Leveraging information and communication technologies (ICTs) for enhanced marketing performance: Key issues for marketers in Island-Nation's commercial banks

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Abstract

Unprecedented strides have been made in technological advancements within recent decades. The synergistic effect of information technologies with communications technologies -coined information and communications technologies (ICTs)- has been pervasive, inspiring much academic enquiry. In the field of marketing, research has burgeoned in its prominent nexuses with ICT, for example electronic commerce, digital marketing, and customer relationship management (CRM). Academics concentrated on adoption determinants and the impact of technologies on consumers, firms, and countries. However, few studies examined this phenomenon from the perspective of the marketer - the implementer within the firm. Further, despite signaling ICTs' centrality in marketing practice and its capacity to transform the discipline, scholars have also flagged possible reluctance to technology uptake by marketers. Accordingly, this research sought to contribute towards bridging the lacuna by exploring the scope of ICTs being used by marketers in practice, the impact on performance, and challenges encountered. The study also has an explanatory component seeking underlying reasons for technology adoption.

The investigation employed a qualitative multi-method research design with a critical realism underpinning, supported by online questionnaires and semi-structured interviews. It is one of few studies drawing upon a combination of traditional and relationship marketing theory, as opposed to technology adoption theory, to undertake research on ICT adoption and usage in marketing. The findings revealed a selection of customer-facing and non-customer-facing ICTs being used by marketers including analytical, monitoring, collaboration, and other ICT tools. Underlying reasons for adoption spanned environmental, technological, and organisational factors, including strategy. The study's main contribution to knowledge was highlighting the need to consider the impact of change when contemplating ICT adoption. A conceptual framework linking major themes in the literature was developed in this regard. Further, a framework for incorporating ICTs into marketing was also designed to assist marketers in their practice.

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Several persons contributed to the effort required to undertake this research and produce this doctoral thesis. Firstly, I must express my gratitude to Dr. Constantia Anastasiadou, my Director of Studies, and Dr. Janice McMillan, my Supervisor and Miami Units facilitator. I also acknowledge Professor Mary Fischer who provided supervision during my first year. I sincerely appreciated their patience, encouragement, responsiveness, and support during the DBA journey. They exemplified teamwork complementing each other, while steering me along the course of my academic and professional development with a light but steady hand. I am truly grateful and blessed to have had their professional and scholarly input into my development.

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I would like to thank my attorney Kevin, my IT guru Michael and all those who helped along the way. I thank them for responding without hesitation to my call in the hour of need. Their support was instrumental and greatly appreciated.

I must also acknowledge and express my gratitude to my mother, Grace, my father, Celestine, my sister, Abby-Gale, and my brother, Marc-Anthony. I thank them for standing by me every step of the way, once again, as I strived to achieve another milestone in my life.

As I persevered through my DBA journey, I am eternally grateful for the unswerving love, care, support and patience I received from my dear husband Greg.

"I can do all things though Christ who strengthens and empowers me."
Philippians 4:13

Declaration

I declare that this thesis is the result of my own independent work, that the contents are original and further, that no portion herein has been submitted as a requirement for another degree. Material from other academic sources used in the development of this document has been duly referenced affording credit to the respective author(s).

Signed by
Tracey Gail Savary-Torres

Date
September 29th, 2020

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List of Acronyms

B2B	business to business	**ERP**	enterprise resource planning
B2C	business to consumer	**FMCG**	fast moving consumer goods
B2G	business to government	**ICT**	information and communications technology
BI	business intelligence	**IM**	Interaction Marketing
C2C	consumer to consumer	**IMA**	innovation management application
CMP	contemporary marketing practice	**INPAS**	innovation / new products and services
CPD	continuing professional development	**IS**	information systems
CRM	customer relationship management	**IT**	information technology
DM	Database Marketing	**LAN**	local area network
DOI	Diffusion of Innovation	**MC**	marketing communications
E	electronic	**m-CRM**	mobile customer relationship management
e-B	electronic business	**NM**	Network Marketing
e-BB	electronic business / banking	**NSD**	new service development
e-BC	electronic business / commerce	**RM**	Relationship Marketing
e-C	electronic commerce	**SCM**	supply chain management
e-CRM	electronic customer relationship management	**SME**	small to medium enterprises
EDI	electronic data interchange	**SNS**	social networking sites
EFT	electronic funds transfer	**TAM**	Technology Acceptance Model
e-M	electronic marketing	**TM**	Traditional / Transactional Marketing
e-MC	electronic marketing communications	**TOE**	Technology Organisation Environment

Contents

Chapter 1: Introduction

1.1 The need for research into ICTs in marketing

A technological revolution of global proportion has been underway for the past few decades. It has permeated every facet of personal, social and business life making indelible changes. This transformation is fueled by the widespread diffusion of the synergy between information technologies (ITs) and communications technologies (CTs). Steady growth has been recorded in global ICT penetration during the period 2005 - 2019, with internet usage climbing from 17% to 54%, and mobile subscriptions increasing by 18% every year (International Telecommunication Union [ITU], 2019). Resulting from increased ICT usage, consumers have become much more knowledgeable, empowered by the wealth of information available through the internet. Whether accessed through cell phones, laptops, tablets or other devices, new communication and information channels such as social media, search engines and an increasing number of apps, are engaging consumers' attention. From an organisational standpoint, the advancements in ICT have implications for many functional areas including marketing, the topic at hand.

There is consensus in the literature that technologies are having a profound impact upon marketing, and that ICTs have become pivotal to marketing practice (Brady, Fellenz & Brookes, 2008; Chukwuemeka, Chukwuemeka & Nzewi, 2011). Indeed, scholars have flagged that among all business functions, marketing may be the most profoundly impacted by technologies (Kokt & Koelane, 2013). Marketing is a key function in any organisation and very often its scope is directly linked to revenue generation, profitability, market growth and expansion, all of which lie at the core of an organisation's viability and success. Moreover, positive linkages have been shown between technology usage and marketing performance (Setiowati, Hartoyo, Daryanto & Arifin, 2015). However, despite the prospect of enhanced performance, researchers have posited that marketers' response to the uptake of ICTs has been sluggish (Brady et al. 2008; Kokt & Koelane, 2013). This adverse response is concerning because of marketers' important role in the organisation. As such, marketers' reaction to ICT adoption has the potential to impact overall firm performance. The growing impact of ICT in marketing, compounded by evidence that marketers have been resistant to

incorporating technological developments into their field substantiates the case for further research into this topic.

ICT use in marketing has already stimulated academic attention. Moreover, research on the topic has been burgeoning during the four-year time span for developing this thesis. In a broad sense, researchers have tackled the topic by examining specific ICTs and ICT-enabled platforms and channels linked to marketing, for example e-commerce (Wresch & Fraser, 2006), and electronic marketing (Chukwuemeka et al., 2011). Outside of banking, studies spanned diverse industries including tourism (Law, Buhalis & Cobanoglu, 2014; Pestek & Cicic, 2010), agriculture (Lashgarara, Mohammadi & Najafabadi, 2011) and the fashion industry (Setiowati et al., 2015) to name a few. Importantly, studies have discerned a digital divide stemming from a disparity in the level of ICT penetration in developed versus developing countries. The latter lag behind in its adoption and therefore do not derive equivalent economic and social benefits (ITU, 2015; Simon, 2004). This concise overview demonstrates that the issue of ICT usage in marketing merits investigation and, academic enquiry into this topic is in its nascent stage. This research therefore responds to the call in the literature for more academic investigations into the use of technologies in contemporary marketing practice (Brady et al, 2008).

Against this backdrop, the purpose of this research is to contribute to the academic discussion on the impact of ICTs on marketing and moreover, how technological resources can be leveraged for enhanced performance. These issues are important to business for two reasons. Firstly, marketers are tasked with the functions of driving growth through the introduction of new products, straddling global markets, managing distribution channels, building brand equity and managing customer relations, all of which have been impacted by technological advancements (Belch & Belch, 2018; Crawford & Di Benedetto, 2015). The provision of insights into the ways in which ICT can be leveraged to improve marketing performance in these areas is therefore of significant benefit to marketing practitioners and to organisations.

Second, research also shows that advances in ICT such as the internet, web 2.0 and the advent of increasing mobile platforms is changing consumer behaviour, so much so that several authors argue that the balance of power is shifting from the organisation / marketer to the consumer (Pires, Stanton & Paulo, 2006). This change has implications

for the development of marketing strategy and marketers' ability to attain their objectives. Hence, ICT is transforming how marketing is being undertaken. It is therefore important to analyse this impact with a view to providing direction for leveraging ICT use in marketing. Since marketing has responsibility for the bottom line, incorporation of ICT into marketing would have an impact upon firms' marketing performance. That being so, given the digital divide, should organisations in developing countries not use ICTs in marketing to the standard and extent of their international competitors they would be at a serious disadvantage. Hence, by using Island-Nation -a developing country- as its context, this research strives to provide insights which may be beneficial to other developing nations.

1.2 Research question, aim and objectives

In light of the information discussed above, the study's overarching research question has been articulated as follows:

How do Island-Nation's commercial banks utilise information and communications technology (ICT) in their marketing practice?

Pursuant to that, the study's aim and objectives have been identified as follows:

Aim

To examine the scope and effectiveness of ICT deployment within marketing practice in Island-Nation's commercial banks, its impact on performance, and issues arising.

Objectives

i. To critically examine major themes in the literature addressing the incorporation of ICTs into the marketing field.
ii. To identify the forms of ICT utilised by marketers in commercial banks to carry out their functions, the extent of and underlying reasons for usage, as well as the perceived effectiveness.
iii. To determine challenges encountered by marketers in their efforts to adopt and optimise use of ICTs in their marketing performance.

iv. To create a framework for incorporating ICT into marketing, designed to assist marketers in carrying out their functions.

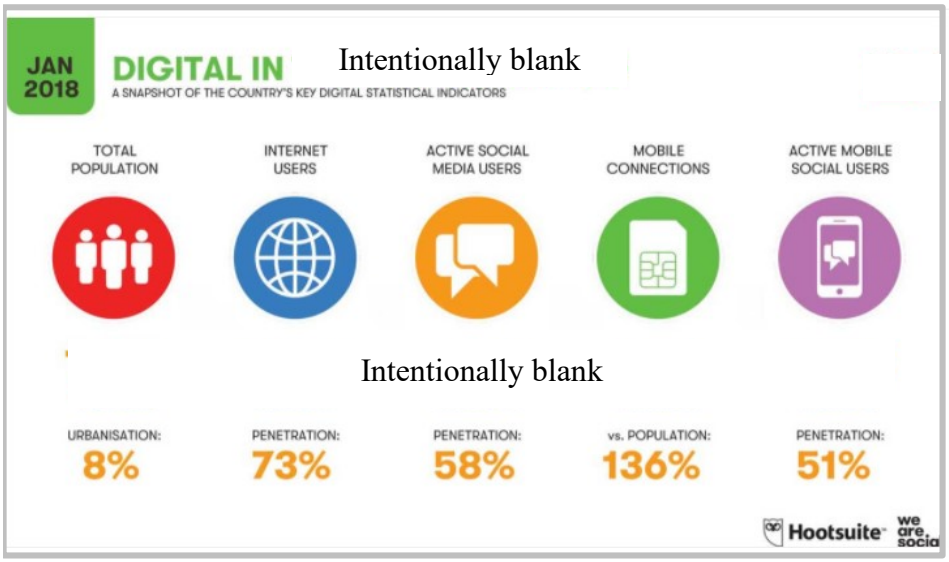
1.3 Approach to achieving the aim and objectives

To achieve the aim and objectives of this study, a critical realism philosophical stance was adopted. Ontologically, this philosophy asserts the existence of one reality, but acknowledges that individuals may have differing perspectives of it. With this philosophical underpinning, a qualitative multi-method approach was taken, comprising a questionnaire survey and semi-structured interviews. The purpose of the questionnaire was to facilitate the exploratory component of the study, examining the scope of ICTs being used in marketing practice and assessing their importance and effectiveness. The interviews were earmarked to gain insight into the underlying reasons for ICT usage, as well as any challenges or concerns marketers may have with leveraging technologies to enhance their performance.

