue isn't so much technology that we do not have, BUT how we are using what we already have. I don't think people have embraced technology as I expected they would" (P1).*

Resistance to change towards digitalisation was also evident, due to the fear that technology would displace workers. The study showed that when people fear job losses, they are unwilling to adopt new technologies.

> *"Technology has moved ahead of people. For BPL specifically, people have an attitude issue, so they don't use the technology as well as they should. They think technology will take over their jobs*" (P2).

An organisation's resistance to change can be caused by a lack of institutionalisation, especially of the digitalisation agenda. This applies to BPL, where people in the company were unaware of the need to adopt and use the technologies available as indicated in the following statement.

> *"...the technologies are not institutionalised, and people are at very different levels of competency depending on their mindset. Some people like to adopt new things quickly while others don't"* (P6).

Resistance to change was a threat to digitalisation at BPL because the new technologies were perceived as competing with legacy systems. Additionally, the company seemed not to have taken the time to educate staff about the necessity and use of these newer technologies. Lack of training and professional development limits people's competency in the use of technology. As a result, the employees could potentially miss market opportunities, especially those that only became evident on digital platforms.

An evident capability gap in BPL threatens the consistent use of technological resources to improve processes. A capability gap occurs when companies have tools or technologies but do not optimally utilise them as pointed out by a user at BPL.

> *"There is a capability gap within BPL, and they are not doing anything about it. i.e., There is a gap between technology available and adoption of that technology so that you find most people do not use the technology as they should"* (P2).

Unutilised technological capabilities implies that BPL is not exhaustively using its resources. It also means that the company is wasting resources that could have improved its DMCs. For example, technology has the potential to generate market information that the company needs to respond to customers' needs.

Based on one of the participant's observations, while technology is good, it can be discriminative. For example, some forms of technology that use artificial intelligence (AI) have algorithms that target only males.

> *"Technology is good but also discriminating against women because most algorithms are based on male behaviour. So, marketers need to find ways to intervene and speak to diverse audiences"* (P2).

When technology causes discrimination, it may hinder how organisations respond to the market needs of the unrepresented category. However, as reported by participants, the digitalisation efforts at BPL had been fruitful. Three strong DMCs had emerged under digitalisation and the weaker one, technology adoption, needed an intervention. The next section presents findings of the MO category

4.4.2 Market Orientation

4.4.2.1 Insight Generation and Consumer Knowledge

The core aim of MO at BPL is to generate insights that become the basis for the company's strategic choices. As a result, insight generation capability is one of the strong DMCs that became evident from the study. Through various retail and consumer research, BPL draws insights that enable its managers to respond to the market promptly with relevant products, as shown in the following extract.

> *"The ability to extract insights out of market data is the biggest DC for BPL.' Insights' is defined as any data that has a profound, penetrating revelation that can be actioned for growth*" (P3).

The study showed that BPL uses a centralised data mining approach to gather insights. The company has a strong commercial orientation with established routines, defined Key Performance Indicators (KPIs), data foundations, and centralised reporting teams. BPL records good performance and has a reputable image. To achieve such status, the organisation relies on data.

> *"At BPL, there is aggregation and centralising of different sources of data available at different structural levels of the organisation (Market Share data, Retail Audit, Brand Audit, TRAX, SAP, System 1)"* (P9).

Centralised data mining involves consolidating data into one central database to avoid duplication. BPL is centralising the collection and processing of data using digital tools such as DMS, which facilitates data interpretation and validation, enabling the research team to interrogate the data for insights that inform the customer strategy. Additionally, another system, TRAX, provides details of all the brands available in any given outlet and generates depletion reports that trigger reordering. The brand audit report, market share report and retail audit report are monthly reports generated by third-party providers who track the performance of BPL brands in the market. P7 also listed 'Ajua for SMS', SAP, Tableau, and System 1 as examples of digitalisation tools that are enabling BPL to conduct data centralisation.

At the time of this study, BPL was working towards complete data centralisation as noted by one participant.

> *"Cross-functional teams are working together to bring all the data together through an enterprise data warehouse. Currently there's human intervention in the systems which they want to eliminate"* (P6).

Market insights are critical in guiding media spending and other strategic responses such as product development to meet customer needs. However, for the data to be useful in decision-making, an improvement is required in the data quality and integrity. It was evident from the study that DMS needed a clean-up because it contained duplicate data.

"The DMS data is not clean because we have duplicate and inactive outlets. Geo codes also need to be checked because if an outlet has not been visited recently, it shows that neither the distributor nor the sales people know the outlet" (P10).

Additionally, P2 noted that advanced analytics is needed to guide the company in developing new products based on market needs.

"Using analytics, BPL can understand consumers well. For example, we can analyse consumer demographics, behaviour and purchase habits" (P2).

Analysed data reveal consumer demographics, preferences, consumption patterns and geographical location. The information is then used to guide BPL on market segmentation and product placement.

Similarly, P10 understands the need to communicate with consumers in a manner that resonates with them.

"For example, if I want to recruit females, then the communication needs to be targeted at females" (P10).

From the market data that BPL gathers, the market is segmented into twenty-eight categories. Initially, the company had six broad categories, but with the ease of collecting

consumption data using technology, Marketers have further subdivided the six into more categories. The advantage of having many categories is that the organisation can develop products for smaller target groups, thus ensuring no gaps or unclassified consumer groups.

> *"We have managed to segment the market further from the original 6 categories to 28. The segmentation has helped the organisation focus on which products to sell to which outlets and for which consumers. If we did not have such specific data, we could easily lose focus because we have up to 200 SKUs" (P6).*

Market segmentation ensures that needs from each specific group are identified to optimise distribution and develop targeted marketing campaigns. BPL made the right decision to increase the segments because further segmentation has increased customer knowledge, which aids in focussing attention to smaller consumer groups ahead of the competition.

Social media platforms have also become part of BPL's technology that collects market data. The advantage that social media presents to marketers is easy access through mobile phones and its interactive nature. The interactivity enables marketers to interact directly with consumers and collect crucial information for insight generation. Examples of social media apps BPL uses are described below.

> *"BPL uses Facebook communities, WhatsApp groups, Friendship triads (you recruit one person who snowballs through an App), SMS panels and semiotics/consumer interest groups (you find consumers on a platform where their interests are)"* (P3).

The interactive nature of social media allows consumers to express their concerns freely. Social media platforms such as Facebook also enable consumers to give reviews for brands and products through comments. Companies thus collect a wide array of information from social media platforms quickly, relatively cheaply and efficiently to help them tailor products to specific consumers.

4.4.2.2 Input into Research and Development and Other Investment Decisions

R&D is one of the crucial functions through which companies use insights to develop new offerings. R&D includes activities undertaken by companies to create innovative products for consumers or solutions to business needs. The study found that BPL uses technology to collect, analyse and transmit data faster.

> *"We leverage technology like Ajua (a system for sending short messages to consumers) for faster collection and analysis of consumer and market information"* (P4).

Additionally, the data at BPL is translated into insights that become the input for the NPD team.

> *"The data from the research team that is given to the new product development team is quality data that works to provide suitable insights for product development*" (P9).

The study showed that BPL's research function has recently introduced the use of technology to improve the speed of data collection, analysis and generation of insights. The COVID-19 pandemic has been identified as one of the factors that necessitated technology use in the company. During the pandemic, the government imposed social distancing, lockdowns, and restricted gatherings thereby limiting human to human interactions, and paved way for the use of technology as a way to communicate with consumers.

> *"The use of technology was also largely accelerated by COVID-19. Previously, we relied on focus groups and consumer research for insights but those types of researches take long to get data. Now we use text messages and social media"* (P2).

For BPL, this means sending marketing campaigns and conducting consumer surveys digitally. Technology also quickens the flow of information from consumers back to the company, leading to improved research processes.

> *"At BPL, we use SMS and WhatsApp to collect data from the field. The data is 95% trustworthy, making mining easy"* (P5).

The study indicated that the company started investing in data for R&D long before its competitors.

"BPL invested in various data sources, four years ago, ahead of our competition. Now what we need is predictive analytics, for example, outlet analytics to tailor solutions" (P10).

P6 further noted that varied data sources are helpful to triangulate results; for example, 'DMS' focusses on what retailers buy directly from BPL while 'SAP' provides details of what BPL ships out to its distributors. 'Scan data', on the other hand, gives details on instore consumer purchases. Additionally, BPL uses technology to conduct consumer research and retail audit as explained below.

"At BPL, there are different types of research: a) Consumer research which gives us brand equity scores, perception, attitude and usage; b) Retail audit, which provides information about stock levels, outlet prices, rate of sale and market share. All our research is, however, collected through contracted third-party suppliers. Such an approach is unique because the organisation has resources to hire professionals" (P3).

The research team also relies on insights to set organisational priorities and remove conflict among departments with varying needs as observed by a member.

"Insights give the research team the ability to prioritise. Once you have all the data from institutional memory and tacit information, you must first classify and prioritise important tasks. You develop the ability to influence others through evidence, especially in an organisation where different departments have conflicting priorities" (P3).

Additional use of BPL's data provides the broader organisation with insights into identifying investment areas. Information from the MO team enables the company executives to make informed decisions on where to invest.

> *"The marketing team uses the data from DMS and SAP to build brand campaigns and targeted promos while the human resources team uses the same data to determine if the organisation has enough manpower to serve the outlet universe"* (P10).

The study findings reveal that BPL has invested in data collection from consumers and outlets through various means, such as their DMS system and professional agencies. The data is converted into insights that become the basis for further research and development of new products and investment decisions for BPL. The next section highlights the findings that emerged in the NPD category, which uses the insights from MO to develop new offerings for BPL.

4.4.2.3 Institutional knowledge management

Cycle two data showed that Institutional Knowledge Management is a dynamic marketing capability at BPL. Institutional knowledge management involves using past learnings to inform future decisions such as what technologies to introduce at BPL as expressed by the participant.

> *"BPL looks at learnings from the past - path dependence. Our history determines our future. We are also very good at Measurement and Evaluation (M&E). These learnings are used to inform decisions for the future"* (P3).

There is a necessity for developing integrated capabilities through the exploitation of knowledge resources at BPL. The same participant pointed out that BPL needs to use its knowledge resources better so as to benefit the whole organisation.

> *"BPL must pull all capabilities together to build a strong business. BPL is very strong in insight generation but sometimes embedding the knowledge in the organisation is problematic*" (P3).

4.4.2.4 Predictive analytics

The role of DMCs is to assist organisations respond to consumer needs amid market dynamism. Failure to have technologies that predict future trends and how consumers may behave in a given period can deny companies the ability to achieve the desired levels of improvement. Technology has given BPL an upper hand by aiding in its understanding of the market and consumers, thereby shaping the market offerings as explained in the following statement.

> "*We can decide what products to make and shape the market. For example, there are many trends we have introduced and stayed ahead of the competition. We know the next wave is tequila, so by now, we should already be thinking of a new tequila flavour* (P1).

The study shows that BPL would like to use predictive analysis as part of their data maturity to understand the possible future outcomes of their marketing activities and adequately prepare for

them. There are technologies which can be used to predict future trends and consumer behaviour, thereby significantly influencing consumption, as expressed below.

> *"We need a technology that can take the information at BPL and give predictive analytics. Future consumption will be based on how well technology predicts consumer and market behaviour" (P2).*

Moreover, predictive analytics can be used to evaluate performance against expected trends and offer corrective actions as noted in the following comment.

> *"If sales numbers are not going as expected, the sales or marketing teams can use predictive analytics to design remedial measures"* (P10).

BPL can also use predictive analytics to develop solutions that satisfy market needs ahead of other industry players. Satisfying consumer needs is instrumental in maintaining its industry leadership position as opined by one of the participants familiar with BPL's market intricacies. The same participant sees predictive analytics as useful in establishing future business needs.

> *"Predictive analytics will help us stay ahead of the competition. We know there are global players with plans to enter this market so how will we stay ahead of them? Predictive analytics will also feed into other decisions in the business, for example, what skills to employ for the future needs of the business? What brewing methods to use and what types of grains to grow for beer making*" (P8).

The participants also opine that BPL requires technologies which can predict innovation success. As shown from the study findings, having predictive capabilities can ensure an immediate change of products to suit market requirements, but this requires flexibility, agility, and experimentation (P10). In addition, predictive analytics should quickly predict behavioural change in consumers after the launch of a product to aid BPL make necessary adjustments. Besides predictive analytics that delve into consumer behaviour, two participants (P5, P9) stated the need for technologies that would enable them to get last-mile data from outlets. Last mile data is information derived at the point of consumption. Such data would help the organisation set realistic goals for outlets and act speedily in case there is a need to intervene.

> *"There are forty-five thousand accounts countrywide. Is it possible to get consumption data from all of them, at least even the top 10k accounts, and in the various segments? We need technology that can tell us our share of wallet per account, segment, and channel"* (P5).

Digital technologies can give predictive trends up to specific retail outlet level for quick turnaround of solutions.

4.4.3 New Product Development

4.4.3.1 Innovation Culture

The study shows that the company has a strong innovation culture, also evidenced by the fact that BPL is among the first organisations in the industry to digitalise. However, one participant pointed out that BPL has solely focused on the innovations with the best commercial prospects, rather than developing products that respond to market needs. Furthermore, BPL fails to give the NPD team adequate time for effective product development. The result is rushed products that do not satisfactorily meet consumer needs as noted in the following statement.