1.4 The context of Island-Nation's commercial banks

This research study was undertaken within the context of Island-Nation, a country in the English-speaking Caribbean. The real name of the country has not been disclosed in order to preserve the anonymity of the participating banks. The country's population is less than 3 million (Central Statistical Office [CSO], 2019), and its endowment of natural resources has made it one of the more stable and prosperous economies in the English-speaking Caribbean. The country's 73% internet penetration exceeds the global rate of 53%, with mobile connections exceeding the population size by 36% (Figure 1.1).

Figure 1.1: Island-Nation - Digital Snapshot



Source: (We Are Social [WES], 2018)

The selection of a sector for this study was based on its relative importance to the Island-Nation economy, the evidence that sectoral firms were using ICT in their marketing efforts, and the ease of access to the researcher. Banking forms part of the Finance and Insurance economic sector which was estimated to have contributed 7.4% to GDP in 2019 (Ministry of Finance [MOF], 2019, p.137). Commercial banks represented 50% of the Finance, Insurance and Real Estate sector's assets, with Insurance recording a distant second at 16% (Bhagoo-Ramrattan, 2015). In the regional context it is noteworthy that Island-Nation is also considered a financial hub in the Caribbean (World Bank, 2016). Additionally, there was evidence that Island-Nation banks were using ICTs in their marketing in at least two ways: offering online services and advertising online. It was difficult to gauge the level of ICT usage in marketing in the other economic sectors such as manufacturing and tourism which were more dispersed. Moreover, banks were identified as a key sector for ICT uptake by academics (Carbo-Valverde, Cuadros-Solas & Rodríguez-Fernández, 2020).

1.5 Motivation for undertaking this research

This research topic is of personal interest to me. The core reasons for undertaking this study were twofold. Firstly, I sought to understand changes observed within my profession as a marketing practitioner with more than fifteen years of experience. These changes were acute for me, having spent three years working in Cuba - a country technologically disadvantaged due to the longstanding embargo with the United States.

While the Cuban stint was rewarding professionally and in many other ways, it occurred at a time when technological strides were being made across the world. Upon returning to Trinidad, I noted a stark difference in the requirements for the marketing manager portfolio. Heavy emphasis was being placed on digital marketing and social media use by firms. Further, given my experience in the manufacturing sector, and cognisant of the country's need for additional foreign exchange due to contracting energy resources, I deliberated upon e-commerce as a potential solution. From my preliminary observation, this novel channel was not sufficiently being exploited in the country. As such, I had already identified two ways in which ICTs were impacting upon the marketing function. Resulting from this observation, I hoped that focusing on this topic for my doctoral thesis would enable me to gain proficiency in ICT usage in marketing. It was also my expectation that the journey would help to bridge the personal gap I was experiencing as a manager schooled in traditional marketing, to transcend to a level of comfort leveraging marketing technologies. Therefore, the findings and recommendations would not only benefit marketers' practice overall, but also my personal practice and career advancement. It is against this backdrop that I was motivated to undertake doctoral research on the incorporation of ICT into the marketing field.

1.6 Overview of the remaining chapters

This thesis is organised in the following manner. A critical examination of extant literature on the topic of ICTs in marketing is presented in chapter two. Major themes arising from the review are discussed, spanning adoption and related areas, customer-centric areas, and performance, leading to the development of a conceptual framework. The exercise of scoping the literature served to expose knowledge gaps to which this thesis sought to contribute. The methodological approach used to undertake the research is presented in chapter three. Here, an overview of the underlying philosophy of critical realism is discussed, as well as its suitability for conducting this research, drilling down to the application of qualitative multi-methods.

Chapter four entails a presentation of the data analysis and the findings which emerged, complemented by a discussion of these relative to the literature and thesis objectives in chapter five. These chapters revealed the influence of relational and transactional marketing approaches on ICT adoption and usage by the case banks. Further, an array of customer-facing and non-customer-facing ICTs being used by marketers in commercial

banks was highlighted. These transcended e-commerce and social media platforms, to include customer relationship management, data analysis, project management and several other tools. Moreover, underlying reasons for adoption were addressed, including factors exogenous and endogenous to the firms, of which strategy and performance enhancement played a significant role. The relationship between adoption of ICTs, customer-centric areas, structure, and performance was also evident. The discussion was supplemented by insights into barriers and challenges faced by marketers in their efforts to adopt and use technologies. Stemming from the analysis and discussion, the thesis culminates with conclusions and recommendations in chapter six.

Chapter 2: Literature Review

This chapter undertakes a review of existent literature on the intersection of the two contemporary fields addressed in this research: marketing management and information and communications technology (ICT). It scrutinises the academic discussion on this nexus with a view to identifying major themes, debates, and gaps to inform the study's aim and objectives.

The chapter commences by outlining the search strategy employed to gather academic literature relevant to the topic at hand. It then overviews key concepts in the literature as a precursor to examining major themes. Major concepts spanned technical and subject matter terms providing context for the investigation of themes by researchers. They included: e-business / e-commerce; e-banking; e-marketing; innovation, and new products and services; services marketing and customer service; relationship marketing and customer relationship management; and lastly, information and communications technology (ICT). Following the conceptual overview, an examination of the research themes ensues, the majority of which revolved around adoption and usage of ICTs. Accordingly, adoption determinants were reviewed at the consumer, firm and country levels, together with its status quo and stages. Barriers and challenges to adoption, as well as adoption impact comprised additional themes. Further, ICT adoption and usage in marketing theory and practice afforded an overarching perspective. Beyond adoption, leveraging technologies for performance was another theme present in the literature.

Subsequent to these general themes, those prevalent in the areas of ICTs in financial services / banking, and marketing within the banking sector were also examined. Based on the thematic review, a critique and identification of gaps in the literature was undertaken. Further, a conceptual framework was developed showing inter-relation of the themes and linkage to the gaps. A summary is provided at the end of the chapter.

2.1 Search strategy and results

To conduct the literature review, searches of peer-reviewed, academic journals were undertaken from the ABI / INFORM Global (aka Proquest) and EBSCOhost databases - two leading resources for business and management articles. "Marketing management" was the anchor search query, after which results were refined by adding the fields of

"ICT" and "banking" consecutively. For thoroughness, alternative composites including "marketing functions", "marketing practice", "marketing performance", "information and communications technology" and "banking sector" were also explored. Search results exceeded 500 journal articles.

A series of steps was undertaken to filter the papers for relevance to the study at hand. First, after carefully screening the abstract, body and conclusion for material relevant to both marketing and ICT, the articles were recorded into an Excel grid. Papers pertaining more to other disciplines including operations management (supply chain management (SCM), procurement, outsourcing), human resources management or solely focused on information technology (IT) were sifted out, in addition to those in foreign languages, book listings and repetitions. Similarly, articles on government, though mentioned, were not the focal point of the study. These results were supplemented with limited articles from Google Scholar where necessary.

This review is not exhaustive, since research on "ICT in marketing" has been burgeoning, indicative of the rapid rate of technological advancements, its impact on the marketing field and growing interest by academics. Rather, this appraisal serves to scope the literature highlighting dominant lines of research and corresponding themes, debates and gaps. It was observed that the contents of the articles were often multi-disciplinary, straddling marketing-related disciplines such as strategic management and entrepreneurship, or marketing sub-disciplines / specialisation areas including international business, international marketing, new product management, and business to business (B2B) marketing. The time span of articles ranged from 1994 to 2019, capturing significant coverage of the topic while including the most recent articles.

2.2 Conceptual overview

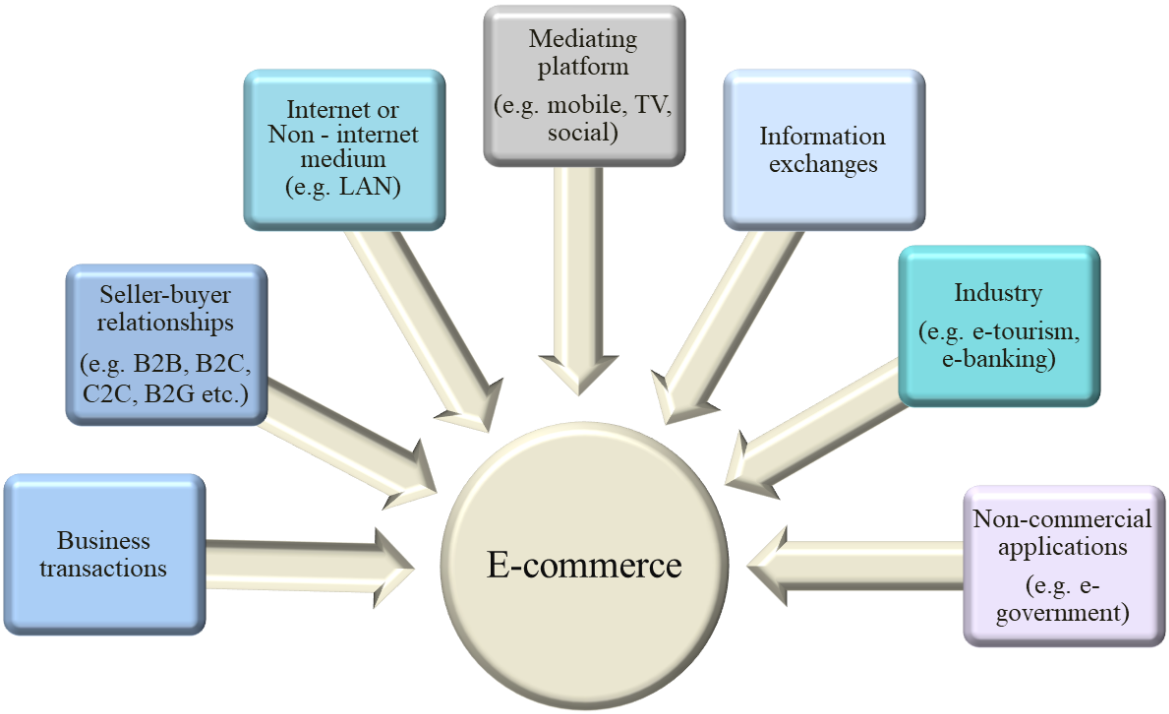
The review of the literature revealed several ICT platforms and marketing subject areas providing context for academic research. These included: e-business and e-commerce; e-marketing; innovation, new products and services; services marketing, services and customer service; as well as relationship marketing and its linkage to customer relationship management. These concepts are herein reviewed as a prelude to examining the major themes investigated by researchers.