> *"We do commercial innovations as opposed to responding to real consumer needs or trends. We also don't give the NPD team time to develop products"* (P2).

P2 further said that the top three reasons why people refrain from alcohol consumption are affordability, health and taste. What that means for BPL is that they can choose to develop tasty, affordable products and, simultaneously, address health concerns through low alcohol products.

> *"There's an opportunity to address affordability, taste and even health. For example, we could develop a low-cost drink, with no sugar, and no alcohol"* (P2).

As a company that has cultivated an innovation culture, BPL should be open to product ideas beyond its core alcoholic beverages. When asked about BPL's challenges with NPD, P9 said;

"We might be missing an opportunity to develop non-alcoholic drinks… there is a market out there for non-alcoholic beverages" (P9).

However, P10 does not think there is a culture of experimentation at BPL due to its heritage.

"There is no culture of experimentation. We are not as agile, but this could be because of the age of the company. BPL needs to move faster and take advantage of new trends like home drinking and online ordering" (P10).

Despite the perceived lack of an experimentation culture, P8 identified three classifications of innovations occuring at BPL which are, 'grow', 'expand' and 'new creation' as explained below.

"to 'grow' is when only minor changes are made to existing products, for example, a brand label or bottle change. To 'expand' is to introduce a variant of an existing brand while a 'new creation' is when we develop an entirely different product or enter a new category" (P8).

One of the strengths of NPD at BPL is that the top leadership is supportive and provides adequate resources. The findings also reveal that BPL views NPD as a long-term strategic process which compells the leaders to invest in digital technologies that enhance innovation quality and speed.

Additionally, BPL considers innovation a significant growth driver. As a result, the company's leadership expect that twenty-five per cent of total sales derive from new products. To achieve this, BPL must prioritise developing and promoting new products.

However, there is a weakness, because while the company exerts pressure for new products to perform well it fails to specify the point at which a product is no longer new. This was pointed out by one of the participants.

> *"BPL does not support new brands or products as well as it should, and yet there is a lot of pressure to grow new products. At what point do you stop calling an innovation new? What is the cost of building brands? Shouldn't we get more money to advertise new products if they are the growth drivers?"* (P10).

In contrast, P6 clarified that at BPL a new product is those launched within the past five years. By limiting the years that a product is considered new, organisations create room for newer products. In addition, it motivates the teams to constantly look out for consumer and market trends.

> *"A new product is those below five years or a specific threshold in sales. Being restrictive gives the NPD team an impetus to keep innovating"* (P6).

The success of NPD at BPL is also partly influenced by the organisation's willingness to take risks. Risk-taking means exploring business opportunities with a mindset that the outcome could be success or failure as expressed below.

"Taking risks is allowed because not every product will be successful, and since one cannot determine with certainty the rate of success or failure, we must have a wide pipeline that allows for some failures" (P4).

The company allows a level of failure in innovation and looks at failure as a source of learning. If the company does not accept some degree of loss, employees would desist from trials and experimentation in product development. Instead, allowing for mistakes has fostered innovation and creativity. P4's statement, however, contradicts the sentiments that BPL is not experimental.

P10 suggests that BPL can attain the desired efficiency level by quantifying inefficiencies in the innovation process.

"Let's find a tool to quantify the inefficiencies in NPD. Also, get better sources of data behind new trends and better data behind new liquid suggestions" (P10).

The study further reveals that innovating in service delivery is an untapped opportunity.

"Innovation in service delivery is an area we have not touched. How can we improve the way consumers access and enjoy our products? For example, how do we ensure consumers get a cold serve in every outlet?" (P8).

A cold serve is an expression used by BPL to mean a refrigerated drink. The company invests in refrigerators, which are given to retailers depending on their sales and share of BPL's products. However, not all outlets qualify to get a refrigerator, resulting in drinks being served at room temperature, which is not ideal for some products.

Availability of resources is a crucial consideration by companies that want to compete effectively. The resources can be in the form of time, financial or human. Human capital is one of the most critical resources that BPL relies on to retain its position as a market leader. As one participant noted, BPL owes its success partly to having strong human capital demonstrated through the quality of leadership.

> *"Leadership and human capital are critical to our success. The company keeps investing in leadership trainings, for example, the sales leadership capability building that is currently ongoing"* (P6).

The organisation attracts and retains talented employees through its recruitment, remuneration and training policies resulting in highly qualified individuals in top management. The study reveals that the company is also willing to provide the required resources to finance its marketing activities.

> *"Our product launches are accompanied by powerful advertising and promotions so that new products/brands are supported until they become stable. This is made possible by the company's willingness to invest a portion of its revenue back into product advertising" (P9).*

Ensuring resource availability enables the marketing and production departments to integrate their efforts in consumer needs identification, anticipation, and production of BPL's products. Some organisations create separate teams, often comprising of people with creative and disruptive minds, to focus solely on new products. BPL does not have an independent team of disruptors for NPD, which may limit the organisation's future ability to innovate. One of the participants who previously worked within NPD departments of different multinationals acknowledges that BPL's competitors use disruptors for innovation.

> *"Competitor A has a disruptive team within the business for ideation and nurturing innovation. Similarly, competitor B has an incubation team separate from the main commercial team to enable them to focus on new products"* (P8).

Despite the lack of disruptive teams, the study indicates that BPL's teams have the technical competence to develop new products. Technical competence accounts for the skills necessary to perform a task. A participant who works closely with the product development team was confident of the team's capability.

> *"The team has the technical competence for new product development but we don't give them enough time to be innovate. They are always pressured to launch a product quickly. I think we need two separate teams so that the creative team tracks trends to come up with creative drinks, and the NPD team actualises what the creative team proposes"* (P2).

Technical competence is a crucial factor in meeting customer needs. The NPD team, working collaboratively with the production team, take the product specifications from market insights and produce exactly what is required. It would be impossible for BPL to meet consumer needs if it lacked the technical competence to develop the right products. Despite the focus on NPD at BPL, there are concerns regarding the speed of the NPD process, which are highlighted in the following section.

4.4.3.2 Speed and Clarity of the NPD Process

The participants have mixed feelings concerning the strength of BPL's NPD processes. Some participants think the NPD process is slow, while others think it is fast enough. Those who think it is slow are in operational roles, primarily teams that face fierce competition in the market. Those that think the speed is adequate are in senior roles, hence they likely have more information on why the process is slow. All participants agree, however, that BPL is ahead of the competition in terms of the number of new products developed annually and the overall product offering available, as noted by a senior member of the team.

> *"Overall, the company's new product development is outstanding. For example, we have recently launched two new brands and a brand extension"* (P2).

Most participants opine that the organisation has a robust NPD process because of the 'Stage-Gate®' method that guides NPD from ideation to commercialisation. The local and global teams also work collaboratively to enhance their collective innovative capability. Digital technologies facilitate interactive processes that allow the sharing of ideas between teams in different location, as pointed out by one of the participants.

"The NPD GATE process is highly acclaimed and comprises a mix of people from the local and global teams. The global NPD team helps the organisation anticipate and overcome challenges since they are involved in many other markets and are aware what could go wrong" (P4).

Despite recognising that BPL has a robust NPD process, some participants thought the process is slow because the Stage-Gate® process lacks agility. A participant observed that additionally, internal and external constraints such as legislation and approvals from the organisation's head office further slow down the process.

"The centralised global approval process makes our product development process slow especially on brands owned by the parent company. Inception to actualisation takes too much time because of the processes involved like multiple product testing that has to be done at the parent company" (P6).

Another participant highlighted the need to launch products in response to market needs ahead of the competition.

"The NPD process is slow. When we identify a need in the market, we need to move fast before the competition does. With more competitors entering our market, we need to speed up our processes because innovation is what will differentiate us in the market" (P1).

BPL has a strong innovation culture backed by a robust Stage-Gate® NPD process; however, the organisation needs to improve the speed at which they develop new products in the face of intensifying competition.

The NPD process at BPL is slow despite speed to market being a crucial factor for success. The delay is caused by BPL's head office's long and laborious approval requirements. The hierarchical organisation structure and the need for extensive stakeholder engagement, including government and regulatory agencies, further impede the development process. The speed is slowest at the initial stages as expressed in the following statement.

> *"We need to improve the NPD speed at the initial stages of ideation and development. When the product is launched, the speed tends to pick up"* (P3).

From the study, it was also evident that BPL's executive management interfere with the NPD process by ignoring the insights upon which developments are proposed and choosing instead, to develop different products, especially those that the head office prefers.

> *"The Market Orientation team gives insights to the NPD team that then comes up with a product, but EXCO (executive committee) gives contradictory directives that don't work. They ignore the insights from the market"* (P6).

Despite the slow speed, BPL is successful with its new products once launched as P3 indicates.

"Our innovation success rate is 30% in BPL. The success rate is better than most other markets where the MNC operates, which is at 20% (P3).

Another participant, P10, opines that BPL could exhibit more clarity in the NPD process, by reducing the number of products developed concurrently.

"Don't bring too many products simultaneously because they burn out the trade. The NPD team needs to do a thorough analysis of the impact of a new brand into the market in the entire value chain to avoid leaving distributors and retailers with slow or obsolete stock" (P10).

Where functions operate in silos, it is common to find that a team such as NPD, develops products that despite being informed by insights do not take into consideration the impact to the rest of the value chain such as purchase of raw materials to the amount of stock in the market.

4.5 Summary

This chapter began by describing the iterative steps in the two AR cycles and the collaboration with participants. The work done in each AR cycle is explained and broken down into four steps: observe, reflect, plan and act. The reconnaissance is explained as a needs analysis that developed the research topic and yielded information that guided the research. Data was collected using semi-structured interviews with ten sales and marketing department members at BPL. The use of an interview protocol to ensure the same process for each interview is also explained. The findings are offered based on the information generated from the qualitative data.

The themes that emerged are interpretated as DMCs. The strong DMCs are CRM, RTC, effectiveness and efficiency, insight generation and customer knowledge, input into R&D and other investment decisions, institutional knowledge management and innovation culture. These seven DMCs in the sales and marketing departments of BPL make the organisation unique in its approach to consumers and could explain its market dominance.

The weaker DMCs that emerged from the study include technology adoption, need for predictive analytics and the need for NPD process's speed and clarity. The slow adoption of technology is addressed through an intervention that implemented a change management programme to increase the usage and adoption. The need for predictive analytics and the speed and clarity of NPD process are addressed as part of the study recommendations in chapter 5 which follows.

5 CHAPTER FIVE: DISCUSSION AND ACTIONABLE RECOMMENDATIONS

5.1 Introduction

The previous chapter offers the findings based on the DMCs generated from the qualitative data. This chapter interprets the results in the context of extant literature. It will begin by highlighting the strength of DMCs at BPL, then explain the interventions sought to develop the weaker DMCs. Finally, the chapter will highlight the study's implications for practitioners.

The study's aim was to investigate the use of digitalisation to develop DMCs. Qualitative data collected was subjected to thematic analysis where ten themes which are also interpreted as DMCs at BPL emerged, as summarised in the following Table 6.

Category	Strong DMC	Weak DMC – to be developed
Digitalisation	Customer relationship management	Technology adoption
	Route-to-consumer	
	Effectiveness and efficiency	
Market Orientation	Insight generation and customer knowledge	Predictive analytics
	Input into R&D and other investments	
	Institutional knowledge management	
NPD	Innovation culture	Speed and clarity of the NPD process

Table 6: Summary of DMCs at BPL

The strong DMCs, as depicted in Table 6 above, are: customer relationship management, route-to-consumer and effectiveness and efficiency under the digitalisation category. Under MO, BPL has developed DMCs allowing the firm to generate insights that aid in consumer understanding. The same insights become the input for R&D and other investment decisions for the company, making the MO team the centre for institutional knowledge management. Under NPD, BPL has developed a strong innovation culture driven by the NPD team's resource allocation and technical competence. While BPL has digital platforms to improve the processes in its MO and NPD functions, resulting in strong DMCs, three processes require further capability development. These are technology adoption, predictive analytics and the speed and clarity of the NPD process. Technology adoption was developed through an intervention discussed as part of the AR cycles in chapter four. The other two weak DMCs will be addressed in the recommendations discussed as part of the 'action' in section 5.3. The section that follows highlights the strength of DMCs at BPL.

5.2 DMCs at BPL

While the DMCs highlighted below are found in most organisations, at BPL they are *dynamic* because they have been able to create, extend or modify ordinary capabilities (Winter 2003). The study data is combined with my own experiences as a scholar-practitioner to interpret how BPL develops and could further enhance its DMCs through digitalisation. Scholars have consistently pointed out the importance of organisational processes, routines, structures and human interaction in developing capabilities (Teece, 2007; Abell, Felin & Foss, 2008; Felin & Foss, 2009; Schwarz, Rohrbeck & Wach, 2019). BPL, an established organisation, has highly routinised processes and defined work structures. There are high levels of human interaction visible through observation and the kind of output the organisation offers in the marketplace in the form of products and services. Below, the DMCs evident at BPL as a result of this study are discussed.

The discussion follows the same format used in analysing the DMCs under three categories, namely, digitalisation, MO and NPD.

5.2.1 Category: Digitalisation

The study findings reveal that BPL is committed to digitalising its business processes in response to the technological disruptions that firms are experiencing. Adopting digitalisation and industry 4.0 technologies has been consistently viewed as the best approach toward providing different opportunities and benefits to firms amid technological disruptions (Chirumalla, 2021). The benefits of digitalisation include improved product quality (Plekhanov & Netland, 2019) and improved operational efficiency (Bilgeri, Wortmann & Fleisch, 2017). The success of digitalisation at BPL is evidenced through enhanced CRM, RTC and effectiveness and efficiency of routines, as explained below.

5.2.1.1 Customer Relationship Management (CRM)

CRM is the use of different tactics to prolong the value of the customer to the organisation (Kumar & Reinartz, 2012, p. 38). CRM facilitates a single integrated view of customers, regardless of the communication method, so that the relationships with existing and potential customers are managed effectively (Chalmeta, 2006). Furthermore, CRM focuses on value creation (Kumar & Reinartz, 2012), which occurs when firms utilise their customer network to accumulate knowledge and improve marketing programs' design, implementation and evaluation. Another aspect of CRM is consumer engagement, which reflects customer interactions with brands, offerings, or firms (Hollebeek, Sprott & Brady, 2021)..

The study reveals that digitalisation at BPL enhances its CRM. The adopted digital platforms, such as DMS and System 1, improve relationships between the firm and its customers. BPL's exclusive distributors use DMS to place and track orders. System 1 is used by other customers, such as retailers who prefer to buy directly from the company. To engage with consumers directly, BPL uses two platforms: Wowzi and Party Central. The importance of companies developing long-term relationships with customers and consumers is crucial in the current era of volatile markets. Past literature emphasises that the sources of profit and business success are founded on the satisfaction of customers and the relationships that firms create with their consumers (Kotler et al., 2018).

CRM is a practical approach for firms to integrate sales, marketing, and service strategy and to enable them deliver optimal value by integrating the full set of customer interchanges with a relationship focus (Kalakota & Robinson, 2001). Moreover, the comprehensive set of processes and IT systems that characterise CRM assist in product and service delivery to all stakeholders, especially end-users (Greenberg, 2001). The strategic goals of CRM include winning and maintaining profitable customers through a culture founded on customer-centricity, which means that organisations exhibit an unquestionable dedication on customer satisfaction. CRM is considered a real DMC alongside MO and NPD (Barrales-Molina, Martínez-López & Gázquez-Abad, 2014). Having a strong CRM capability means BPL can expand the customer base and rely on the relationships for insights and continued growth. Business partners, whether distributors or retailers, are usually the first to warn BPL of competitor activity and to note changes in consumption patterns. Therefore, BPL enjoys close ties with its business partners with the understanding that together, the parties are stronger.

5.2.1.2 Route to Consumer

BPL uses the expression 'route-to-consumer' (RTC), a newer version of the more traditional 'distribution' or 'route-to-market' terminologies. Distribution relates to all the business activities firms like BPL use to reach their target consumers (Bucklin, Siddarth & Silva-Risso, 2008). The study findings indicate that BPL has an effective RTC, which gives the organisation a considerable advantage over competitors. The company's omni channel and e-commerce approaches demonstrate the firm's dedication to reaching all potential consumers. RTC is founded on an improved distributor network that ensures customers are served effectively. Coughlan et al. (2001) argue that a marketing or distribution channel includes a set of interdependent organisations involved in availing products for use by end consumers. Distribution channels help firms to generate product demand, inventory transfer, product distribution, after-sale services, and to extend credit to smaller customers (Ingene, Brown & Dant, 2019).

Modern companies cannot ignore the importance of channel management. Increased globalisation and rapid growth of internet technologies in recent years have intensified competition among organisations, necessitating companies to expand the depth and breadth of their channels (Ingene, Brown & Dant, 2019). Furthermore, the viability of channel options has improved over time, as the internet and mobile phones facilitate communication and efficient execution.

An effective RTC for BPL means changing its selling processes so that it can sell its products faster to dispersed consumers via different channels. A fast and effective RTC is useful in restocking the trade to prevent stock-outs, which directly affects BPL's sales. Similarly, during new product launches, an effective RTC is critical in ensuring that products reach all the outlets simultaneously to increase initial interest and uptake. Synchronised product launches and

advertising campaigns can only work if RTC is reliable. Perhaps the most critical function of RTC is order fulfilment on an ongoing basis. BPL uses DMS to facilitate order management with distributors; System 1 for direct orders from retailers and Wowzi to connect directly with consumers. In a market where price comparison is rampant, and consumers demand value for money, consumers are able to see BPL's promotions and offers online and compare with competitor prices.

5.2.1.3 Effectiveness and Efficiency

'Effectiveness' denotes selecting activities correctly or doing the right things while 'efficiency' refers to performing activities as well as possible or getting things done correctly (Asmild et al., 2007). Existing literature has identified that a focus on the extent to which organisational sales targets are met is the most widely used measure of effectiveness (Redshaw, 2000). Based on the description by Bernard (1938), effectiveness relates to the accomplishment of recognised objectives achieved through collective efforts (cited in Oghojafor, Muo & Aduloju, 2012). Organisations' primary focus is to achieve their objectives and generate profits for shareholders. Past studies have consistently shown that organisational effectiveness and efficiency, as determined by performance outcomes or goal achievement, can be improved, when firms strengthen strategy implementation (Nienaber & Martins, 2020). In addition, scholars are increasingly attributing an increase in business efficiency to digitalisation (Kohtamaki ¨ et al., 2020).

The study indicates that BPL displays both effectiveness and efficiency in operations witnessed by the reduced number of reports. BPL continues to improve its effectiveness and efficiency through technologies to consolidate reports from various databases into one report. However,

Björkdahl (2020) warns that a narrow focus on driving efficiency could lead to delayed benefits from digitalisation. Instead, companies should use strategic choices in customer experience, analytics, data integration, and process automation to successfully roll out digitalisation programs. Effectiveness and efficiency enhance the speed at which tasks at BPL are accomplished. As a result, this capability allows for more to be done within a short period for competitive gains. The next section covers technology adoption, a DMC that was initially weak at BPL but improved as a result of this study through a change management initiative.

5.2.1.4 Technology Adoption

According to Granić (2022), technology adoption is the acceptance, integration and full use of new technologies by intended user groups. Some participants believed that the rate of technology adoption at BPL was slower than optimal. I, however, found that the views differed depending on the participant's role and seniority within the business. Senior-ranking people considered it slow, while those at lower levels thought it was at the expected rate. Participant views also differed on what should constitute a measure for technology adoption. Was it the organisation's financial gains or the actual use of the technologies? The issue is not unique to BPL as Ransbotham et al. (2017) note that slow adoption has been common with new technologies. Given the need to generate shareholder value, it is comprehensible why organisations may only look at the financial gains of technology adoption. At BPL, technology adoption has both financial and behavioural KPIs.

Digitalisation plays an integral role in boosting the sustainability of organisations. However, most industries grapple with severe challenges in utilising digitalisation for process innovation, despite the associated benefits (Chirumalla, 2021). Digitalisation's importance to

companies has been widely acknowledged. Firms, therefore, need to shift their focus on how to practically implement digitalisation so that they can reap the benefits (Parviainen et al., 2017). According to Björkdahl (2020), firms that have digitalised successfully exhibit decentralised procedures, flexible internal processes, and a commitment to learning from past mistakes. Cap Gemini and MIT (2011) identify several key steps that senior executives must take to make leaps in digitalisation efforts, including envisioning a digital future and leading change from the top.

Change management is a micro-foundation for reconfiguring capabilities that requires strategic training mechanisms. Implementing change involves education and training so that people move towards more diverse thinking. The notion that digitalisation is not a silver bullet necessitates that people come together to identify and exploit opportunities evident in the new working setup. Chirumalla (2021) argues that achieving this requires a change in attitudes and engaging in continuous developmental efforts that convince individuals in organisations to accept change. Therefore, leaders must highlight the benefits associated with digitalisation and what employees can expect from the new ways of working.

In summary, the study shows that the digitalisation efforts at BPL have generated two main benefits. The first benefit is the strengthening of DMCs (CRM and RTC), which enable the firm to perform its core duties of knowing and serving the market. The second benefit is the creation of more effective and efficient processes that make it possible for the firm to meet its goals.

Technology adoption, which was a weaker DMC at BPL, is discussed again in this chapter in section 5.3 under the heading 'actionable recommendations'.

5.2.2 Category: Market Orientation (Sensing DC)

MO is a strategic initiative that identifies consumer needs through market research. MO collects market intelligence, generates insights then disseminates the insights to the rest of the organisation to respond to market needs (Kohli and Jaworski, 1990). MO connects BPL to the broader business environment by providing information that enables the company to identify and respond to changes in the market through effective product development. Crucially MO relies on top management support for innovation and risk-taking (Jaworski and Kohli, 1993). The next section outlines two DMCs that emerged in the MO category at BPL—insight generation & consumer knowledge, and input into R&D and other investment decisions.

According to Teece (2007), there are three classes of DCs: sensing, seizing and transforming. Sensing is fundamentally the capacity of an entity to identify an opportunity. Teece (2007) asserts that complete optimisation of opportunities relies on past and current individual abilities and their capacities to recognise opportunities, and on the organisation's knowledge and learning capacities. Therefore, individuals and organisations have a crucial role in learning and knowledge acquisition in order to detect and exploit opportunities in the business environment. The following sections discuss the DMCs at BPL under the MO category.

5.2.2.1 Insight Generation and Customer Knowledge

Study findings show that BPL relies on insights generated from its data to respond to market needs. MO is the foundation for modern marketing. It assists firms in identifying and satisfying customer needs more efficiently and effectively than competitors (Sternquist, Huang & Chen, 2010). Market-sensing capabilities improve a firm's ability to observe market trends and

enables managers to access knowledge on how they can exploit the identified opportunities (Morgan, Slotegraaf & Vorhies, 2009). Firms with more sophisticated market-sensing capabilities identify customer segments yet to be exploited ahead of competition (Slater & Narver, 2000; Elsharnouby & Elbanna, 2021).

BPL collects vast amounts of data from the market, ranging from sales figures and market share to consumer trends. Both externally and internally generated data are processed for insights, which become the basis for decision-making. For example, insights generated inform product mixes, channel strategy, market segmentation, and product development. In addition, consumer knowledge and insights on market trends ensure that BPL responds faster and more accurately to market changes than its competitors, thereby maintaining its leadership position. For instance, while BPL's competitors may have CRM and other market sensing capabilities, BPL has advanced market sensing capabilities on account of its resources, evidenced by the vast amount of data they collect. The next section discusses how the insights generated are used as a basis to inform critical decisions at BPL.

5.2.2.2 Input into R&D and Investment Decisions

BPL's advanced market sensing capabilities link the 'sensing' and the 'seizing' capabilities espoused by Teece (2007). The outputs from MO (sensing capability) are the inputs into R&D and other organisational investments. Literature definitions of DCs by scholars such as Helfat & Winter (2011), Teece (2007), and Zahra, Sapienza & Davidsson (2006) have consistently highlighted that market knowledge is instrumental in enabling firms to respond to environmental changes. O'Reilly & Tushman (2008) echo that firms with the capacity to obtain more information about the state of the market have a higher chance of identifying and exploiting opportunities.

Market research is the source of knowledge at BPL that guides product development and other innovations. Information regarding the market is acquired through third parties or the organisation's salesforce, then analysed and interpreted for insights. These insights are then assimilated into other functions, such as NPD and strategy, and inform the types of investments and new products the company produces. However, Osterwalder & Pigneur (2010) note that some companies invest heavily in market research but neglect the customer perspective when designing products. At BPL, while a significant number of insights generated are used to inform crucial decisions on product development, not all insights are acted upon, which may be problematic for the organisation in the future.

5.2.2.3 Institutional Knowledge Management

Knowledge management involves harnessing the existing collective knowledge within an organisation and leveraging it to compete effectively (Von Krogh, 1998). The existing knowledge is also used to create new knowledge that positions firms favourably in their markets. To do this, firms must develop an absorptive capacity (Cohen and Levinthal, 1990).

BPL continues to develop its knowledge management capability through the collection, analysis and sharing of data across the organisation. The MO team is tasked with knowledge management and have embarked on creating a central data lake to store relevant information that can be used by all departments. While this capability is not considered as strong as the insight generation capability, the use of predictive analytics will hasten its development.

Below, is a discussion on the most critical capability for businesses in the era of advanced technologies.

5.2.2.4 Predictive Analytics

Predictive analytics falls under 'sensing' within Teece's (2007) DCs framework. All the participants at BPL identified predictive analytics as a DC that will be instrumental in the organisation's growth. The participants specifically stated that the organisation requires the kind of predictive analytics that would:

a) predict future consumption trends and consumer behaviour
b) predict outlet potential
c) predict innovation success.

Predictive analytics provides a way of analysing data to draw insights that predict future activity, behaviour, and trends. Data scientists develop a predictive model to give probability of an event occurring by examining historical and new statistical information (Sheposh, 2020). Predictive analytics involves data mining, machine learning, and artificial intelligence for insight generation. BPL stores multiple data in different databases. At the time of this study, the organisation was undergoing a project to clean and centralise all its data into one system. Once complete, data scientists will be able to apply predictive techniques and forecast future trends.