2.2.1 E-business / e-commerce

E-business, and particularly e-commerce, was the dominant subject area in the literature. In academia, varying views were expressed on the meaning and scope of e-commerce. While e-business and e-commerce shared significant conceptual ground, some scholars articulated their distinctive points, asserting non-equivalence (Hinson & Sorensen, 2006). Citing international bodies such as the United Nations Conference on Trade and Development (UNTAD) and multiple works, the literature demonstrated consensus that e-commerce was premised upon business transactions (selling and buying products and services), over the internet medium, facilitated by related information exchanges (Awa, Nwibere & Inyang, 2010; Muhammad & Muhammad, 2013; Šapić, Furtula & Aleksić, 2017; Singh, Yadav & Sahu, 2016).

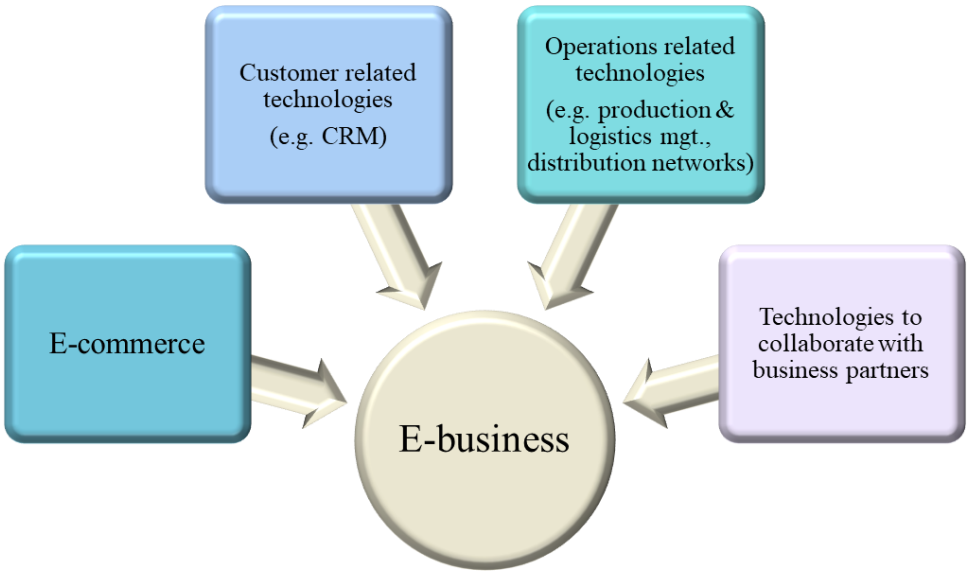
Beyond these basic elements, variations of e-commerce have emerged, for example non-commercial applications such as e-government (Singh et al., 2016). The use of private computer networks, for example, LAN (local area network) versus the internet was used to distinguish between non-internet and internet-based e-commerce (Simović, 2013, as cited in Šapić et al., 2017). Further, e-commerce categories spawned in the literature based on permutations of seller-buyer relationships between businesses, consumers and government (Muhammad & Muhammad, 2013; Singh et al., 2016), mediating platform, for example mobile (Barry & Jan, 2018), television (Arroyo-Cañada & Gil-Lafuente, 2016) or social (Beyari & Abareshi, 2016), and industry, for example e-tourism (Sharma, 2018) and e-insurance (Fakhri, Hajighafori & Jafarzadeh, 2014). Given the extensive scope of the e-commerce concept, a depiction of its components and variations is presented in Figure 2.1.

Figure 2.1: E-commerce components and variations



Alternatively, rather than confining e-commerce to transaction-related activities, a broader perspective incorporating all business processes was also adopted in research (see Thulani, Tofara & Langton, 2010). This broader view coincided with the scope of the e-business concept, transcending sales applications to incorporate technology usage in customer service and business partner collaboration (Rowley, 2001). E-business also included export-related elements such as customer relationship management, logistics management, production processes and distribution networks (Hinsen & Sorensen, 2006). Hence, some researchers used both terms interchangeably (Barnes, Hinton & Mieczkowska, 2005; Darwis, 2013; Wresh & Fraser, 2006), while others viewed e-commerce as a subset of e-business (Rowley, 2001). M-commerce and more recently, m-business, emerged as offshoots of e-business / e-commerce in which wireless telecommunications technology was utilised, for example, mobile phones and personal digital assistants (PDAs) (Barry & Jan, 2018; Heng-Sheng & Gururajan, 2007). Similarly, social commerce was identified as an extension of B2C e-commerce (Beyari & Abareshi, 2018). While the need for demarcation of e-business and e-commerce was unnecessary for the purpose of this study, in recognition of their distinction the umbrella acronym “e-BC” will be utilised in this research. The main components of e-business are presented in Figure 2.2.

Figure 2.2: E-business components



Two inferences were made from this conceptual review. First, the meaning of e-BC is contested by academics and second, the trend of increasing variations is likely to continue in the future. Notwithstanding these observations, researchers concurred on the benefits of this ICT-enabled channel of distribution. Market expansion, improved organisational efficiencies, cost reduction and enhanced communication were some of the touted benefits of e-commerce (Sanyala & Hisamb, 2019; Thulani et al., 2010). Given significant business and economic potential as well as repercussions, it was not surprising that research on e-commerce has been mushrooming.

2.2.2 E-banking

E-banking was recognised as one of the most successful applications of e-commerce (Arenas-Gaitán, Peral-Peral & Ramón-Jerónimo, 2015). It entails using various technologies to conduct banking transactions, including: telephone (fixed line and mobile); electronic funds transfer (EFT); personal computer and the internet (Machogu & Okiko, 2015). Conversely, academics also restricted e-banking to online banking transactions (Pearce & Robinson, 2009, as cited in Narteh, 2012). Broader definitions incorporated the use of electronic and communication networks (Singh & Malhotra, 2004, as cited in Narteh, 2012). Similar terms such as internet banking was taken to convey banking transactions undertaken via ATMs, mobile or tablet applications (Duc

et al., 2018), while m-banking incorporated the use of a mobile phone or device to perform account transactions (Bhardwaj & Aggarwal, 2016). It was also expressed that online banking was offered either through an electronic bank or an electronic branch of a traditional bank (Hua, 2009). For the purpose of this thesis, the broad meaning of e-banking will be utilised, making specific reference to the enabling technology where applicable, for example, internet banking, personal computer (PC) banking and mobile banking.

2.2.3 E-marketing

Like e-BC, e-marketing is another construct embracing both technology and marketing. Similar to e-BC, there was a lack of consensus on the meaning of e-marketing in the literature. One definition of e-marketing was traditional marketing using information technology (IT), with some changes (Strauss et al., 2006 as cited in Pestek & Cicic, 2010). Another perspective acknowledged the distinction that apart from digital media (web, email, wireless media), e-marketing also incorporated electronic capturing and tracking of customer data, for example, e-CRM (Cleofhas & Gibson, 2009, as cited in Kokt & Koelane, 2013). A third definition posited that e-marketing was essentially "IT-enabled interactivity" involving "using the Internet and other interactive technologies to create and mediate dialogue between the firm and identified customers" (Coviello, Milley & Marcolin, 2001, p. 26). Researchers also espoused that terms such as internet marketing, e-marketing, social media marketing and recently, digital marketing, should be used interchangeably (Shaltoni, 2017). This thesis subscribes to the last view wherein the terms are equivalent.

It was inferred from the literature that e-marketing, is inextricably linked to e-BC and further, that there is a mutual enhancement between these activities (see Adnan, Naeem, Inam, Shahzad & Hayat, 2018; Rowley, 2001; Darwis, 2013). A significant commonality contributing to this integration of the three activities appeared to be the leveraging of the internet and websites as the primary platform interface. Articles addressing e-marketing were scant. This could be attributed to the low incidence of e-marketing when the concept was first introduced, though it has been increasing over time (Brady et al., 2008).

2.2.4 Innovation, new products, and services

Innovation / new products and services (INPAS) was a contemporary, emergent research stream in the literature. The 2007-2018 timeline of most academic articles reviewed on this subject indicated its recency. Although innovation, and new products and services are related concepts, the latter represented just one typology of innovation among several, including process, technology, organisation, marketing and more recently, social innovation (Hsien-Tang & Hsi-Peng, 2010; Meissner, Polt & Vonortas, 2017; Pierre Mohnen, 2016). Given significant overlap in the meaning of the two concepts, some research equivalised them (see Hart, Tzokas & Saren, 1999). This thesis adopted a similar approach.

Papers on INPAS research reflected its multi-disciplinary nature, incorporating perspectives from research and development (Meissner et al., 2017), IT (Hung, 2012), sociology (Mannan & Haleem, 2017), and marketing. These diverse inputs had implications for collaboration and innovation management, some of which were raised in the literature. While INPAS was considered a strategic measure for survival, growth and gaining the competitive edge (Abbas, Muhammad, Ahmad & Ashraf, 2017; Plewa, Troshani, Francis & Rampersad, 2012), high costs, complexity and failure rates magnified the associated risks (Jiménez-Zarco, Torrent-Sellens & Martínez-Ruiz, 2012; Plewa et al., 2012).

2.2.5 Services marketing and customer service

Services represented another juncture in the literature where ICTs and marketing converged. Extant research posited several reasons for the increasing incorporation of technology into services. Firstly, since the services sector has been dominating many economies (Meyronin, 2004; Oliveira & Roth, 2012) and ICTs enable the provision of services, as well as the development of new ones (Häikiö & Koivumäki, 2016), the rising use of ICTs in services is therefore a natural evolution. Moreover, traditional product-oriented industries have been increasingly embracing the addition of value-added services for enhanced revenues and to gain a competitive edge (Oliveira & Roth, 2012). Thirdly, the growing use of ICT-mediated customer interfaces as opposed to face to face interaction has implications for several service-related issues including service

quality, customer satisfaction, customer loyalty, service encounters, customer experiences and service delivery systems. These themes surfaced in the literature.

2.2.6 Relationship marketing and customer relationship management

Relationship marketing (RM) and its linkage to customer relationship management (CRM) was a core area in the literature. More recently, emphasis on the CRM aspect of this dyad has been receiving the attention of researchers. The RM concept was coined by Berry, (1983) (Berry, 2002). However, notwithstanding the nuances of different interpretations, there was consensus in the literature that RM encompasses all the activities related to building and sustaining relationships, particularly with customers. More specifically, it was inferred that RM aims to attain long-term, strategic, profitable customer relationships (Maicas Lopez, Polo Redondo & Sese Olivan, 2006; Kahreh, Haghighi & Hesan, 2011; Salazar, Harrison & Ansell, 2007). The literature underscored that a prerequisite to achieving customer retention is the generation and analysis of customer and market data (Al-Weshah, 2017; Salazar et al., 2007). This type of information was considered a form of market intelligence so vital that it was regarded as a strategic asset (Hanssens, 2002). RM/CRM literature also viewed marketing intelligence as a key contributor to building CRM (Al-Weshah, 2017).