Despite the increasing popularity of predictive analytics as a strategic tool, some drawbacks are recognised. Deleren (2020) warns that the initial cost of the technology is prohibitive, analytics talent is lacking, and organisational culture could hinder the adoption of analytics. These drawbacks are known to many organisations and are the reason most companies have not optimised their analytics capability. However, BPL management recognise the importance of data and analytics for the organisation's future and are investing substantially in data collection and

analysis methods. As seen from the study of BPL, DMCs play a crucial role in enhancing firm competitiveness by enabling organisations to gather market intelligence and formulate responses that meet market needs. Insight generation at BPL is a robust capability that enables the organisation to achieve a market leadership position. There is however a need to invest in predictive capabilities. The predictive analytics capability for BPL is discussed in section 5.3.1. The next section discusses the DMCs under the NPD category as a seizing capability at BPL.

5.2.3 Category: New Product Development (Seizing DC)

According to Teece (2007), the next step after detecting an opportunity is transforming it through 'seizing'. It has been suggested that NPD is critical to a firm's competitive advantage, as well as for survival in competitive and dynamic environments (Tsai & Hsu, 2014). For BPL, taking advantage of opportunities implies the development of products, improvement of processes, or creation of a new business model, which requires utilising the corporate structures, routines, processes and human agency. There are two DMCs under NPD, highlighted below.

5.2.3.1 Innovation Culture

Evidence from the analysed findings reveal that BPL has an innovation culture regardless of the weaknesses identified in its innovation processes. According to Khan et al. (2020), firms face difficulties exploiting opportunities because of the highly volatile, uncertain, complex and competitive environments they encounter. BPL uses the Stage-Gate® model for NPD. The Stage-Gate® process is an accepted 'standard for managing product innovation', which includes six stages: (1) discover, (2) scoping, (3) defining the business case, (4) development, testing, (5) validation, and (6) launch (Stage-Gate® International, nd). The method is lauded for its ability to

predict risks associated with new products, thereby increasing their success rates post-launch (Stage-Gate® International, no date). Other advantages of using the Stage-Gate® model include top leadership involvement, cross-functional teams and faster launches (Stage-Gate® International, no date). Below is the Stage-Gate® process for product innovation in use at BPL.

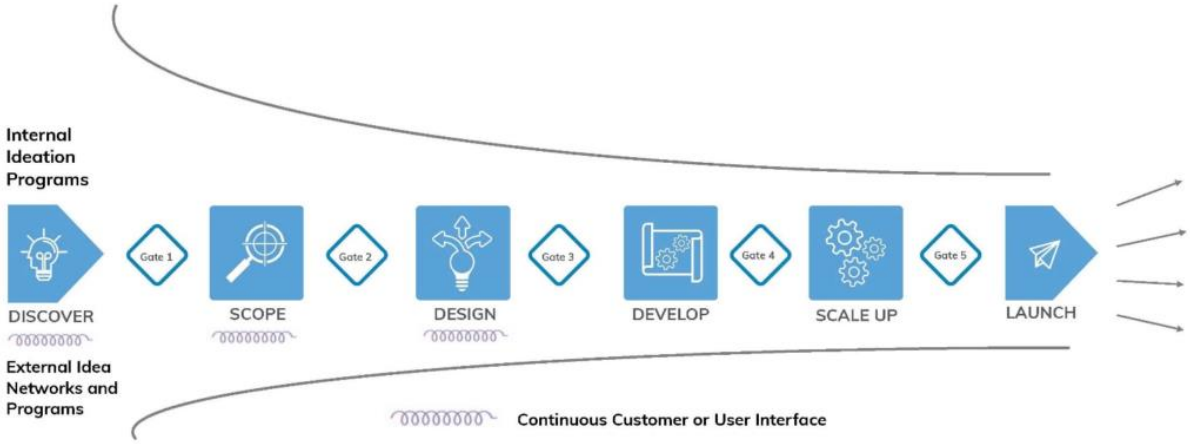

Figure 4: Stage-Gate® Innovation Model adapted from Stage-Gate International, (no date).

Empirical research indicates that formal product development processes such as the Stage-Gate® method improve NPD effectiveness and speed-to-market (Bianchi, Marzi & Guerini, 2020). The success of BPL's innovation is partly attributable to the use of the Stage-Gate® process, the leadership demonstrated by BPL's top management, support by the MNC's head office, and the collective technical expertise of the innovations team. BPL also allocates adequate resources towards NPD. The willingness to allocate resources and the teams' technical competence are two factors that put BPL's NPD ahead of its competition. According to Teece (2012), a firm's capabilities are built on the individual skills of the personnel and their collective learning. In the

contemporary business world, collaborative learning originates from employees work experiences and their use of available special equipment or facilities.

Industries worldwide are experiencing pressure in their NPD processes due to reducing lead times and product life cycles, made worse by the transition from mass production to mass customisation (Barclay, Dann & Holroyd, 2000). The implication for BPL is the need to establish a faster NPD process because consumer tastes could change quickly, resulting in losses from obsolete products. Other challenges facing organisations worldwide include reducing batch sizes and repeat orders due to increased product varieties occasioned by niche market penetration (Barclay, Dann & Holroyd, 2000). This is already evident at BPL, which has more than 200 SKUs in its product portfolio to cater for the different niche consumer groups. Despite the notable explosion of new products, Barclay, Dann & Holroyd (2000) note that only ten per cent of all new products launched contribute to corporate profits significantly. However, this number is higher at BPL at thirty per cent innovation success rate.

5.2.3.2 Speed and Clarity of the NPD process

The study findings identify the need for technology to increase the speed of NPD and provide clarity of the innovation process at BPL. It has become critical for firms to consider new ways to develop products efficiently in a business environment characterised by uncertainty and intense competition. Competition intensity increases production costs as each firm strives to be the best-in-class, fearing competitor brands will quickly replace its products. Chen et al. (2015), and Truong et al. (2017) note that establishing and maintaining a competitive advantage requires firms to respond to market needs through product offerings that differentiate them from competitors quickly and innovatively. The NPD speed defines competitive advantage which is time-based,

while NPD innovativeness refers to product uniqueness (Fang, 2008; Eiteneyer, Bendig & Brettel, 2019; Wu, Liu & Su, 2020). Firms should focus on both speed and innovativeness, because together, they determine the success of new products (Sheng, Zhou & Lessassy, 2013).

The issue of speed and clarity of the NPD process at BPL provoked mixed reactions. Some participants argued that the pace was satisfactory, while others felt it needed improving. Similar to technology adoption, those who deemed the speed as satisfactory were senior managers who had more information regarding how the organisation makes investment decisions on NPD. They also understood how being part of a global MNC affects NPD decisions. However, given the importance accorded to NPD as a means for competitive advantage, the concerns raised need to be addressed. For that reason, the speed and clarity of the NPD process is discussed in more detail in the following section, which also offers solutions for improvement for all the weak DMCs at BPL.

5.3 Actionable Recommendations

This section discusses the specific DMCs at BPL identified through this study as needing an enhancement or renewal, as noted in section 5.2 above. Teece (2007) notes that the development of DCs is triggered by several organisational variables, such as technological, reputational and financial assets. Literature shows that each firm can create DCs through the exploitation of distinctive combinations of variables (Barrales-Molina, Martínez-López & Gázquez-Abad, 2014). Thus, firms require something that exceeds just the capability to expand, create, or adjust their resource base (Helfat et al., 2007). According to Loureiro, Ferreira & Simoes (2021), knowledge, learning and technology dimensions must come together for firms to develop and measure DCs. To find out if digitalisation develops DMCs, the strong DMCs at BP were evaluated. The study

found that five of the seven-strong DMCs had significantly improved since the introduction of digitalisation, as explained below.

In terms of CRM, introducing new platforms to engage directly with the trade and consumers increased revenue by USD 30 million in one and a half years. Furthermore, with the digitalisation of RTC using the tools introduced under EDGE, the number of outlets visited by BPL's sales staff increased from fifty to seventy-five per cent of the total outlet universe over a three-year period. Additionally, the contribution of e-commerce as a channel to total revenue increased by two per cent. Efficiency was measured in different ways. One of the ways was to measure Advertising and Promotion (A&P) budget efficiency, which improved by five per cent since the introduction of the marketing catalyst tool.

The above metrics indicate that digitalisation was enhancing the DMCs at BPL thereby contributing to financial growth. DMS had increased the touch points with the company's distributors, System 1 with traders and wowzi with consumers. The increased interaction led to greater market knowledge, resulting in market segmentation that saw target segments increase from six to twenty-eight. Thus, smaller groups of consumers are able to get targeted products and services. Furthermore, the additional data collected through the digital platforms continues to enhance the innovation capability of BPL since new insights and new market segments create the need for new products.

Despite the progress made at BPL through digitalisation, three capabilities needed further development. The first one, technology adoption, was resolved through a change management intervention. Employees were given incentives to increase the adoption and usage of the new

technologies in their respective work areas, thereby doubling the usage rate. In future, any new technologies will need to be accompanied by a change management plan.

To develop the other two DMCs, namely predictive analytics and speed and clarity of the NPD process, adjusting the way of working at BPL, as described in sections 5.3.1 and 5.3.2 below, was proposed as part of the actionable recommendations.

5.3.1 Predictive Analytics

While most participants at BPL asked for predictive analytics as a growth driver, it emerged that the organisation was already using predictive analytics and that what was needed was instead *prescriptive* analytics. The discovery came from discussions with a participant tasked with developing prescriptive analytics for BPL. The discovery illustrates how information in large organisations does not flow effectively. It also indicates that knowledge management (Davenport, DeLong & Beers, 1998) should be part of the overall capability development.

Business analytics involves using new technologies to extract value from large volumes of data for organisations, enabling them to make quicker, better, and more intelligent decisions (Lepenioti et al., 2020). According to participants, BPL has four types of data analytics: descriptive, diagnostic, predictive and prescriptive. The organisation uses descriptive analytics as a means of understanding history. For example, a sales report indicating the sales numbers for different product categories is descriptive. Diagnostic analytics is a review of history, with an explanation, and involves reports on performance drivers. The sales report with additional details on why the sales numbers grew or declined in specific categories is diagnostic; for example: 'sales of beer brands grew by twenty per cent as a result of three promotions between April and June,

across the country'. From analysing historical data, predictive analytics is an indication of what is expected to happen in the future. Lastly, prescriptive analytics uses the data from predictive analysis to highlight what should be done about the predictions. Business analytics involves machine learning (ML), data mining, artificial intelligence (AI) and simulation (Lepenioti et al., 2020). For BPL to attain prescriptive analytics, several actions are required.

a) Centralise and clean the data
b) Mine the data for insights
c) Use technology to get both predictive and prescriptive analytics.

Data is defined by volume, velocity, variety, veracity and value (Mikalef et al., 2018). BPL has numerous sources and amounts of data; however, the data is stored in several databases, and according to one participant, the data is not clean as evidenced by duplicate data in some of the systems (P10). When counted there were eight different systems (not technologies) at BPL (DMS, EDGE, System 1, TRAX, SAP, Catalyst, Data Orbis and the Hub). While there was a need for different systems to cater for different business processes, some of the systems could be consolidated into one. For example, DMS, TRAX, SAP, retail audit tracker and data Orbis could be consolidated into a central data lake. That way, data would be easy to mine.

Many software companies offer predictive and prescriptive analytics solutions. For example, Tableau, provides services ranging from data cleaning and management to analytics. Tableau's software is also compatible with many existing technologies, including AWS (Amazon Web Services), Google, IBM, SAP, Excel and Microsoft Azure, making integration with BPL's existing software and platforms more practical. I, therefore, recommend that BPL use Tableau or similar software for prescriptive analytics. After centralising the data, the Tableau software cleans

data for organisations, according to a statement on their website (tableau.com, nd). For BPL, that would be a first step before specifying the types of insights required from its data. Typically, organisations in the consumer goods industry like BPL require insights regarding future trends, consumer behaviour and retail outlook.

5.3.2 Agility to Speed up the NPD process

NPD literature suggests that a fundamental reason for failure; is inappropriate approaches to managing the processes that govern the development of new products (Bianchi, Marzi & Guerini, 2020). BPL has established itself as an innovative enterprise, part of which is accomplished through the tried and tested Stage-Gate® process for NPD. The Stage-Gate® model is acclaimed as a successful model for NPD (Cooper, 1993). Therefore, to speed up BPL's NPD process, I propose, using the Agile–Stage-Gate® Hybrid Model (Cooper & Sommer, 2016). The model suggests adding Agile (Beck et al., 2001) to Stage-Gate® (Cooper, Edgett & Kleinschmidt, 2002). A key driver for adopting Agile would be that BPL's market is evolving, volatile and unpredictable (Lee & Xia, 2010). There is an argument that the Stage-Gate® and Agile methods are incompatible. The scepticism emanates from the fact that the Stage-Gate® model prescribes front-end rigour and sequential stages with strictly defined process specifications, while Agile uses different tools and techniques to maximise feedback and change, allowing for an evolving, dynamic process (Lee & Xia, 2010). There is, however, empirical evidence as to their compatibility and complementarity, even for beer manufacturing (Cooper & Sommer, 2016).

In addition to the Agile–Stage-Gate® Hybrid Model (Cooper & Sommer, 2016), I suggest altering the Stage-Gate® process to an 'Accelerated' Stage-Gate version (Cooper, 2014). The accelerated model has the benefit of shortening the NPD time frame through overlapping stages

and running concurrent activities by getting as much information at the fuzzy front end and automating activities (Cooper, 2014).