On the other hand, CRM was regarded as a multi-faceted concept in the literature. It has a strong technological component (Awasthi & Sangle, 2012; Baksi & Parida, 2012) enabling individual data-capture crucial to building long-term, one to one customer relationships, as espoused by RM (Maicas Lopez et al., 2006). Advanced forms of CRM via electronic and mobile platforms (Stone, 2009) emerged over time, for example CRM 2.0. Hence, the RM/CRM link was a clear demonstration of ICT usage facilitating a marketing purpose. However, CRM was also viewed as a philosophy, a strategy, and a marketing function with multi-disciplinary impacts. CRM is therefore a broad concept. To aid in understanding its scope, Table 2.1 presents a synopsis of the CRM concept, aggregating contributions made from academic works. Given the diverse and overlapping interests, it was evident that some degree of complexity is inherent to CRM.

Table 2.1: Synopsis of the CRM concept

Features	
Core feature	A strong technological component enabling individual data capture which is crucial to building long-term, one to one customer relationships, as espoused by relationship marketing (Abdul, Basri & Shaharuddin, 2013; Al-Weshah, 2017; Awasthi & Sangle, 2012; Raisinghani, Tan, Untama, Weiershaus & Verdeflor, 2005).
IT	CRM comprises front end systems (sales and marketing), data-handling systems (data warehousing and data mining), and back end systems (ERP, SCM etcetera) (Boon, Corbitt & Parker, 2002).
Dimensions	CRM dimensions include customer orientation, CRM organization, knowledge management, and technology-based CRM (Abdul et al., 2013).
Customer knowledge	Customer knowledge plays a pivotal role in CRM (Abdul et al., 2013).
Multi-disciplinary	CRM straddles multiple disciplines including marketing, IS (Information systems), IT (Information technology) and management, among others (Awasthi & Sangle, 2012).
Technological variations	
E-CRM	E-CRM is customer relationship management in e-commerce / e-business. (Kim, Zhao & Yang, 2008; Safari, Forouzandeh & Safahani, 2016). E-CRM is internet-based CRM, i.e. CRM software on the internet (Ortega, Martínez & Hoyos, 2008).
CRM 2.0	This involves CRM using Web 2.0 technology (Awasthi & Sangle, 2012).
I-CRM	Integrated CRM transcends CRM drawbacks and fosters strong customer relationships in a competitive environment (Abtin & Pouramiri, 2016).
M-CRM	M-CRM manages customer relations using the mobile channel (Valsecchi, Renga & Rangone, 2007)
Multi-channel CRM	This involves CRM use via multiple channels (Awasthi & Sangle, 2012).

Table 2.1: Synopsis of the CRM concept (continued)

Other CRM perspectives	
Philosophy	CRM can be viewed as a philosophy (Baksi & Parida, 2012; Neville, Heavin & Walsh).
Strategy	CRM can be viewed as a strategy (Abdul, et al., 2013; Kahreh et al., 2011; Raisinghani et al., 2005).
Marketing function	CRM can be viewed as a marketing paradigm (Kahreh et al., 2011).
Advantages, disadvantages and success factors	
Advantages	Numerous business performance accolades were attributed to CRM including improved financial results, personalised and enhanced service, enhanced operational efficiencies and gaining the competitive edge (Kahreh et al., 2011). CRM can improve customer satisfaction, loyalty and retention, and in the long term, profitability. It enables personalised services (Valsecchi et al., 2007). CRM will improve customer satisfaction, loyalty and retention (Raisinghani et al., 2005).
Disadvantages	High failure rate (55%-75%) in the implementation of CRM technologies. (Awasthi & Sangle, 2012, p. 445)
Success factors	"Successful implementation of CRM requires the proper implementation of people, process and technology mix" (Baksi & Parida, 2012, p. 22).

2.2.7 Information and communications technology (ICT)

Studies focusing on ICTs in general were sparse hence there was limited effort to define the term. Notwithstanding, some researchers subscribed to Ryssel, Ritter and Gemünden's (2004, p. 198) definition of ICT, which incorporated "all forms of technology used to create, capture, manipulate, communicate, exchange, present and use information in its various forms – business data, voice conversations, still images, motion pictures, multimedia presentations, etc." (see Gil-Saura, Ruiz Molina & Berenguer-Contri, 2016, p. 643; Ruiz-Molina, Gil-Saura & Moliner-Velázquez, 2010, p. 465). Expanding upon and operationalising this definition, in this thesis "ICT(s)" is used as an all-encompassing term referring to information technologies, communications technologies, software, hardware, platforms, as well as technology-

enabled products, services, and marketing activities. For example, e-commerce, Facebook, and digital marketing are considered ICTs.

2.2.8 Other terms – marketing performance, perceived effectiveness, leveraging

A limited number of journal articles in the search results for this study addressed the issue of performance, and even less tackled marketing performance, since precedence was given to technology adoption more so than its impacts. Hence, the concept of "performance" was not explored in detail in the literature. Notwithstanding, the performance dimensions of Kaplan and Norton's Balanced Score Card spanning financial, customer, internal processes, and learning and growth were examined (Abdul, Basri & Shaharuddin, 2013). It was also surmised that concepts such as effectiveness (Icha & Edwin, 2016), financial sustainability (Rahman et al., 2020), success factors (Sebora, Lee & Sukasame, 2009), efficiency and competitive advantage (Woon, Shafaghi, Woollaston & Lui, 2010), improving and sustaining (Ighomereho, Salome, Iriobe & Ofunre, 2019), had a performance connotation. Further, given ubiquitous usage of the term in academia and practice, several works referred to performance / organisational performance without an accompanying definition. Hence, for the purpose of this study, the term marketing performance will be interpreted in its broadest sense, encompassing multi-dimensional outcomes arising from marketing activities / practice.

Like performance, effectiveness was a commonly used term in the literature without the qualification of a definition. As previously mentioned, the term "effectiveness" has a performance implication. Given the critical realism underpinning of this study, the concept of "perceived effectiveness" was used recognising that individuals can only have a perception of reality (Danermark, Exström, Jakobsen & Karlsson, 2002). A similar recognition of the perception of individuals is noted in Davis' (1989) Technology Acceptance Model which revolves around the variables of perceived usefulness and perceived ease of use, as discussed in more detail later on in the chapter. Leveraging is another term used in everyday language, mentioned in articles without qualification via a definition (for example Hermawan & Suharnomo, 2021). Notwithstanding, for clarity, in this study, leveraging refers to usage, especially for deriving optimal / maximum results or performance. Against the backdrop of the technical and subject matter concepts reviewed in this section, the rest of this chapter entails an exploration and critical examination of the literature themes.

2.3 Adoption – determinants and status quo

Adoption, particularly in the area of e-BC, was the most prevalent theme in the literature addressing ICTs in marketing. Such focus was attributed to relatively low levels of e-commerce uptake by consumers, firms (particularly SMEs), industries and countries (especially developing ones), despite highly acclaimed benefits (Awa et al., 2010; Jaynal & Hassan, 2016; Mangiaracina, Brugnoli & Perego, 2009). Accordingly, much scholarly work revolved around factors influencing adoption at these levels with a view to providing insights beneficial to both theory and practice. From a theoretical perspective empirical examination of adoption determinants or drivers revealed those factors with greater and more consistent impact. This information in turn provided valuable direction on strategy to practitioners seeking to increase adoption of a particular ICT. An examination of adoption drivers explored in various ICT contexts ensues.

2.3.1 Consumer level

Academics alluded to several factors affecting consumer e-commerce adoption. Of these, trust was prominent (Berthon, Pitt, Cyr & Campbell, 2008; Bramall, Schoefer & McKechnie, 2004; Casaló, Flavián & Guinalíu, 2011; Muhammad & Muhammad, 2013), including e-trust (Bonera, 2011), and institutional trust (Maduku, 2016). Privacy and security issues were raised as well (Barry & Jan, 2018). Demographics, particularly gender (San Martín & Jiménez, 2011) and age (Cullen & Kabanda, 2018) also featured, in addition to education (Šapić et al., 2017). The use of incentives to encourage television-commerce (t-commerce) was also explored (Arroyo-Cañada & Gil-Lafuente, 2016). Trust, privacy and security, and demographics were therefore identified by researchers as leading factors affecting consumer uptake of e-commerce. They signified factors revolving around individual concerns and characteristics.

Apart from e-commerce, researchers sought to unveil factors affecting consumer adoption and acceptance of various ICTs / ICT-enabled services and activities. These included: mobile banking (Koenig-Lewis, Palmer & Moll, 2010; Makanyeza, 2017); mobile health services (Lee & Han, 2015); m-learning (Bakhsh, Mahmood & Sangi, 2017); social networking sites (Alarcón-del-amo, Lorenzo-Romero & Del Chiappa,

2014); cashless payment systems (Wulandari, 2017); and product innovations (Mannan & Haleem, 2017). An insightful development in the determinants discussion was the use of consumer groupings on the technology adoption curve. It was asserted that market segmentation using these groups led to enhanced ICT diffusion (De Marez, Vyncke, Berte, Schuurman & De Moor, 2007; Güngör, 2017; Verleye & De Marez, 2005). Accordingly, innovation-related and adopter-related characteristics were examined. The claim was also made that adoption determinants differed between task-oriented and enjoyment technologies (Kim, Kim & Kil, 2009). Similar adoption-oriented studies addressed consumer motivation and attitude towards new technology, for example, online press (Flavián & Gurrea, 2009), as well as intention to purchase or use, examined in the context of music downloads (Nel, Raubenheimer & Bounagui, 2009), and co-branded products (Matthew et al., 2012). More recent works on consumer intention focused on e-banking (Fatemeh Mohammad, Ramzani, Ebrahimzadeh, Sargolzae & Sepasgozar, 2020), mobile banking (Makanyeza, 2017), and online grocery shopping (Human, Ungerer & Azémia, 2020). This review revealed that adoption determinants varied based on the technology and other contexts, although overlap may occur. Further, technological factors were added to individual factors previously highlighted.

Several research studies on consumer adoption were crafted around a theoretical framework. For example, the Technology Acceptance Model (TAM) (Davis, 1989) centring on the variables of perceived usefulness and perceived ease of use (of technology), influenced the development of several studies, particularly on e-commerce (for example Bonera, 2011; Maduku, 2016). Despite significant criticism of the TAM for the limitations of its main constructs (Awa et al., 2010), and its inability to capture the complexity of context (Parker & Castleman, 2009), papers employed this model as a base, expanding it by drawing upon other variables raised in the literature, relevant to their research context. Accordingly, perceived enjoyment, and privacy and security were incorporated in a study on mobile commerce (Barry & Jan, 2018), perceived risk was a focal point in cross-national transactions (San Martín, Camarero & San José, 2011) and facilitation conditions (easy internet connection) were examined in online purchases (Bonera, 2011). Similarly, trust was explored as a factor in internet banking (Maduku, 2016), whereas individual factors and attitude were investigated in e-banking (Hamakhan, 2020). The influence of perceived self-efficacy, perceived compatibility (with values and lifestyle), in addition to social norms, were also studied in the mobile banking context (Makanyeza, 2017). Therefore, despite its limitations, extensive use of

the TAM fundamentals by researchers is indicative of the validity of the model. Notwithstanding the popularity of this model, growing use of the Unified Theory of Acceptance and Use of Technology (UTAUT) was observed in more recent works on consumer adoption and behavioural intention (see Arenas-Gaitán, Peral-Peral & Ramón-Jerónimo, 2015; Hamakhan, 2020; Human et al., 2020). However, this trend may not necessarily represent a deviation, since the UTAUT has been perceived as an extension of the TAM (Hamakhan, 2020).

2.3.2 Firm level

On the other hand, enquiries into e-BC adoption and usage by firms were guided to a greater extent by the literature, rather than an established theoretical framework. However, Roger's (1983) diffusion of innovation (DOI) theory did feature (see Brand & Eelko 2008; Gorla, Chiravuri & Chinta, 2017), as well as the influence of Tornatsky and Fleischer's (1990) technology, organisation and environment (TOE) framework (see Awa et al., 2010; Opoku, Agbekor, Deku & Adu, 2016; Rahman et al., 2020), and Davis' (1989) TAM (Awa et al., 2010; Low, Ullah, Shirowzhan, Sepasgozar & Chyi, 2020). One study was also influenced by the UTAUT model developed by Venkatesh, Morris, Davis and Davis, (2003) (Shahzad, Chin, Altaf & Anwar, 2020). The range of theoretical frameworks employed in research on firm adoption, combined with the literature suggest a different level of complexity adding organisational and environmental factors to the individual and technology factors identified in consumer adoption.

A synthesis of variables affecting the uptake of e-BC by firms revealed five categories, namely, technological factors, organisational context, external environment, decision maker's characteristics, and organisational learning (Gorla et al., 2017). Except for organisational learning, for the most part, these classifications were corroborated in a comprehensive literature review written on SME e-commerce adoption (Mohamad & Ismail, 2009). Similarly, as a precursor to developing an integrated model applicable to SME adoption, one study cognisant of the internet's uniqueness as a technology, added categories such as the firm's strategic orientation, its innovative capacity and use of IT equipment (Vilaseca-Requena, Torrent-Sellens, Meseguer-Artola & Rodríguez-Ardura, 2007). Accordingly, technological, managerial / decision-maker, organisational, environmental, and to a lesser extent social factors were all asserted to impact upon the

participation in e-BC by firms. Similar factors were noted in firm adoption of other ICTs, indicating applicability across technologies. These factors are detailed in an overview of 18 studies on firm adoption presented in Table 2.2 indicating the specific ICT context examined.

Table 2.2: Firm adoption factors examined in research

ICT Context	Factors examined	Citation
E-commerce	*Technology:* perceived ease of use, perceived usefulness, perceived behavioural control, perceived service quality *Organisation:* scope of business operations, firm size, mission, facilitating conditions, individual difference factors, social influence or subjective norms *Environment:* consumer readiness, competitive pressure, trading partners' readiness, perceived trust	(Awa et al., 2010)
Enterprise blogs	*Social exchange*: (enhance) reputation, expected relationship, trust *Innovation diffusion (Technology)*: relative advantages, complexity, trialability, and cost Adoption attitude and intention *Environment (external)*: competition, market dynamics *Organisation*: size	(Chien, Shu-Chen & Hsin-Hui, 2013)
E-commerce	*Technology*: electricity supply, expert skills, internet connectivity and accessibility, obsolete technologies, technology support *Organisation*: embezzlement, institutional support and willingness to adopt, size of institutions, incentives *Environment*: funding, requirements for adoption, legal protection, tax laws	(Eze, Awa, Okoye, Emecheta & Anazodo, 2013)
B2B e-commerce	*Technology context*: IT maturity *Organisational context*: informal linkages, organisational learning *External environment*: price competition *Decision-maker characteristics*: preference for negative information	(Gorla et al., 2017)
Business management software	*Technology factors*: perceived ease of use, perceived usefulness, intention to use, technological compatibility, intensity of use, web procurement	(Hernandez, Jimenez & Martin, 2010)
Several ICTs	*Organisation factors*: affiliation, sufficient capital, company age.	(Ismail, Zorn, Boo, Murali & Murphy, 2013)
NSD tools	*Technology*: perceived usefulness, perceived ease of use, compatibility *Environment*: supplier coercive pressure, competitor pressure, customer coercive pressure, *Organisation*: resource commitment	(Jin, Chai & Kay-Chuan, 2012)

Table 2.2: Firm adoption factors examined in research (continued)

ICT Context	Factors examined	Citation
Social media tools as a business strategy	*Technology factors*: perceived usefulness, perceived ease of use, perceived strategic value, impact of these on attitude and intention to use.	(Lorenzo-Romero, Alarcón-del-Amo & Constantinides, 2014)
Smart digital marketing capabilities	*Technology factors:* ease of use, perceived usefulness, perceived cost, higher return, efficiency, digital service quality, digital information quality, digital system quality, impact of these on attitude towards use and actual use.	(Low et al., 2020)
E-commerce	*CEO/owner characteristics* (individual factors) *Organisational characteristics*: e-commerce skills, firm size, industry types *Technological factors*: relative advantage and compatibility *Environmental factors*: government and external expertise support, technological infra-structure or pressures from business partners or customers	(Mohamad & Ismail, 2009)
E-CRM & B2B E-commerce	Firm's previous experience with information technologies (i.e. EDI)	(Ortega et al., 2008)
Innovation management applications (IMAs)	*Technology*: perceived usefulness, perceived ease of use, compatibility of IMA *Social*: need for interaction Attitude towards technology, intention to use	(Plewa et al., 2012)
E-commerce	*Technology:* performance expectancy, perceived risk *Individual*: effort expectancy; *Social*: social influence Facilitating conditions	(Shahzad et al., 2020)
Internet banking	*Organisation* (banks): age, size (no. of branches), capital asset base	(Thulani, Tofara & Langton, 2009)

Table 2.2: Firm adoption factors examined in research (continued)

ICT Context	Factors examined	Citation
Sales technology	*Social*: peer usage *Technology*: perceived usefulness Attitude towards technology, support service, usage	(Upadhyay, Khandelwal, Nandan & Mishra, 2018)
Digital TV	The group into which the consumer falls on the innovation adoption curve	(Verleye & De Marez, 2005)
E-commerce	*Environment:* complexity of competitive environment *Organisation:* Organizational complexity and orientation to network design, strategic complexity (orientation to market, marketing, relationships), innovative capacity (level of corporate innovation) *Managers' characteristics*: educational level *Technology:* IT equipment possessed and used	(Vilaseca-Requena et al., 2007)
Social media technologies	*Technology*: perceived ease of use, perceived usefulness *Social*: cultural and social values *Individual:* self-efficacy, technology resistance	Williams, Gavino & Jacobson, 2017

Apart from e-BC adoption by firms, other technologies provoking academic enquiry included the uptake of CRM as part of a business management software (Hernandez et al., 2010), and the acceptance of enterprise blogs as a means of enhancing the reputation of SMEs and large firms (Chien et al., 2013). Further, factors affecting the use of smart digital marketing capabilities for sustainable marketing strategies in property development was also the subject of research (Low et al., 2020). Researchers also approached the adoption theme focusing on specific industries. For example, the determinants and limitations of technology adoption by the retail trade was the focus of academic investigation (Romero & Martínez-Román, 2015). Similarly, the adoption of various technologies by the food-service industry (Ismail et al., 2013) and public higher education institutions (Eze et al., 2013) also received scholarly attention. Academic focus on diverse ICTs across economic sectors alludes to the extensive potential seen for performance enhancement from ICT adoption and usage.

2.3.3 Country level

At the country level, the DOI and TOE theoretical frameworks also influenced the development of research (see Durbhakula & Kim, 2011; Patra, Mahapatra & Patnaik, 2016). One study undertaking an analysis of 61 countries, attempted to capture all the elements affecting the progression of e-business on a national scale by proposing a model incorporating country, business, technology, and government factors (Durbhakula & Kim, 2011). Another paper highlighted the effects of macro and micro-level factors with a view to configuring a framework for national e-readiness (Berthon et al., 2008). E-readiness was also evaluated in a comparative study between China and India (Raven, Huang & Kim, 2007). The consideration of cultural and socio-economic factors presented further insights into the global diffusion of e-commerce (Yap, Das, Burbridge & Cort, 2006). Accordingly, the range of adoption determinants expanded further to incorporate factors pertinent at a national level, namely country, government, socio-economic, cultural and macro as well as micro-factors. Against this backdrop, it is understandable why many of the studies on e-BC adoption at the country level were limited to exploratory research reliant upon secondary data.

Apart from a multi-country focus, several studies spotlighted one country, examining the e-commerce status quo and issues arising, for example India (Vaithianathan, 2010), Saudi Arabia (Ezzi, 2016), Syria (Jaynal & Hassan, 2016), Jordan (Abbad, Abbad & Malik, 2011), and m-commerce implementation in Malaysia (Goi, 2008). Assuming a different stance, one paper stressed that e-commerce had the potential to exacerbate the digital divide, and by extension the economic disparity between lesser developed countries and their developed counterparts (Pires, Stanton & Salavrakos, 2010). To circumvent this situation, the recommendation was made for developing countries to encourage foreign direct investment in ICT infrastructure by internationalising firms (Pires et al., 2010).

In addition to e-BC, the adoption and status of internet marketing was investigated at the country level, in particular Jordan (Shaltoni, 2017), and the Czech Republic (Smutny, 2015), using firms as the unit of analysis. In one case it was posited that internet marketing should be leveraged in a B2B context rather than being confined to its traditional B2C usage (Shaltoni, 2017). In the other, underutilisation of internet marketing was highlighted wherein firm website usage was limited to static

communication (Smutny, 2015). Moreover, two issues detracting from the performance of firms' online marketing efforts were emphasised, namely the lack of integration of social media marketing with other marketing activities and the need for proper performance metrics (Smutny, 2015). These studies were significant because of the effort to transcend the adoption theme to scrutinise issues related to enhanced performance.

This review of adoption determinants and status quo has illustrated a predominance of research focused on the consumer level in extant literature since less academic enquiry was undertaken at the firm or country level. Further, of the limited works addressing firm adoption, very few examined the marketers' perspective, who would be expected to play to key role in the effort to deploy ICTs in marketing. Instead, scholarly work was undertaken by drawing upon the perspectives from IT or other types of users, for example faculty members in a university (Mohamed & Mourad, 2014). Accordingly, research into firm adoption investigated from the marketers' viewpoint represented gaps in the literature. Moreover, the range of ICTs adopted was constricted to e-BC, e-marketing and to a lesser extent other technologies such as CRM. These ICTs may not be indiciative of the full range of technologies being used by marketers, and therefore present another knowledge gap.