My recommendations imply that the NPD process at BPL should have the following elements:

1. Predictive and prescriptive analytics using Tableau for insights
2. Having an 'Accelerated' Agile–Stage-Gate® Hybrid Model for product development
3. TestCollab for faster product testing during development.

Through the AI software Tableau, the NPD team get accurate insights regarding consumer needs and predict market reactions to new products. Getting information at the front end makes the NPD process's ideation and business case stages clearer and faster to execute. The overlapping stages and concurrent activities also shorten the time frame for an NPD process. Agile makes it possible to quickly make changes during production, while simultaneously testing using TestCollab meets the regulatory and industry requirements. Using predictive analytics, allows BPL to get metrics such as what percentage of their A&P translates into sales. The organisation can also predict consumer and retail trends based on current consumption habits and macroeconomic factors.

BPL is part of a multinational that sources systems centrally for use by all subsidiaries globally. For that reason, the recommendations above need approval by BPL's parent company. This study establishes that digitalisation develops DCs. For that reason, the above recommendations have been passed on to BPL's team locally for discussions with the global team.

Besides the recommendations, the study has valuable insights for academia and other consumer goods organisations, which are discussed in the following section.

5.4 Implications for Practice

5.4.1 DC Development Requires Leadership Support

Developing DCs requires top leadership involvement to orchestrate assets, including redesigning routines (Teece, 2012). The leadership referred to in this context consists of the Board, the CEO and the Executive managers reporting to the CEO or the Board who have a strategic responsibility to run an organisation (Pitelis & Wagner, 2019). Schoemaker, Heaton & Teece (2018) emphasise the significance of the participation of senior management in creating (and supporting) dynamic capabilities in a company. In line with this, Nonaka, Hirose & Takeda (2016) state that the responsibility of senior management is to provide the required resources to develop the organisation's dynamic capabilities. The emerging question is how these skills and capabilities evolve. A firm's leadership develop its capabilities through well-organised teams (Meira, Machado & Gomes, 2019). The CEO's role is crucial to this process (Salleh and Grunewald, 2013).

According to Ambrosini, Bowman & Collier (2009), how top leadership perceive environmental dynamism defines their response. Lopez-Cabrales, Bornay-Barrachina & Diaz-Fernandez (2017) note that top leadership perspectives influence how they act regarding the renewal of their company's resource base. In other words, leadership philosophies serve as crucial catalysts for the development of dynamic capabilities, and it can be argued that senior leadership communication and leadership styles affect the rules and procedures they put in place to build the capabilities they seek. Different leadership styles may be suited to different DCs for example,

transformational leadership favours sensing and seizing, while transactional leadership is suited to reconfiguration capabilities (Lopez-Cabrales, Bornay-Barrachina & Diaz-Fernandez, 2017). However, shared leadership operates at all three types of DCs, namely sensing, seizing and reconfiguration (Pitelis & Wagner, 2019).

From the findings, it is apparent that the top leadership at BPL support the various initiatives within the sales and marketing departments, for instance, by providing resources for both MO and NPD. In addition, the leaders are also keen on insights derived from the environment, as evidenced by the collection of data from the market the company undertakes. Finally, leaders from the top leadership at BPL can be in charge of different initiatives according to their leadership styles.

5.4.2 DCs are Collective, Learned and Recurrent

Zollo & Winter (2002, p. 340) define DCs as 'learned and stable pattern of collective activity through which the organisation systematically generates and modifies its operating routines in pursuit of improved effectiveness'. Zollo & Winter (2002) further argue that processes are the primary drivers of DCs, emphasising learning processes. As a result, they devise three learning mechanisms to aid in the development and growth of DCs: accumulation of experiences, knowledge articulation and knowledge codification. According to the authors, accumulating experiences is the main process of developing routines. Routines are behavioural patterns that respond to internal or external organisational changes (Melo & Machado, 2020). Regarding knowledge articulation, Zollo & Winter (2002) concentrate on how knowledge is expressed through group deliberations, questioning sessions, and performance assessment procedures. The same authors also discuss knowledge codification, stating that when creating or changing routines,

an organisation should develop a manual that ensures a seamless replication and subsequent use of the routines.

Capabilities develop slowly, over time, incrementally, in a deterministic path-dependent way (Schreyögg & Kliesch-Eberl, 2007). Once developed, capabilities are entrenched in organisations through routines, and as a result, a firm's capabilities are a combination of its past resource allocation decisions and its capacity to recall and accurately recreate processes (Coraiola, Suddaby & Foster, 2017). Furthermore, DCs have to be built as they require managerial cognition and learning (Adner & Helfat, 2003; Teece, 2007) and are ingrained in the culture and history of businesses. For that reason, firms with great DCs also typically have distinctive, exclusive 'signature processes' (Gratton & Ghoshal, 2005). Competitors find it difficult to copy these signature processes due to their path dependency and often tacit nature. Nevertheless, signature processes can serve as a base for advantage over rivals, so long as management does not permit their historical advantages to stagnate and become inadequately suited when environmental changes occur (Teece, 2022).

DCs at BPL are learned and recurrent and are a collective effort. During data collection and working closely with the participants, it became apparent that the functions are interconnected, and the teams depend on each other to complete specific tasks. For example, the market research department conducts surveys that provide input data for decision-making by the NPD team and management for broader organisational investment decisions. Therefore, organisations should foster collaboration and teamwork since capability development usually involves many actors.

5.4.3 DC development Should be Strategic, not Tactical

DCs are built using internal processes and managerial capability (Teece, 2013). Therefore, firms should have a strategic orientation to guide the acquisition and allocation of resources to develop such capabilities (Zhou & Li, 2010). Developing DCs strategically involves making strategic choices to bring long-term trajectories of competence development (Teece, Pisano & Shuen, 1997). Strategic decisions engender the development of DCs by transferring capabilities residing in individuals or teams to create new capabilities that are subsequently embedded within the organisation (Pitelis & Wagner, 2019). Strategic vision improves organisational cognition and enhances the jointly generated DCs to offer change reliably through sensing, seizing, and reconfiguring. DCs must also be developed strategically to address ambidexterity or the need to marry change with stability (Pitelis & Wagner, 2019; Hess, 2020).

Sensing is the first dynamic capability element that signifies the ability of the corporation to scan the environment for new business prospects quickly. To do this, businesses should regularly assess how environmental dynamism affects consumers' needs and analyse their product portfolio to align with customer demands (Pavlou & El Sawy, 2011). Firms must be as adept at identifying opportunities as their rivals to remain competitive. Sensing activities lead to strategic decisions concerning which market segments to serve, price points, the competition, structuring alliances and developing talent (Schoemaker, Heaton & Teece, 2018). Moving on to seizing, strategy literature highlights the importance of building unique, applicable, and successful business models as a means by which firms can seize opportunities and realise value. Reconfiguring entails anticipating, being ready for, and taking the necessary steps to align an organisation's resource base for future sensing and seizing of opportunities (Teece, 2007). This calls for strategic foresight and flexible frameworks (Pitelis and Wagner, 2019).

Existing literature shows that most managers are aware of the DCs concept, but the majority still need to develop a broad perception of how to execute it (Xu et al., 2018). This study's findings could motivate managers to explore DMCs for their organisations. For example, at BPL, the findings, highlighting various emergent DMCs, led the participants to realise the organisational strengths and weaknesses in developing DMCs. The realisation emanated from the difference they experienced working with technology in MO, which was viewed as fast and efficient, versus in NPD, which was slow.

5.4.4 Digitalisation can be Introduced Gradually in Isolated Work Streams

Every aspect of an organisation's operations, procedures, and artefacts is now impacted by digital technology, which is pervasive and cross-functional (Bharadwaj et al., 2013; Volberda et al., 2021). Digitalisation is an unstoppable trend that enterprises cannot ignore, affecting structures, procedures, methods, and even the corporate culture. Digitalisation is characterised as a disruptive change (Hagberg & Jonsson, 2022), and if its implementation is unchecked, adverse effects could occur (Yu et al., 2021). The changes brought about by technological advancement necessitate organisations to adapt quickly. Hence, digitalisation requires a strategic approach to ensure the firm's survival (Lipsmeier et al., 2020). New, untested technologies can disrupt routines and slow adaptation by employees. This is why Kohtamäki et al. (2020) propose that organisational capabilities match and support digitalisation levels.

Therefore, digitalisation should be piloted in smaller business areas and isolated workstreams to avoid the disruption of all processes at once (Vogelsang et al., 2019). With such a division of workstreams, processes can be decentralised to help with a better understanding of issues and viable technology solutions (Björkdahl, 2020). The division of labour also increases

human understanding of the process, which fosters creativity and technological advancement (Eurofound, 2018). However, many organisations struggle with how and where to start digitalisation. BPL demonstrates that you can begin by leveraging existing systems and routines in isolated workstreams. Integrating new technologies with existing systems must be done carefully to ensure system compatibility. This approach also allows for ambidexterity, which is problematic for most organisations (Hess, 2020).

5.4.5 Digitalisation is an Emergent, Continuous and Evolving Process

As a strategic project, digitalisation cannot be executed within a predetermined timeframe. This is because digitalisation is a dynamic, continuous process (Lipsmeier et al., 2020) involving a gradual process whereby digital infrastructure evolves into more complicated forms (Osmundsen & Bygstad, 2022). Digital infrastructures are recursive and flexible, making them evolve over time (Henfridsson and Bygstad, 2013). Moreover, because the boundaries of digital infrastructures are not predetermined, their growth and evolution are continuous, emergent and unpredictable without a clear beginning or end (Hagberg & Jonsson, 2022; Osmundsen & Bygstad, 2022), becoming a source of learning and further development (Rodríguez et al., 2017).

An important aspect of digitalisation is integration with the business model and institutionalisation (Hagberg & Jonsson, 2022). Business model innovation is increasingly becoming the strategic route to commercialise new technologies (Mezger, 2014), although hampered by path dependencies (Warner and Wäger, 2019). Importantly, business model innovation requires learning new processes and unlearning old pre-digital processes (Randhawa, Wilden & Gudergan, 2020). Companies must recognise that transforming digital operations is a continuously evolving process that requires preparedness and continuous adjustments (Chirumalla,

2021). This requirement for continuous improvement implies that companies will constantly be on the lookout to remain abreast of the digital changes in the business environment and respond to them. Despite this, Connor (2015) argues that companies cannot succeed by simply bolting technology on the old product and customer engagement models. Bolting will only decelerate business processes and give companies a false sense of security. Thus, firms must redesign businesses, products, organisational strategies, and customer engagement.

The digitalisation endeavours at BPL have been continuous and evolving. For example, having many technologies and platforms has revealed the need for data centralisation. Furthermore, as more functions adopt the digitalisation of processes, the discovery of necessary adjustments will emerge.

5.4.6 Digitalisation Should be Accompanied by Change Management

Organisational change brought on by digitalisation may focus solely on the technological aspects and completely neglect or even ignore how the changes affect people (Pacolli, 2022). Enhancing operational efficiency for businesses through digitalisation is crucial. However, employees must be totally committed to the company's vision for the business transformation to be effective (Florek-Paszkowska, Ujwary-Gil & Godlewska-Dzioboń, 2021). Furthermore, change management in today's business environment demands a higher level of active leadership, rapidly paced evolutions, employee participation, and the inculcation of new behaviour. Change efforts should incorporate the aforementioned four imperatives so that firms can improve their adaptiveness, capacity for change and overall competence (Mingardon et al., 2018).

According to Tilson, Lyytinen & Sørensen (2010), digitalisation is a socio-technical change in which both technical and human aspects affect how successfully digital technologies are adopted and used. While the technology itself is a significant aspect (Yoo, Henfridsson & Lyytinen, 2010), employee competencies, skills, and mentality are key factors in digitalisation's success or failure (Zimmer, Baiyere & Salmela, 2023). Therefore, individual aptitudes and dispositions play a key role in determining technology adoption and success thereafter (Ritala et al., 2021). Successful digitalisation entails shifting the entire organisation to a digitally savvy culture by involving employees as key stakeholders and drivers of the change (Pacolli, 2022). Nonetheless, Toytari et al. (2017) note that it is challenging to alter people's attitudes and convictions. Digitalisation is socially ingrained and facilitated by socio-technical relationships (Tilson, Lyytinen & Sørensen, 2010); its growth is dependent on numerous actors interacting to provide value (Constantinides, Henfridsson and Parker, 2018) and their shared comprehension of one another's difficulties (Bygstad and Øvrelid, 2020).

The slow rate of technology adoption at BPL illustrates the often ignored but crucial aspect of change management whenever a new initiative like digitalisation is introduced in organisations. If change management had been done at the onset, it would have ensured a smooth integration of new systems with existing ones and accelerated technology adoption to reap the benefits of technology sooner.

5.4.7 Marketers Remain at the Centre of Insight Generation

Despite the plethora of cutting-edge digital tools, social media platforms and apps that improve the quality of life and make it more enjoyable and productive, some fundamental marketing facts still hold true (Pradeep, Appel & Sthanunathan, 2019). Marketing still revolves

around effective communication with consumers, persuading, inspiring, and, ideally, keeping them returning for more. Some of the problems marketers face today are the same problems they have always had, such as how to use a marketing budget effectively. Other problems are new, such as how to interact with customers in a highly fragmented media landscape that is changing rapidly. The difficulties are exacerbated by the fact that marketers must select the technology best suited to their companies from a wide range of options (Pradeep, Appel & Sthanunathan, 2019).