2.4 Stages of adoption

The research pieces examined in the foregoing discussion revolved around factors influencing the initial decision by consumers and firms to adopt an ICT-enabled marketing activity, for example e-BC or e-marketing. While this initial decision was the focal point of most academic enquiries, it was also posited in the literature that ICT adoption is a process, unfolding in stages. A prominent underlying theory used by researchers for this conceptualisation, was the DOI (Rogers, 2003). This model espouses that organisations progress from the initiation stage involving information gathering and other preliminary activities to inform the adoption decision, to the implementation and usage of the ICT. Additionally, the notion that initial adoption does not signify continued usage also surfaced. However, research examining the areas of implementation, usage, diffusion, and post-adoption ICT results was scant and therefore presented a gap in the literature. They are herein examined.

Among the limited number of studies looking beyond initial adoption, researchers explored factors impacting upon consumers' disposition towards repurchases and continued usage (Albashrawi & Motiwalla, 2017; Fikri & Lisdayanti, 2020; Omotayo & Adeyemi, 2018), as well as that of firms operating in a B2B context (Agag, 2019). Given the significance of long-term customer relationships in RM, antecedents of customer loyalty and retention in an online shopping context were also examined, including trust and satisfaction (Kim et al., 2008). In a similar vein, factors impacting the switching propensity of two groups of cloud storage users, that is, those subscribing to a single versus multiple service providers, were investigated (Goode, 2020). Accordingly, variables affecting trust and commitment were explored. Sustaining firms' post-adoption results was another subject of academic enquiry (Vilaseca-Requena, Torrent-Sellens, Meseguer-Artola et al., 2007). In this regard, the alignment of marketing communications and e-commerce strategy with corporate strategy and objectives was emphasised (Ramsey, Ibbotson, Bell, & Gray, 2003). This stream of research therefore had a focus on performance.

Extending the discussion to the diffusion of ICTs, the dispersion of CRM technology in the German health sector and m-CRM in Italy, received academic attention (Raisinghani et al., 2005; Valsecchi et al., 2007). Scholarly work was also conducted on the adoption and diffusion of new ICTs within the firm context, for example, a web blackboard at a

university (Mohamed & Mourad, 2014). Several researchers also sought to investigate the progress and diffusion of e-business in various developing countries (for example, the Caribbean, Ghana, China and India), particularly in the SME sector, as well as factors (internal and external) impeding its uptake and success (Ramsey et al., 2003; Wresch & Fraser, 2006). Lack of strategy, connectivity and logistics problems, fraud, and payment facilitation were some of the issues encountered.

Also influenced by the DOI theory, academics supplemented the discussion on adoption stages by positing that organisations progressed through different stages of e-BC, that is, informational (website), interaction, and transactional (Brand & Eelko, 2008). Further, it was claimed that the adoption determinants varied according to the stage (Brand & Eelko, 2008). Several studies revealed that many companies, especially SMEs, were still at the informational or interaction stages (Ramsey et al., 2003; Thulani et al., 2010), as opposed to the transactional stage in which the full potential of e-commerce could be realised. A recent study demonstrated that the applicability of the adoption process also extended to the digitisation of bank customers as they progressed from using informational to transactional services (Carbo-Valverde et al., 2020). Similar to the e-BC context, research acknowledged that firms also progressed through stages of internet marketing adoption, via features offered on their website, that is, communication, transactional and transformational (Shaltoni, 2017). Apart from viewing technology adoption as a process, researchers also used the process perspective to investigate and provide insights into the development of innovations, and new products and services by firms (Catharina & Strandvik, 2014; Durmusoglu, 2009; Häikiö & Koivumäki, 2016; Kok Lian, 2017). Hence, a major takeaway from this review is the observation that process and stages appeared to be applicable across all levels of ICT adoption in addition to INPAS development. Moreover, despite the academic articles reviewed herein, academic enquiry transcending the initial adoption decision to examine adoption as process, its progress in stages, and post-adoption results was scant, presenting another gap in the literature.

2.5 Barriers and challenges

The adoption topic was also indirectly tackled by numerous studies emphasising the barriers, risks, limitations and challenges, especially pertaining to e-BC, detracting from the advancement of this novel channel of distribution. For consumers, these included

technical and non-technical limitations (for example security and trust) (Abbad et al., 2011; Jaynal & Hassan, 2016) as well as channel, transaction, and social risks (San Martín et at., 2011). Likewise, consumer resistance to innovations, including radical innovations, gained the attention of scholars highlighting individual, social and technical factors (Abbas et al., 2017; Heiskanen et al., 2007). For firms, major barriers comprised investment cost, technological barriers, lack of synchronicity with suppliers' and customers' practices, lack of a proper business e-model, in addition to legal, security and employee issues (Chitura, Mupemhi, Dube & Bolongkikit, 2008; Ramsey et al., 2003; Thulani et al., 2010). Challenges facing developing countries were largely related to inadequate technological and other infrastructure (Raven et al., 2007). Accordingly, barriers and challenges stemmed from technical, individual, social, organisational (resources) and environmental factors demonstrating some parallel with adoption drivers.

A noteworthy theme in the literature was challenges involved in CRM implementation, given a 55% to 75% failure rate of these types of initiatives (Awasthi & Sangle, 2012; Raisinghani et al., 2005). Underlying reasons posited for adverse CRM performance included: lack of integration between people, process and technology (Baksi & Parida, 2012); over-emphasis on the technological aspect, disregarding the customer and process elements (Baksi & Parida, 2012; Kim et al., 2008); and improper implementation (Awasthi & Sangle, 2012). This theme underscored that beyond initial adoption, firms faced implementation challenges with ICTs, especially the more complex ones.

2.6 Impact of adoption and usage

Academic research on adoption in the literature was also approached from the angle of its impact. Though not as fecund as the topic of adoption itself, scholars have shared some insights into the effect of technology adoption and usage on the firm and on consumers. Regarding firms, the impact on structure, performance and service quality was highlighted. For consumers, their resulting empowerment was underscored. These points are discussed in this section.

2.6.1 Impact on structure, performance and other areas

Research has demonstrated that the adoption of ICT, particularly e-BC, had an impact on organisational structure. As such, it was asserted that e-commerce should not be undertaken in isolation since embarking upon such an initiative had significant repercussions within the organisation, including its overall structure, that of its (marketing-related) IT department, and its brand architecture (Strebinger & Treiblmaier, 2006). Therefore it was recommended that these elements of the firm be integrated. Apart from structure, organisational strategy, management, and marketing tactics were all cited as being impacted by the firm's uptake of e-BC (Bordonaba-Juste, Lucia-Palacios & Polo-Redondo, 2012). This finding suggested the need for change and responsiveness in these areas.

Since performance improvement is one of the core reasons for technology adoption, it was not surprising that researchers scrutinised the improvements obtained from the usage of various technologies. For example, linkages were demonstrated between dimensions of CRM and organisational performance using Kaplan and Norton's Balanced Score Card (Abdul et al., 2013). Focusing on the customer, it was asserted that CRM improved business performance by enhancing customer satisfaction and loyalty (Daramola & Adekunle, 2013). Similar observations were made for e-CRM (Safari et al., 2016) and m-CRM (Valsecchi et al., 2007). Further, it was claimed that CRM technology could also be leveraged in conjunction with mathematical models to measure the impact on a company's bottom line by calculating a customer's lifetime value (Kahreh et al., 2011). These studies suggest that given proper implementation, significant customer-centric, financial and other benefits could be derived from CRM.

The impact of e-marketing on firms' performance, as well as management challenges encountered, was also explored by researchers. There was evidence to show that firms practising e-marketing were more likely to have an improved marketing performance (Barwise & Farley, 2005; Brodie et al., 2007, as cited in Brady et al., 2008). Specifically, social media usage was noted to result in cost reduction, improved customer relations, as well as better information accessibility (Parveen, Jaafar & Ainin, 2016). Moreover, studies posited that e-marketing could have a positive influence on sustainable business performance and be leveraged as a source of sustainable competitive advantage for organisations focused on achieving the triple bottom line

(Adnan et al., 2018; Ruiz-Molina et al., 2010). Notwithstanding these advantages, the resources required to attentively manage an increasing number of online platforms, in addition to achieving an integrated approach, presented some of the issues encountered with e-marketing (Smutny, 2015). This e-marketing review indicated that together with performance benefits, several challenges also arose with e-marketing.

Apart from CRM and e-marketing technologies, given the onslaught of the Covid-19 global pandemic in 2020 and subsequent restrictions on public gatherings, more recent studies have proposed the use of ICTs to overcome adverse business repercussions. For instance, e-BC adoption was asserted to have a positive impact upon SME performance (Shahzad, et al., 2020). Further, ICT orientation (use of devices, networks, the internet and online platforms) was a variable noted to impact positively on brand performance of a university given restrictions of classroom teaching (Chaudhary, Chaudhary & Ali, 2020). These studies suggest that despite the decline in revenues registered by many organisations during the coronavirus outbreak, ICT usage was an avenue to be considered for improved business results.

In addition to organisational structure and performance, the impact of ICTs on store equity (the retailer equivalent of branding) and consumer behavioural intention, received scholarly attention (Gil-Saura et al., 2016). Also, recognising that technology usage, specifically e-commerce, impacted upon customer satisfaction, studies deliberated upon factors affecting customer satisfaction in social commerce (Beyari & Abareshi, 2016), mobile commerce (San-Martín & López-Catalán, 2013), and the customer journey using an e-commerce website (Mangiaracina et al., 2009). The effect of INPAS on service encounters and customer satisfaction presented another source of enquiry (Fuentes-Blasco, Moliner-Velázquez, Servera-Francés & Gil-Saura, 2017; Henten, 2012). Further, the issue of value creation being affected by ICTs, particularly in the context of internet customer interface, was also the subject of research (McIvor, O'Reilly & Ponsonby, 2003). This review has therefore highlighted the positive performance impact of ICT adoption impact on a range of customer-centric and financial areas, as well as the challenges which accompany them. Notwithstanding this review, scholarly work on ICTs in marketing which incorporated a performance component was limited and therefore represented an area requiring greater academic enquiry.

2.6.2 Impact on service quality

The predominant theme in the literature addressing ICT adoption and usage in services was service quality. Academic attention was placed on identifying and prioritising service quality dimensions in environments utilising technologies in the provision of services to customers. These included: mobile telephony (Nimako, Azumah, Donkor & Adu-Brobbey, 2012), airport (Protus & Govender, 2016), retail banking (Stamenkov & Dika, 2016; Tsoukatos & Mastrojianni, 2010), and tourism (Sharma, 2018). Some studies zeroed into examining the perceived quality of the specific customer interface, as a proxy for the overall service, for example, B2C websites (O'Cass & Carlson, 2012) and a campus portal (Mohamad Noorman, 2007). Researchers also examined the service quality issue in ICT-mediated services or contexts (for example mobile health) from the perspective of its effects on other customer variables including: perceived value and satisfaction (Clemes, Shu & Gan, 2014), e-loyalty (Li, Aham-anyanwu, Tevrizci & Luo, 2015), long term customer relationships (Dai & Salam, 2019), and continued usage (Akter, Ray & D'ambra, 2013). These research pieces are indicative of the significant impact ICTs have had on services and service quality, more so than in a product-based context.