Humans have exceptional cognitive capabilities. Based on this, people make difficult choices and resolve challenging issues. As a result, experience is the most significant source of learning. Human brains build their cognitive abilities through contextual learning, which includes knowledge acquisition, relevance discovery based on prior experience, and the development of overall worldviews. In addition, humans are unusual in that they can comprehend abstract ideas like morality, society, and love and are also very sociable and intuitive (Kotler, Kartajaya & Setiawan, 2021). Machine replication of these human talents is the preoccupation of scientists. For instance, Artificial Intelligence (AI) seeks to emulate contextual learning. As a result, the next generation of marketers might gain from future technology, which includes AI, natural language processing (NLP), sensor technology, robotics, mixed reality, Internet of Things (IoT), and blockchain (Kotler, Kartajaya & Setiawan, 2021).

Despite the advocacy for increased digitalisation and the use of technology for insight generation, marketers must continue to use their intuition to sense-check the analytics developed by machines. The human brain might be slow in processing large volumes of data, but machines have yet to learn to be intuitive (Kotler, Kartajaya & Setiawan, 2021).

5.5 Summary

This chapter began by discussing the emergent DMCs evident at BPL as a result of this study. The ten DMCs are discussed under their main categories of digitalisation, MO as a sensing capability and NPD as a seizing capability. Extant literature is used to provide the context for interpretations made. Additionally, the DMCs identified through this study as needing an enhancement or renewal are discussed under actionable recommendations. First, prescriptive analytics is proposed as the future source of insights regarding future trends, consumer behaviour and retail outlook for BPL. To speed up the NPD process and provide faster product testing, changes are suggested to the process and introduce an accelerated Agile Stage Gate® method. Finally, insights for practitioners are discussed.

Implications for practice which arise from the data in this study, my experience and interpretations, and reinforced by extant literature, offer managers insights into DC development and digitalisation that can be applied in organisational settings. The next chapter is the conclusion to this study and shows how the research addresses its objectives and presents reflections on my experiences and learnings as a scholarly practitioner throughout the research journey.

6 CHAPTER SIX: CONCLUSION AND REFLECTION

6.1 Introduction

The previous chapter establishes the success of digitalisation at BPL as evidenced by the strong DMCs and offers solutions to improve the weak DMCs. This concluding chapter will summarise how effectively the research addresses its objectives. The chapter outlines the benefits of digitalisation in response to digital disruption, the role of DMCs in firm competitiveness and response to market dynamism, the use of digitalisation to develop DMCs, and the enablers of digitalisation. The chapter also presents my reflection, the study's limitations and recommendations for further research. To conclude is an overall summary of the entire thesis.

The study aimed to develop DMCs in MO and NPD through digitalisation. Three objectives were set out.

I. To identify the benefits of digitalisation in response to digital disruption

II. To identify the role of DMCs towards firm competitiveness and response to market dynamism

III. To develop DMCs through digitalisation to effectively respond to market dynamism

BPL had embarked on a digitalisation journey within the sales and marketing functions a few years before this study. Therefore, when this research began, it was not clear that the organisation would have strengthened their DMCs through digitalisation.

6.2 Benefits of Digitalisation in Response to Digital Disruption

It is evident from the study that digitalisation developed DMCs at BPL. Technology transformed the seemingly ordinary capabilities at BPL, making them more dynamic and able to create, extend or modify (Winter, 2003) their underlying microfoundations and processes. The new technologies improved the effectiveness and efficiency of processes and enhanced the MO capability through a faster collection of vast amounts of data used to generate insights. Providing timely market information enables BPL to recognise changes in the business environment and respond to those changes through effective adaptation and configuration of resources. For example, using the data collected in the various systems listed above, BPL increased its market segments from six to twenty-eight to ensure that each segment was effectively served and that marketing campaigns were targeted to the correct consumer group.

Digitalisation at BPL also enhanced CRM and RTC as two crucial DMCs. Digital technologies have the potential to improve customer service and increase operational efficiency, but for that to happen, businesses must connect technology with the underlying organisational skills (Carcary, Doherty & Cornway, 2016). The study reveals that BPL uses technology to improve the ordering experience. An improved customer experience has the potential to increase sales. While technology adoption had an initial slow uptake, the change management intervention doubled the usage and adoption within a short period. In addition, while NPD is still a slow process at BPL, insight generation and consumer understanding were enhanced through faster collection, analysis and interpretation of market data.

6.3 Role of DMCs in Firm Competitiveness and Response to Market Dynamism

The study data indicates that DMCs offer BPL a competitive advantage and enable fast and effective response to market dynamism through insight generation and NPD. Existing research consistently demonstrates that organisations can increase their competitiveness, as measured by performance or goal achievement, by strengthening strategy implementation (Nienaber, 2019). An effective response to a dynamic market requires firms to understand the unique needs of each market segment (Teece, 2007). Findings from the study reveal that digitalisation enabled market segmentation, which ensured that all customer segments were served. Companies with sophisticated market sensing capabilities identify untapped market segments before rivals (Slater & Narver, 2000). However, effectively serving each market segment requires the use of accurate and real-time data. The study shows that continuous monitoring provides opportunities for BPL to perceive market changes and adapt quickly.

BPL continues to enhance its market sensing and seizing capabilities through the development of CRM, RTC, effectiveness and efficiency, insight generation, and input into R&D. As detailed in section 5.3, the development of DMCs at BPL significantly improved its performance. These capabilities were dynamic because they modified processes, product or customer base and quickly adapted to changing market circumstances (Helfat et al., 2007). For example, during the COVID-19 pandemic, BPL utilised its CRM and RTC to change its product distribution model to direct online sales, thereby changing its customer base from traders to end consumers.

6.4 Using Digitalisation to Develop DMCs and Respond to Market Dynamism

Technology is a crucial tool firms use to develop or renew marketing capabilities. Teece (2017) noted that businesses must identify, develop, or update key resources and capabilities that enable the gathering of market data and provide the flexibility to quickly respond to environmental changes in order to remain competitive. Adopting industry 4.0 and digitalisation technology has long been considered the best strategy for giving businesses new chances and advantages (Chirumalla, 2021).

Findings from the study establish that technology-based RTC at BPL ensures rapid delivery of products to customers. CRM is also identified as one of the strong DMCs. The company uses digital platforms to reach its wide consumer base. The interactions between consumers and the organisation provide opportunities to get data and use it to create a deeper understanding of the consumers. Morgan (2012) applauds technology's role in activating insight generation. The insights derived from such direct interactions with consumers greatly influence BPL's strategic decisions. Insight generation is critical in providing relevant market data for NPD. The study further reveals that digitalisation facilitates the R&D process. Consistent with the assertion by Teece (2007), the study demonstrates that BPL's research function relies on technology to speed up insight generation for investment decisions.

BPL understands the importance of digitalisation in the development of DMCs. In particular, using AI and predictive analytics to get more information at the NPD's front end would improve NPD speed. The tactic shortens the time frame needed from ideation to commercialisation. Response to market dynamism is hinged on a firms' ability to sense and seize

market opportunities (Teece, 2007). Using technology to develop DMCs allows BPL to seize market opportunities with new products.

6.5 Enablers of Digitalisation

Digitalisation endeavours in a firm must be supported by underlying enablers such as data (Cao, Duan & El Banna, 2019), technology (Pavlou & El Sawy, 2011), leadership (Larjovuori, Bordi & Heikkila-Tammi, 2018), organisational processes (Zott & Amit, 2010), and managerial skills (Carcary, Doherty & Conway, 2016).

Data has been lauded as one of the critical components for successful digitalisation (Klingenberg, Borges & Antunes (2021). BPL has various sources of data, both internal and external. For example, DMS and System 1 provided data on the rate of sale to distributors and direct consumers, while TRAX tracks market share. In addition, third-party research, known as retail audit and brand audit, provides information regarding the performance of BPL brands in the market and consumer perceptions. However, the organisation recognises that while it has many data sources, it needs to ensure the data is reliable for insight generation and decision-making.

The study findings also reveal that digitalisation is dependent on new technologies. New technologies have previously been recognised as enablers of DCs through studies by Warner & Wäger (2019), Klingenberg, Borges & Antunes (2021), and Oztemel & Gursev (2020). AI remains an enabler for most tools used by BPL; for example, DMS uses AI to improve sales order processing.

BPL management provide leadership coupled with strategic vision and a suitable culture, which are enablers of digitalisation for the firm (Larjovuori, Bordi & Heikkilä-Tammi, 2018). In addition, the participants recognise the role played by the leaders in providing resources for various initiatives crucial to digitalisation (Cao, Duan & El Banna, 2019). Furthermore, the organisational processes at BPL are fundamental in ensuring that new technologies have a basis for their application. As a result, underlying processes in both MO and NPD enhance the digitalisation of the DMCs.

6.6 Reflections

6.6.1 On Becoming a Researcher

I am a firm believer that theory should guide practice, and therefore agree with Lewin's (1943, p. 118) statement that 'there is nothing as practical as a good theory'. This study was largely informed by theory, in particular the area of study, the research questions and subsequent methodology. This study is conceptualised under the DC theory as a lens to understanding organisational competitiveness. The importance of using theory is apparent in the discussion chapter where the findings were interpreted through a theoretical lens and confirmed practically. This discovery was the greatest learning as a researcher since I did not have prior experience applying theory to practice in a research setting.

A great sense of achievement during this study was finding out that the data led to the emergence of DMCs at BPL. I had been extremely apprehensive about what the data would reveal (or not). Data from the AR cycles revealed ten themes. As a novice researcher, it was satisfying to interpret that the emergent themes were, in a genuine sense, also the DMCs. The doctoral

knowledge I have gained aided my interpretation of the outcomes to identify the DMCs, confirmed during member checking with participants.

Experiencing AR with its appreciation of action and collaboration was also new to me. I found the AR cycles of planning, acting, observing and reflection (O'Leary, 2021) appropriate for continuous organisational change such as digitalisation. For BPL, this means planning for and introducing new technologies like the 'Accelerated' Agile–Stage-Gate® Hybrid Model, observing its effectiveness in speeding up NPD processes, and adjusting until the desired results are achieved. Face-to-face interviews were new to me, but using tools like the research protocol ensured that I followed the same routine. It was also fulfilling listening to participants narrate their work experiences. I had not used member checking prior to this study, and I found it incredibly reliable to check participant views on findings. Carrying out a qualitative study differed from my previous experiences since all my studies had been quantitative. I appreciate the richness of data from a qualitative study and acknowledge the need to approach the interviews with an open mind and to listen keenly. What made it an enriching experience was the human factor and the heightened awareness of values-laden research.

As a hybrid researcher – formally working with BPL but now an outsider, I was aware that I brought values into the research as a result of my previous work experiences at BPL. I wrote my preconceptions in a notebook which I referred to severally after data interpretation checking for biases. For example, I also acknowledge that I had biases regarding processes at BPL, but they were minimised during the interviews. I realised that my biases were based on old information which was no longer application. I watched out for both participant and researcher biases (Adams, 2015). I was particularly aware of participant bias which I avoided by asking the same question differently or probing further. I found probing useful since the participants had to give reasons

behind a view which would open up the discussion to reveal the truth. Additionally, using extant literature to guide the interview questions meant I had to pose questions that would give me data relevant to the study and not my personal preferences.

Despite the usefulness of AR, I encountered challenges as a hybrid action researcher. In the beginning, I needed access to people and crucial information, which I overcame through persistence and honesty concerning the nature of research and its usefulness to BPL. However, I found researching and implementing solutions with people more complex because, besides the research itself, I had to consider politics and power dynamics. I was aware that there was competition among the teams. The Mo team for instance indicated that their insights were not optimally utilised while the NPD team opined the NPD processes were not slow. As the researcher, I was aware of these different positions and had to maintain the objectivity of the research by considering broader perspectives of all participants. My position as a former employee of the company brought about power dynamics which I minimised by sticking to the research aim and avoided reference to my own experiences at BPL. Finally, I noticed that being in a study was strenuous for the participants, indicating that employees may find it difficult to undertake research in their organisations while concurrently working.

6.6.2 On Becoming a Practitioner

Whether or not the scholar-practitioner gap can be bridged has been a continuous debate (Aram & Salipante Jr., 2003; Belizón, Martín-Alcázar & Sánchez-Gardey, 2018). AR can be a powerful tool in solving this challenge by applying theory to solve organisational problems. I observed that using AR can benefit organisations that want to experiment with solutions or want incremental change over time. Introducing different technologies at BPL was a form of

experimentation, and whereas the adoption was initially slow, the technology proved helpful in developing DCs. Additionally, starting digitalisation with the sales and marketing departments only ensured that any challenges identified could be dealt with quickly and in a controlled environment before rolling out to the entire organisation.

Before embarking on the doctoral journey, I had not perceived the possibility of becoming a scholar-practitioner, nor was I aware of an overlap between academia and management. The thesis journey, particularly the collaboration with participants, introduced me to the possibility of engaging with theory and applying it to the organisational challenge of developing DCs. The DC concept is in its infancy within practice, and highlighting its usefulness in sustaining organisational competitiveness to the participants was another highlight of this study for me. I led the participants to appreciate that BPL was an extraordinarily successful organisation partly due to the unique capabilities that they (the employees) had developed over time. We also collectively explored the role digitalisation played in enhancing the capabilities further. This was the first time I felt like I was becoming a scholar-practitioner. I combined my experience as a manager who had worked at BPL with the academic grounding of DCs and digitalisation to explain to the participants why their organisation differed from others in the industry.

The most challenging part of this study was finding the solutions to develop the weaker DMCs. Because BPL is part of a global organisation with a central sourcing system for technologies, we could not purchase technologies locally and any recommendation needed to be approved by the global team. Being part of a large global organisation benefits BPL, but at the same time, it has been the reason for the slower speed of NPD because of the lengthy approval processes. This double-edged sword is one that multinationals must contend with but still find a middle-ground that could speed up processes without compromising product quality.

In doing and writing this research, I used Perry & Zuber-Skerritt's (1992) diagram that denotes the relationship between thesis research, core AR and thesis writing as shown in Figure 5. The illustration aided my appreciation that there were moments to work alone and moments to work collaboratively with the participants.

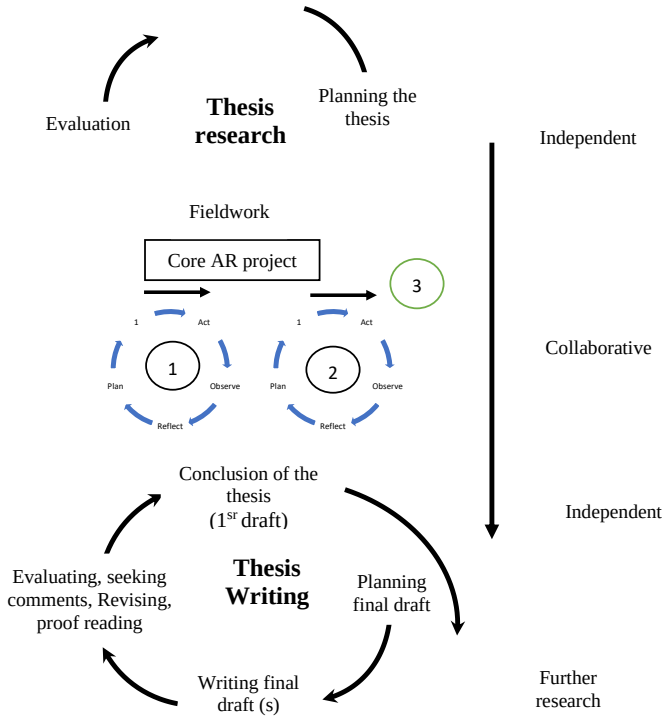

Figure 5: The Relationship Between Thesis Research, Core Action Research and Thesis Writing.

Adapted from: Perry and Zuber-Skerritt (1992, p. 204).

As a novice researcher, there are many aspects of a thesis that I had taken for granted, only to realise they were more complex than I thought. The diagram above helped me draw up the project timelines to give each phase sufficient time. The diagram also allowed me to articulate my overall thesis project, including the AR part. These learnings will be helpful in future research projects.

6.7 Limitations of the Study

The main limitation of this study was participant availability. The study engaged participants from BPL in in-depth qualitative semi-structured interviews over AR cycles until data was saturated. During the data collection process, some participants were difficult to access owing to tight schedules typical of BPL's sales and marketing departments. As a result, there were some delays, as I had to make all possible efforts to align the timing of the interviews to the participants' convenience. There was also the fear of disclosing too much information. The participants feared disclosing too much regarding the organisation's DMCs and digitalisation efforts could lead to disclosing the company's core strengths to outsiders. However, I clarified that I would anonymise the data so that the company would not be identifiable through the information provided in the final thesis. I also assured the participants that anonymity and confidentiality would be applied so that their identities would not be disclosed to outsiders or identifiable with the data.

I mentioned earlier in the thesis that I was a hybrid researcher—previously an employee in the marketing department, now an outsider. The difference between an 'insider' and an 'outsider' action researcher is that the insider must often overcome preunderstanding, role duality and manage organisational politics (Coghlan 2019), while the outsider has limited access to participants and information (Brannick & Coghlan, 2007). Some participants were hesitant to

answer the interview questions at the beginning of the study but later warmed up after reading through all the questions and realising that none required the revelation of confidential information. Lack of access posed a threat that critical issues would remain unknown to me as I was not a member of the organisation (Schon, 2004). I used my preunderstanding of the organisation to probe more during the planning stage and subsequent interviews to overcome this threat. As an outsider, I was able to be neutral and non-political, especially in data analysis and reporting of findings (Coghlan, 2019).

6.8 Further Research

A concept that came up in this study that I did not cover as it was outside the scope of this study is brand building as a key DMC at BPL. From a strategic standpoint, strong brands are identified as a source of competitive advantage. Brodie, Glynn & Little (2006, p. 373) conceptualise a brand as,

> *'...brands facilitate and mediate the marketing processes used to realize the experiences that drive co-creation of value. They provide sign systems that symbolize meanings in the marketing network. They are a fundamental asset or resource that a marketing organization uses in developing service-based competency and hence competitive advantage'.*

Brand building was not reported in the findings as a DMC because the focus of this study was MO and NPD, but brand building is one of the key strengths and differentiators of BPL in the market. Future research should explore ways in which brand building can be achieved through digitalisation.

Future research should also look into the knowledge-based theory of the firm in comparison to the DC concept. The knowledge-based theory states that increasing external turbulence turns organisational resources and capabilities into the source of competitive advantage (Peteraf, 1993).

6.9 Conclusion

BPL, a leader in the alcoholic beverages market, faces organisational challenges in an increasingly dynamic environment. The first chapter of this study presents the organisational context of BPL, highlighting that BPL is facing the threat of a proliferation of new technologies and, simultaneously, a volatile and dynamic market environment. Digitalisation and the development of DCs are identified as opportunities to keep pace with market changes and intensifying competition. Additionally, the necessity for research to establish more empirically grounded information on digitalisation's role in developing DCs was established. Finally, the study's aim, which is to develop DMCs through digitalisation, was identified, and the objectives for accomplishing this were set.

Through a literature review revolving around the objectives, chapter 2 establishes that technology is instrumental to the success of organisations such as BPL. The firm has adopted some new technologies but stands to benefit from integrating even more advanced technologies with its processes. A qualitative methodology through an Action Research strategy was identified as most appropriate, as explained in chapter 3. A qualitative methodology allowed for an in-depth exploration of the technologies and processes at BPL that can develop DMCs. Data was therefore collected using semi-structured interviews, and thematic analysis was employed to identify DMCs within BPL's MO and NPD. Chapter 4 starts by explaining the need for a reconnaissance followed by the AR cycles through which the existing DMCs at BPL emerged. O'Leary's (2021) stages of

observing, reflecting, planning and acting are espoused, detailing my steps in this research. Seven strong DMCs and three weaker ones that need further development emerged. An intervention to improve technology adoption was implemented, which doubled the adoption and usage rate. Recommendations were made to introduce prescriptive analytics and improve the speed and clarity of the NPD process.

The results are interpreted in chapter 5 to answer the research aim and objectives, confirming the success of digitalisation at BPL, as evidenced through enhanced CRM, RTC and effectiveness and efficiency of routines. The results reveal that DMCs offer BPL a competitive advantage, enabling a fast and effective response to market dynamism. As confirmed in this closing chapter, the study has effectively addressed the study objectives and demonstrated the prime role of digitalisation in developing DMCs to help BPL respond to environmental dynamism and maintain a sustainable competitive advantage.

Additionally, in this last chapter, I have explained how the study has made me a better scholarly practitioner. I can use theoretical concepts in my work as a marketer; for example, the DC theory, to identify which capabilities offer the organisation a competitive edge and how to develop them. Applying the underutilised DC concept and combining it with the practice of digitalisation means I can offer practitioners new theories to understand organisations and explore ways to become more competitive. I have also learned to collaboratively research with others to solve managerial problems, such as the rationale for digitalisation and the development of DCs. I employed qualitative methodologies within Action Research which was new to me and I have therefore gained additional research skills. I particularly found member checking to be a crucial tool for establishing the correctness of interpretation during analysis.

Furthermore, researching to solve a real organisational problem has been a gratifying experience. The actionable recommendations, section 5.3, highlight the practical changes BPL can implement to develop the weaker capabilities using technology. The implication for practice section 5.4 sets out the knowledge generated from this study. Overall, the study was a rewarding experience, and I particularly thank the participants and BPL for giving me the opportunity to work with them to solve their organisational challenges. I believe that is the beginning of solving such problems alongside practitioners.

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APPENDICES

Appendix 1

Interview protocol

The purpose of this protocol is to ensure that the same set of guidelines and interview process are followed for each online interview. Online interviews have been necessitated by the ongoing COVID19 pandemic.

Date:

Time:

Interviewer:

Interviewee:

Position held:

Protocol:

1. Introductions
2. Check that the interviewee has read and understood the information sheet. Answer any questions that may arise
3. Get the signed consent form
4. Assign the interviewee a pseudo name
5. Begin the interview, first defining any technical terms, followed by the questions
6. Ask if the interviewee has any questions
7. Thank the participant

Appendix 2

Interview Questions

Questions	**Rationale**
Part 1: General	
Details of your present role	Warm up questions to make the interviewee comfortable. These questions also establishes that the interviewee is knowledgeable
Part 2: Digitalisation (Research Objective 1)	
Digitalisation is the use of digital technologies to change an organisation's business model and find new revenue opportunities.	Defining a technical term
1. Steps the organisation has taken towards digitalisation.	To establish the level of digitalisation
2. Digitalisation tools available in your specific area of work.	Specific technologies at use at BPL. New digital technologies such as the Internet of Things (IoT), Big Data Analytics (BDA), are disrupting businesses (Liu et al., 2020), but they also enhance the capability of firms to attend to threats and opportunities in the commercial environment.
3. Digital tools missing but crucial to the overall business goals for which you are responsible.	To identify missing technologies and how they could improve the dynamic capability processes and speed up market response.
4. Which new technologies have you identified that would make your work easier (either data collection for	

market orientation or new product development process)?	
5. In what ways can technology and digitalisation add value to the marketing function.	
Part 3: Dynamic Capabilities (Research objective 2)	
Dynamic capabilities are what the firm uses to change its resource base and business model in response to environmental changes.	Defining a technical term
6. Dynamic capabilities you identify within your specific work area.	To establish what the interviewee deems as dynamic capabilities.
7. Ways that dynamic capabilities improve firm performance.	To find out the link between dynamic capabilities and organisational performance (if any) There is evidence that firms with similar resources perform differently, attributable only to the difference in their DCs (Lin & Wu, 2014).
8. Ways that dynamic capabilities improve your work.	To establish what the interviewee deems as most important capabilities in their organisation
9. Ways that dynamic capabilities improve your organisation's competitiveness.	To find out if there are crucial capabilities missing
10. Of the capabilities above, any that you consider more important than others and for what reasons.	To establish capability performance MO is a dynamic marketing capability because of its rare, valuable, and inimitable nature and its use of market knowledge for insights (Day, 2011;

	Barrales-Molina, Martínez-López & Gázquez-Abad, 2014).
11. Dynamic capabilities that are not present in your organisation that you feel would improve your work?	To establish what the competition might be doing
12. Of the existing dynamic capabilities – are there any that have stopped working or that need renewal?	To establish capability gaps
This study focuses on two main dynamic capabilities within the marketing function: Market Orientation and New Product Development.	
Part 4: Market orientation (Sensing capability)	
Market orientation is a firm's philosophy on how to serve customers and a key strategy for gathering market knowledge.	Defining a technical term
13. Strength behind your organisation's market data.	To establish what has worked for the organisation previously in relation to market orientation, what could be improved and the various ways data is used within the organisation. MO is 'the generation of marketing intelligence and the dissemination of its intelligence across departments, and organisation-wide responsiveness to it' (Kohli & Jaworski, 1990, p. 6).
14. How does the organisation collect market data relating to customers and competition?	To establish existing ways of market research Furthermore, MO can be reactive or proactive (Randhawa, Wilden & Gudergan, 2020).
15 Various ways your organisation uses the market data it collects.	

17. What technologies are available for data collection?	To understand how technology is used for market orientation and how that can improve. Roach et al. (2018) opine that MO becomes a DC after interacting with an enabler capability such as marketing analytics.
18. Are the technologies mentioned in 5 above sufficient?	
19. Improvements you would like to see in collection, storage, analysis and use for market data/research.	
Part 5: New product development (Seizing capability)	
20. The ways through which the organisation puts new offerings into the market.	
21. Success factors behind your organisation's new product development?	To understand the success factors in new product development and the use of technology for faster launch. New technologies like rapid prototyping have the potential to shorten NPD lead times, a crucial aspect of maintaining a competitive advantage (Warner & Wäger, 2019).
Some successful new products include the new Vodka where the uptake was significantly higher than projected sales in the weeks after launch and the brand has been growing since.	
22. Challenges you face with the new product development process.	
23. Technologies currently in use for new product development.	New technologies like rapid prototyping have the potential to shorten NPD lead times, a

	crucial aspect of maintaining a competitive advantage (Warner & Wäger, 2019).
24. Any new technologies that other companies might be using?	To explore the opportunities for improvement in new product development.
25. What would improve the speed to market and success of new products in your organisation?	