Contributing to the quality theme, a conceptual model was developed to produce sustainable e-service quality, that is, superior service on a consistent basis, examined from both the internal and external customers' viewpoints (Stamenkov & Dika, 2015). Additionally, leaning on the preventive philosophy employed in logistics and maintenance management, case study research was undertaken to investigate leveraging technology proactively to avert services failures and customer complaints in the telecommunications industry, and passenger flights (Barkai & Harison, 2011; Barkai & Harison, 2013; Harison & Barkai, 2011). In both cases severe repercussions occur from service failures. ICTs such as automated systems for telecommunications line testing and detection were used as part of the preventive strategy to reduce outages and infrastructure malfunctions. The use of virtual and physical engagement platforms to inform service quality presented another example of using technology for quality enhancement (Breidbach, Brodie & Hollebeek, 2014).

Scholarly focus was also placed on service quality in the context of CRM. It was claimed that while ICTs (specifically automated services), improved firms' service

delivery efficiencies, it adversely impacted upon the relational quality with customers (Baksi & Parida, 2012). Analogous results were noted with the use of CRM technology (Husain, Altameem & Gautam, 2013). This point was noteworthy given the growing tendency to incorporate ICTs in services. Apart from examining the impact of CRM and other technologies on service quality, the scenario of e-service quality impacting upon CRM performance was also demonstrated (Wahab, Al-Momani & Noor, 2010).

A major debate in service quality literature was the suitability of Parasuraman, Zeithaml and Berry's (1985) SERVQUAL model for all research contexts (Nimako et al., 2012). In many cases an adapted version of this theoretical framework was used, particularly for studies assuming a quantitative approach (for example Sharma, 2018; Stamenkov & Dika, 2016; Tsoukatos & Mastrojianni, 2010). Alternative theoretical underpinnings used by scholars to ascertain service quality dimensions included the Technical and Functional Quality model (Gronroos, 1984, 2000) (Nimako et al., 2012), and the Banking Service Quality (BSR) scale (Tsoukatos & Mastrojianni, 2010). Nevertheless, qualitative approaches including case studies were also utilised (for instance Harison & Barkai, 2011; Philipp, 2013). From a theoretical standpoint therefore, despite its limitations SERVQUAL was drawn upon by many studies investigating the most suitable service quality dimensions for a particular ICT-enabled context.

2.6.3 Impact on consumers

A compelling theme raised in commentary articles was the claim that ICTs such as the internet and related technologies had fuelled consumer empowerment, effectively ceding power away from firms (Constantinides, 2008; Pires et al., 2006). Entire industries were experiencing disintermediation as a result of this shift in power, for example, travel and tourism, photo printing, newspapers, and banking (Constantinides, 2008). The power transfer was assessed as an unintended consequence of the internet which was backfiring on marketers (Pires et al., 2006). Through social media, blogs and electronic word of mouth, consumers freely voiced and shared opinions about companies and products with the extensive online community (Hsueh & Chen, 2010). Adverse remarks could tarnish a brand or alternatively, positive comments could be leveraged for growth. Marketers were therefore challenged to manage the outcomes of these types of social fora disseminating information not necessarily consistent with their intended message, on a mass scale.

Due to online information consumers were assessed as being more informed, educated and discerning in their decision-making (Constantinides, 2008). Additionally, the mobile platform created the "always connected consumer/customer" (Coussement & Teague, 2013). The implication of this 24/7 facility was that consumers' access now transcended time, thereby pressuring firms to respond with full time services, engaging the participation of the customer. For example, banks offered ATMs as well as online services (Narteh, 2012). The hospitality and travel sector reacted by providing mobile apps allowing customers to book rooms and make travel arrangements from their phone at any time (Coussement & Teague, 2013). Given these developments, the insightful observation was made that this shift in the balance of power towards the consumer may be a permanent, structural change in the market and if so, the way in which marketing strategies are developed may have to be relooked (Pires et al., 2006). As such, it was asserted that marketers need to change from pressure tactics to consumer advocacy given growing consumer empowerment (Constantinides, 2008). In line with the consumer empowerment theme, academic work was conducted to construct an e-lifestyle instrument capturing the myriad ways in which ICTs were affecting consumer behaviour (Chian-Son, 2011). Such information was assessed as invaluable to segmentation efforts and the development of marketing strategies (Chian-Son, 2011). Notwithstanding many benefits, it was cautioned however, that this new empowerment had a downside for consumers making them vulnerable to breaches of privacy (Pierson, 2012). Activities such as being online more frequently, releasing personal information on social networking sites and conducting transactions via e-commerce, made consumers more vulnerable (Pierson, 2012). As a result, research showed that customer security online was an issue that companies should address, especially those pursuing e-commerce.

2.7 Adoption and usage of ICTs in marketing theory and practice

It would be remiss to overlook in this literature review how ICTs have impacted upon traditional marketing, also known as transactional marketing, since it is arguably regarded as the foundation of marketing theory. Traditional / transactional marketing (TM) is characterised by its emphasis not only on the marketing mix (Brodie, Coviello, & Winklhofer, 2008), but also its mass market focus, as opposed to an individualised approach (Holland & Naudé, 2004). The marketing mix, or the 4Ps (product, price, place, promotion) has been the hallmark of the discipline for many decades, comprising

marketers' main toolkit. More recently, it has been argued that TM has given way to its progression - RM (Grönoos, 1994). Peer-reviewed academic journals addressing the impact of ICT on TM were notably sparse, presenting a lacuna in the literature.

One recent study in the search results focused on the effects of technology on the marketing mix. Specifically, the empirical research examined the use of digital technology in the augmented marketing mix, comprising product, price, place and promotion, adding the three Ps of people, process and physical evidence (Gutierrez-Leefmans, Nava-Rogel & Trujillo-Leon, 2016). The context of the enquiry was Mexican SMEs. Two core findings emanated from this research. Firstly, the firms' use of digital technology was heavily skewed towards the promotion aspect of the mix and underutilised in the other areas. Secondly, while many firms had websites, most were only using it for one-way communication, a finding also noted in e-BC and e-marketing studies (Ramsey et al., 2003; Thulani et al., 2010). Notwithstanding, the limited resources of SMEs may have been a factor deterring greater use. Despite limited empirical studies, a comprehensive review of the ways in which ICTs could be incorporated into each element of the marketing mix was provided by Chaffey, Ellis-Chadwick, and ProQuest (2019). Further, an e-marketing mix has been developed adding factors pertinent to an electronic context such personalisation, privacy, community, customer service, security, and (web) site design (Kalyanam & McIntyre, 2002). A variation of the e-marketing mix which included performance as a factor was cited in a more recent study seeking to enhance e-marketing strategy through focus on the elements of this model (Ighomereho et al., 2019). Researchers' selection of the marketing mix as the basis for examining and capturing ICT usage in marketing demonstrated the relevance of TM.

Conversely, the TM framework and its practitioners received criticism in the literature. One argument levelled was the notion of loss of relevance of TM caused by technological advancements and ensuing consumer empowerment (Constantinides, 2008). Hence, it was noted that TM features such as firm dominance, mass marketing and one-way communication to customers facilitated by traditional media (television, press, radio), has given way to relationship building (Berry, 1995; Grönoos, 1994), as well as customer advocacy and two way feedback enabled by the internet, social media and CRM technologies (Constantinides, 2008). Further, focus on the TM framework was viewed as tactical, distracting marketers from strategic obligations, which

culminated in diminishing the discipline's stature in the executive boardroom (Constantinides, 2008). Much of the criticism raised was based on observations that marketers had been too preoccupied with the marketing mix, particularly "P" for promotions (Baker, 2013), comprising the array of advertising, promotions, communications, merchandising, and a host of related activities. Such focus was described as "tip of the iceberg" marketing, which, while being the most publicly visible, was effectively missing the bigger picture (Baker, 2013).

With regard to ICT usage within RM, the other major marketing paradigm, studies focused on services marketing and the customer journey (for example Barnes et al., 2005; Mangiaracina et al., 2009), as well as customer-centric areas such as service quality and customer retention (Mohamad Noorman, 2007; Sharma, 2018) were set within this framework, though often not explicitly expressed. Further, research addressing CRM was also inextricably linked to RM. Hence, linkages between ICT and RM have been examined in the course of this chapter since it is a much broader framework to capture than TM.

Apart from investigating ICT usage in TM and RM, another core marketing area examined in the literature was segmentation. Ways in which ICTs have been used in segmentation was the topic of one paper which reviewed extant literature on market segmentation in tourism (Juho, 2013). The author lamented the lack of research in such a fundamental marketing area. Notwithstanding, the observation was made that ICTs were mainly being leveraged by firms for data collection and for bookings. Both factors were then used to inform segmentation efforts. Accordingly, this review of ICT usage in marketing theory illustrated that research in this area was scant, revolving around TM, RM and segmentation. It therefore constituted another gap in extant literature. The central theme of the articles reviewed was the scope of usage of technology.

2.7.1 Marketing practice

The previous sections in this chapter addressed ICT adoption and related themes within the context of discrete marketing areas. These areas could be described as marketing functions or responsibilities such as distribution and sales (e-BC), advertising and promotions (e-MC), new product development (NPD), consumer behaviour, and services marketing. The incorporation of ICTs into two dominant theoretical

frameworks -TM and RM- was also reviewed. Notwithstanding the value of these works, an important juncture in the "ICT in marketing" discussion is also the impact of the barrage of technologies on marketing overall, as viewed from the perspective of the marketer. This holistic view encompasses the marketing discipline, marketing theory and practice, and the suite of functions undertaken by marketing managers and like professionals (for example, planning, pricing, research, analysis etcetera). Scholars have flagged the magnitude of technology's impact on marketing theory and practice (Brady et al., 2008; Naudé & Holland, 2004), asserting that this discussion is fundamental, possibly overshadowing the prevailing debate on TM versus RM (Naudé & Holland, 2004). Accordingly, this section examines available literature addressing the holistic focus on marketing.

Despite its importance, academic papers providing insights into this holistic perspective were sparse to date, comprising mainly conceptual, theoretical and commentary deliberations, with limited empirical research. A focus of extant research on specific media including the internet and databases was noted, as opposed to addressing "the totality of ICT within marketing" (Brady et al., 2008, p. 1). A similar observation was made from the search results for this thesis, thereby supporting this assessment.

In their assimilation of the impact of ICT on marketing, scholars viewed ICTs as enabling instruments. As such, one theme in the literature centred on leveraging the transformative capabilities of ICTs to take marketing, including marketing practice and functions, to new heights, not previously possible. The example of using the internet to conduct market research was cited (Naudé & Holland, 2004). Additionally, it was stated that ICTs could transform intra and inter-organisational relationships (Naudé & Holland, 2004), thereby enabling greater synergies within the firm, with its external partners and stakeholders, and within networks. In order to circumvent the criticism of the discipline becoming too tactical, scholars also advocated for marketing to leverage technology and assume a more transformational stance focused on higher level, strategic objectives such as sustainability, environmental protection and enhanced human welfare (Baker, 2013).