Appendix 3

Document: **Participant Information Sheet**

Version No.	Significant Changes	Previous Version No	Date
1	N/A	N/A	25th September 2020
1.1	N/A	1	16th October 2020
1.2	Explained the anonymisation of data and explicitly stated that the researcher is an outsider.	1.1	1st December 2020
1.3	Changed the wording in the title	1.2	23rd November 2021

1. Title of Study

'**Developing Dynamic Marketing Capabilities through Digitalisation**'

2. Invitation Paragraph

You are being invited to participate in a research study. Before you decide whether to participate, it is important for you to understand why the research is being done and what it will involve. Please take time to read the following information carefully and feel free to ask me if you would like

more information or if there is anything that you do not understand. I would like to stress that participation is voluntary and all information you provide will be confidential and anonymised. Your personal information such as name and contact details will be omitted in the Thesis write up. I would also like to point out that I do not work for BPL and this research carries no conflict of interest with the organisation. Thank you for reading this.

3. What is the purpose of the study?

The purpose of this research is to find ways to transform marketing capabilities, in your organisation within research and innovations using new technologies. The capabilities will in turn help the organisation to cope with the changes in the market. This research will be a case study of your organisation, conducted within the daily operational setting of the business.

The study is necessitated by the rapidly changing business environment, brought about by the proliferation of disruptive technologies, changing consumer behaviour and new competitor threats. Consequently, the environment has become increasingly complex so that organisations like yours, are turning to digitalisation in the form of new technologies to sense and seize environmental changes faster**.** In essence, digitalisation will enable the renewal of the underlying capabilities.

Specifically, I intend to research how to renew or develop the necessary marketing capabilities namely: market research and new product development/innovation. The renewal of these capabilities will ensure that the organisation can compete effectively now, and in the future, because it will be in a position to respond to market changes faster.

The research objectives are:

1. To identify the benefits of digitalisation in response to digital disruption.

2. To identify the role of DMCs towards firm competitiveness and response to market dynamism
3. To develop DMCs through digitalisation to effectively respond to market dynamism

4.Why have you been chosen to take part?

Your work aligns with this study either working in research or innovations the two areas in marketing identified for capability renewal. In total, ten people have been identified for this study all of them in Marketing and the support functions.

5.Do I have to take part?

Your participation is voluntary and you can withdraw at any time, without any explanation. Also, because I am not a member of BPL, I cannot coerce you directly or indirectly to participate.

6.What will happen if I take part?

As a participant, your role will be to describe how the capabilities in your specific area of work have been developed or evolved over time. This information will be collected through interviews conducted by me, the researcher. There will be three interviews in total all relating to your area of responsibility but asking different questions depending on what is discovered at each stage of the interviews. Besides name, job title and contact details, no personal questions will be asked. The other questions will relate to how you interact with the marketing capabilities within your organisation and how you collaborate with other departments, customers and customers. There will also be a level of discussions surrounding your personal experiences with the capabilities aforementioned.

7.How will my data be used?

All the information you provide will be treated as confidential in accordance with the organisation's nondisclosure agreement that I have signed, Data Protection Act, 2019 of the laws of Kenya, and UK data protection legislation which in this case is General Data Protection Regulation (GDPR) and the UK Data Protection Act 2018 (DPA).

For purposes of this study, personal data is information that either on its own, or when combined with other information, can identify a living individual. This can include (but is not limited to) names, addresses, staff ID numbers, dates of birth, photographs, social media handles, video footage, emails and WhatsApp messages. Any personal data collected will not be included in the Thesis and the information you provide specifically relating to your work will be treated confidential under the nondisclosure agreement that I have signed. To further safeguard your anonymity as a participant, any information you give that needs to be reported in the Thesis will be aggregated with other participant comments so that it is unidentifiable with you. Additionally, pseudonyms will be used where specific quotes are used. Your contact information and all other data will be destroyed after five years by deleting all files from the computer and shredding any physical documents. Your limit to confidentiality is however limited in the event that your employer requires me to disclose noncompliance or other material breach discovered during the research.

The University of Liverpool processes personal data in accordance with the UK law and the University's purpose of advancing education. Under UK data protection legislation, the University is the Data Controller while the Supervisor is the Data Processor. Any issues emanating from this study can be sent to*:* John Byrom ***j.byrom@liverpool.ac.uk***

Further information on how your data will be used can be found in the table below".

How will my data be collected?	Through interviews. The interviews will be conducted either through private online meetings such as zoom calls or in person depending on the level of face-to-face meetings allowed by your organisation at the time of the interview.
How will my data be stored?	Electronically on a personal computer, password protected and accessible only by the researcher.
How long will my data be stored for?	Five years
What measures are in place to protect the security and confidentiality of my data?	Your data is protected under the UK data protection legislation (2018) as well as the data protection laws of Kenya (2019).
	Physically, all data you provide will be stored securely in the researcher's computer, and password protected.
	During the analysis stage, all data will be anonymised while confidential company information and your personal data will not be disclosed in the Thesis.
	Data that needs reporting in the Thesis will be aggregated with other participant data so that it is unidentifiable with you. Additionally, pseudonyms will be used where specific quotes are used.
Will my data be anonymised?	Yes. During the analysis stage, before writing and publishing the research findings, no personal data will be used and any company data you provide will be anonymised so that no one can identify you as the source.

	Data that needs reporting in the Thesis will be aggregated with other participant data so that it is unidentifiable with you. Additionally, pseudonyms will be used where specific quotes are used.
How will my data be used?	Only for purposes of this study, with the intention of writing a thesis and which will also be shared with BPL legal for approval before publication. Secondly, the Thesis will form part of the University of Liverpool's database of Theses.
Who will have access to my data?	The final research data will be available to your head of department, the research supervisor and me, the researcher.
	Because your information will be anonymised, it cannot identify you as a participant nor can any company information you give be identifiable with BPL.
Will my data be archived for use in other research projects in the future?	No. Once this study is completed, your data will not be used for other studies in the future.
How will my data be destroyed?	After the Thesis has been anonymised and made public by the University of Liverpool, all data you had provided will be permanently deleted from all computers and files and any physical documents will be shredded.

8. Expenses and / or payments

This research has no monetary payments

9. Are there any risks in taking part?

This research does not carry risks that are outside your normal working routines. All the interviews will be conducted either using remote data collection technologies like Zoom or in person meetings. The risks associated with revealing confidential information will be covered under employee confidentiality policy**,** the nondisclosure agreement I have signed with BPL and UK and Kenya data protection laws. Any personal data collected will not be used in the Thesis and the information you provide specifically relating to your work will be treated confidential under the nondisclosure agreement that I have signed. To further safeguard your anonymity as a participant, any information you give that needs to be reported in the Thesis will be aggregated with other participant comments so that it is unidentifiable with you. Additionally, pseudonyms will be used where specific quotes are used.

There is, however, the risk of time consumed in this study that takes you away from your work. To mitigate against lost time, I plan to have three meetings with you, each lasting one hour, spread over several months. I will plan the interviews in consultation with you to ensure you have adequate planning.

That said, you should not experience any disadvantage in your work as a result of your participation in this study. Should you experience any discomfort or disadvantage as part of the research please inform me immediately and you can also withdraw from the study at any point.

10.Are there any benefits in taking part?

This is an academic study the results of which have the potential to advance scholarship. While there is no expected direct benefit to you as a participant, the findings have the potential to provide the organisation avenues for improved performance within the specific areas under study.

11.What will happen to the results of the study?

The results of this study will be written in the Thesis, which will become part of the university's repository. Before submitting the Thesis, I will share with you the findings that relate to your specific work area so long as the organisation approves. I will also share the final Thesis with the organisation so that no sensitive or confidential information is contained therein before submitting to the university. The results will become public as part of the University of Liverpool's Thesis repository.

12.What will happen if I want to stop taking part?

You can withdraw at any time, without explanation. However, if you consent, information and results up to the point of withdrawal can still be used for the study. If you do not consent, results will be destroyed and no further use made of them. Results can however only be destroyed before anonymisation. After anonymisation, the results will be used in the study. Anonymisation will only happen after all interviews are concluded but before writing the Thesis.

In case you would like to withdraw from participating, please contact me (the researcher-Jemmimah Waititu) on jemimah.gakuya7@gmail.com; your departmental head or my Supervisor John Byrom on j.byrom@liverpool.ac.uk

13. What if I am unhappy or if there is a problem?

If you are unhappy, or if there is a problem, please feel free to let us know by contacting John Byrom on j.byrom@liverpool.ac.uk and he will try to help. If you remain unhappy or have a complaint which you feel you cannot come to him with, then you should contact the University of Liverpool's Research Participant Advocate on this email address liverpoolethics@ohecampus.com When contacting the Research Participant Advocate, please provide the following details:

The title of the study: '**Developing Dynamic Marketing Capabilities through Digitalisation**'.

The researcher: Jemmimah Waititu

Details of the complaint you wish to make.

The University strives to maintain the highest standards of rigour in the processing of your data. However, if you have any concerns about the way in which the University processes your personal data, it is important that you are aware of your right to lodge a complaint with the Information Commissioner's Office by calling +44 303 123 1113.

14. Who can I contact if I have further questions?

Should you have further questions, please contact -

Jemmimah Waititu on jemimah.gakuya7@gmail.com

John Byrom on j.byrom@liverpool.ac.uk

Appendix 4

UNIVERSITY OF LIVERPOOL

Document: **Participant consent form (**Version 3, 23rd November, 2021)

Title of the research project: '**Developing Dynamic Marketing Capabilities through Digitalisation**'

Name of researcher: Jemmimah WaitituPlease initial box

1. I confirm that I have read and have understood the information sheet dated **23/11/2021** for the above study. I have had the opportunity to consider the information, ask questions and have had these answered satisfactorily. ☐
2. I understand that taking part in the study involves an oral interview between me and the researcher, or audio and video recordings as part of a Zoom call. ☐
3. I understand that my participation is voluntary and that I am free to stop taking part and can withdraw from the study at any time without giving any reason and without my rights being affected. In addition, I understand that I am free to decline to answer any particular question or questions. ☐
4. I understand that I can ask for access to the information I provide and I can request the destruction of that information if I wish at any time prior to anonymisation. I understand that following anonymisation I will no longer be able to request access to or withdrawal of the information I provide. ☐
5. I understand that the information I provide will be held securely and in line with data protection requirements of the University of Liverpool until it is fully anonymised and then deposited in the archive for sharing and use by other authorised researchers to support other research in the future. ☐
6. I understand that signed consent forms and original interview questions will be retained by the researcher in electronic format until the Thesis is fully anonymised and archived by the University of Liverpool. ☐
7. I agree to take part in the above study. ☐

_____

Participant Name Date Signature

Jemmimah Waititu (Researcher)_____

Jemimah.gakuya7@gmail.com Date Signature

Appendix 5

Ethics Approval

Dear Jemmimah Waititu,

I am pleased to inform you that the DBA Ethics Committee has approved your application for ethical approval for your study. Details and conditions of the approval can be found below:

Committee Name: DBA Ethics Committee

Title of Study: Developing Dynamic Marketing Capabilities towards Digitalisation of a Firm

Student Investigator: Jemmimah Waititu

School/Institute: School of Management

Date: 4 November 2020

The application was APPROVED subject to the following conditions:

1. The researcher must obtain ethical approval from a local research ethics committee if this is an international study.

2. University of Liverpool approval is subject to compliance with all relevant national legislative requirements if this this is an international study.

3. All serious adverse events must be reported to the Sub-Committee within 24 hours of their occurrence, via the Research Integrity and Governance Officer (ethics@liv.ac.uk)

4. If it is proposed to make an amendment to the research, you should notify the Committee of the amendment.

This approval applies to the duration of the research. If it is proposed to extend the duration of the study as specified in the application form, the Committee should be notified.

Best Regards

Dr. Allan Macpherson

DBA Ethics Committee University of Liverpool On-line Programmes

Appendix 6

Codes\\Autocoded Themes: Dynamic Capabilities through Digitalisation

Name	Description	Files	References
Brand		17	42
beer brand		3	3
building brands		3	3
global brands		10	14
Digitalisation		20	229
change		15	22
change management		6	8
Technology skills		8	8
digital technologies adoption		10	10
institutional knowledge management		2	2
customer		15	28
customer relationship management		13	13
distributor network		16	25

Name	Description	Files	References
distributor management		3	3
distributors – network consumers		8	8
Management		17	36
potential technology		10	10
sales evaluation		18	38
sales people		4	6
sales reports measure		9	9
Efficiency		16	38
dedicated team		2	2
research team resources		4	4
technology adoption		4	4
using technology		9	9
Dynamic Capabilities		20	76
capabilities		20	43
crucial dynamic capability		10	13
Market Orientation		20	311

Name	Description	Files	References
consumer		18	69
consumer behaviour		12	12
consumer knowledge		10	10
data		15	44
big data		1	1
centralised data warehouse		1	1
data collection		8	11
insights		11	21
insight generation capability		2	2
predictive insights		1	1
knowledge		20	27
consumer knowledge		10	10
gathering market knowledge		10	10
institutional knowledge management		2	2

Name	Description	Files	References
market		20	97
gathering market knowledge		10	10
marketing function		10	10
orientation market orientation		10	20
New Product Development		17	57
innovation success		9	10
innovations team		3	4
speed		11	22
Improve speed		10	10
Speed to market		10	10
shorten innovation timelines		10	10

Themes Excerpt