Another theme addressed the incorporation of ICTs into contemporary marketing practice (CMP). This topic was supported by a seminal research series conducted on a cross-section of firms, from more than 15 developed and developing countries. The

CMP framework captured fundamental changes to marketing practice from the late 1990s to the late 2000s (Coviello, Brodie, Danaher & Johnston, 2002), as the theoretical debate on the shift from TM to RM ensued. The study posited that the TM and RM frameworks are not mutually exclusive, and moreover, that three dimensions could be identified within RM: database marketing (DM); interaction marketing (IM); and network marketing (NM). The findings revealed that instead of a dichotomous choice, as advocated in academia, marketers were employing a pluralistic approach, either leaning more towards transactional, or relational, or some hybrid of the four approaches. Recognising the growing significance of ICTs within marketing practice, the CMP framework was later expanded to include e-marketing (Brady et al., 2008; Brodie et al., 2008). The CMP research concluded that ICT's role in marketing practice was progressively increasing.

Stemming from the growing incorporation of ICTs into marketing practice, the need for an expansion of the skillset required by marketers arose as another theme in the literature (Brady et al., 2008; Naudé & Holland, 2004; Schlegelmilch & Sinkovics, 1998). However, it was apparent that marketers were struggling to incorporate ICT into their arena (Brady et al., 2008; Kokt & Koelane, 2013). One reason proffered for marketers' sluggish response to technology adoption was the incidence of costly failures of initial ventures (Brady et al., 2008). Another was the possible incompatibility with information systems which are transactional by nature whereas marketing has a creative component, thereby requiring more dynamic IS support (Ekman, Erixon & Thilenius, 2015). In addition to technological skills, managerial, and organisational competencies were also identified as important for marketers in this new era (Brady et al., 2008). It was contended that not only the management of external relationships, but also the harnessing of inter-departmental relations by marketing was equally important for the transformational potential of ICT-integrated marketing to be fully achieved (Brady et al., 2008). Hence, it was necessary for the competing interests of departments particularly IT, finance and marketing to be managed into alignment (Brady et al., 2008).

The fourth theme in the literature comprised the significance of information management in contemporary marketing (Holland & Naudé, 2004). Information management was highlighted due to voluminous information generated by technology (Audzeyeva & Hudson, 2016), and the advent of fragmented, complex markets (Javalgi,

Radulovich, Pendleton & Scherer, 2005). Accordingly, researchers remarked that the world was in the information age and further, that marketing had progressed from the transaction to the relationship era, and was now in its third phase characterised as the information-marketing era (Holland and Naudé, 2004).

Several papers emphasised the importance of information (for example Hanssens, 2002), and the need for marketers to be adept at processing it (Audzeyeva & Hudson, 2016; Brady et al., 2008). As such, technologies including applications assisting with data management became relevant. One such IT tool was business intelligence (BI) applications. BI applications manage information / data sets to assist executives and middle management in decision-making related to strategy development (Audzeyeva & Hudson, 2016). However, despite their benefits, a bank case study on BI apps revealed limited use (Audzeyeva & Hudson, 2016). The study posited that an organisation's ability to reap the long term strategic rewards of BI apps was influenced by its deep structure comprising core beliefs, organisational structure, control systems, and distribution of power, more so than technological factors (Audzeyeva & Hudson, 2016).

From the review of articles written on ICT in marketing using the holistic perspective, it was evident that research in this area was lagging behind that of the sub-fields, even though this viewpoint is arguably more strategic. Another gap in extant literature was therefore presented. Themes at this holistic juncture of the literature included: the transformative capabilities of ICTs; its impact on marketing theory and practice, as well as marketers' skillset; and the greater need for information management. Notwithstanding the paucity of research conducted in this area, in their contemplations of ICTs' impact on marketing, by and large scholars have come to a common conclusion – the skillset of marketers needs to be reviewed.

2.8 Leveraging ICTs

Beyond adoption-related themes and the impact of ICTs on firms and consumers, some researchers attempted to zero in on leveraging ICTs for performance enhancement, particularly in the area of innovation and the development of new products and services. INPAS became a crucial function within marketing since new products and services generated a significant amount of income for organisations. However, a high failure rate was also noted with INPAS. Consequently, this situation triggered academic research to

generate insights into improving the outcome of INPAS efforts. Hence, scholarly works undertaken on ICT usage in INPAS are herein reviewed.

Several papers advocated the need for increased consumer input, involvement and focus in firms' innovation process, for greater success in INPAS initiatives. For instance, customer knowledge (comprising knowledge for, from and about customers) was considered a prime resource for the NPD process (Koniorczyk, 2015). Further, a proactive market orientation approach (geared towards creating superior customer value) was deemed to enhance NPD (Jiménez-Zarco et al., 2012). It was also demonstrated that customer co-creation should be leveraged for services innovation given the latter's inherent characteristic of co-production with the customer (Ozdemir, Trott & Hoecht, 2007). The main constructs of living labs designed to facilitate customer co-creation in all stages of INPAS also received attention by academics and practitioners (Westerlund, Leminen & Habib, 2018). This increased customer involvement in the innovation process was asserted to foster a more balanced role between marketing and technology (Ozdemir et al., 2007).

In an effort to explore the use of ICTs in facilitating INPAS, research investigated the utilisation of tools such as innovation management applications (IMAs) (Plewa et al., 2012). Unlike software enabling linkages between manufacturing and supply chain management (for example enterprise resource planning systems - ERPs) which are more popular, IMAs enabled innovation by linking administration, marketing, and research and development (Plewa et al., 2012). It was noteworthy that the use of both IMAs and new service development tools was proven to be low particularly in the financial sector (Jin et al., 2012), the context of this thesis.

Studies also examined a variety of factors impacting positively upon firms' INPAS efforts. As such, market, organisational, and technological competencies were singled out (Hsien-Tang & Hsi-Peng, 2010), as well as collaboration skills (Hung, 2012; Vilaseca-Requena, Torrent-Sellens & Jimenez-Zarco, 2007), and knowledge sharing among managers and employees (Lee & Hidayat, 2018). Moreover, fostering creativity (Giannopoulou, Gryszkiewicz & Barlatier, 2014) and organisational citizenship behaviour among employees (Liao, 2015), were asserted to influence INPAS efforts positively as well. Apart from competencies, skills and behaviours, a framework for identifying critical success factors for INPAS, particularly in the case of e-government

was proposed. These included elements such as: idea generation sources; impact on organisational structure, resources allocated and the market; in addition to organisational behaviour towards service innovation; and its actions towards NSD (Angelopoulos, Kitsios & Papadopoulos, 2010). Hence, researchers have contributed significant insights to alleviate pitfalls in INPAS efforts.

Regarding marketing per se, a qualitative study of United Kingdom SMEs demonstrated that digital technology (for example ERP, CRM and social media) had a positive impact upon integrated pricing, product and promotion information, as well as design innovation, thereby enhancing the firms' marketing capabilities (Foroudi, Gupta, Nazarian & Duda, 2017). Further, it was seen that social networking sites (SNS) could be leveraged by small firms to improve intelligence gathering on customers, with a view to enhancing INPAS efforts and performance (Scuotto, Del Giudice & Carayannis, 2017). Additionally, limited research focused on marketing innovation -a stream of retail innovation- investigating the former's impact upon customer satisfaction (Fuentes-Blasco et al., 2017). There was no consensus on the definition of marketing innovation. However, the concept has been interpreted as improvements in one of the discipline's various areas including merchandising, services, and the marketing mix, among others (Fuentes-Blasco et al., 2017). These studies highlighted two points, namely, the indirect effect on INPAS from technology usage in other marketing areas, and the impact of INPAS on customers.

The contribution of the technological component in INPAS was another discussion point in the literature. It was posited that increasing deployment of ICT in marketing had a direct, positive impact upon NPD success (Vilaseca-Requena, Torrent-Sellens, & Jimenez-Zarco, 2007). Research also emphasised the pivotal role of IT in services innovation (Häikiö & Koivumäki, 2016). IT infrastructure particularly, accounted for 37%-50% of the IT budget in advanced firms and had the greatest (positive) impact on the NDP process (reduced cycle times etcetera), while also facilitating collaboration among the NPD team (Durmusoglu, 2009). These studies underscored the significance of the technology aspect of INPAS.

In addition to the themes outlined above, several studies proposed that external networks should be leveraged to enhance innovation efforts, especially by SMEs and in hi-tech industries (Faroque, Morrish & Ferdous, 2017; Vrgovic, Vidicki, Glassman &

Walton, 2012). Apart from leveraging networks to enhance INPAS efforts, the issue of value creation, especially in a networked or eco-system context, was also examined by researchers (Barile, Ciasullo, Troisi & Sarno, 2017; Basole & Rouse, 2008). The transformative capabilities of ICTs contributing to value creation in several industries was highlighted namely, airlines, retail, automotive, healthcare and telecommunications (Basole & Rouse, 2008). Conversely, it was argued that the growing incorporation of technologies was "dehumanising" services and therefore detracting from service value (Meyronin, 2004). These potentially incongruous results of ICT usage in INPAS underscore the importance of gaining customers' input and feedback in INPAS efforts.

2.8.1 ICT - Strategic use and link to strategy

The strategic use of ICTs, in particular e-MC, illustrated another way in which ICTs could be leveraged for enhanced performance. Apart from usage in INPAS, not much academic research focused on the aspect of linking ICTs to strategy and using technologies to gain the competitive edge or to maximise performance. The focus on the strategic use of e-marketing has particular relevance in refuting the critique levelled against marketing for placing inordinate focus on "P" for promotions. The strong communications element in some e-marketing definitions gave credence to this criticism. Since marketing comprised many more functions including research, planning and strategy development to name a few, limiting the marketing component in the e-marketing construct to communications supported the claim that the discipline's other (strategic) activities were being overshadowed (Baker, 2013). The conflation of marketing to communications also diminished the perception of the discipline's role, supporting the contention that marketing was just a cost centre within the organisation (Hinshaw, 2005). E-marketing in some instances of contemporary usage, therefore, appears to be a misnomer.

Researchers addressing e-marketing attempted to counter this debate in several ways. Firstly, it was posited that the communications function in e-business has both a strategic and a tactical level (Rowley, 2001). Secondly, several papers examining the communications aspect of e-marketing appropriately distinguished it as e-MC (Rowley, 2001; Tankosic & Trnavcevic, 2008). Research was also conducted on the use of social media marketing, a significant component of e-marketing, as a strategic tool (Icha & Edwin, 2016), or as a part of business strategy (Lorenzo-Romero et al., 2014). The

observation was made that much of the corporate presence on social media had no "marked focus" or strategy, nor attempted to engage the public (Icha & Edwin, 2016, p. 3). Additionally, social media was being used as an isolated tool rather than part of integrated communications (Smutny, 2015). Such lack of strategic focus, public engagement and integration into overall communications, was diminishing the effectiveness of social media marketing (Icha & Edwin, 2016). Conversely, it was affirmed that firms adept at using social media platforms to engage in dialogue with consumers could begin to shift the balance of power back in their favour (Icha & Edwin, 2016).

Apart from e-MC, research also tackled optimising the use of business intelligence (BI) applications to enhance marketing strategy decision-making in the post-implementation phase (Audzeyeva & Hudson, 2016). Further, academics have deliberated upon leveraging ICTs (e-BC) for the competitive edge in customer satisfaction in the B2B context (Barnes et al., 2005). The findings emphasised the significance of attending to the emotional dimension of customer service in an ICT-enabled environment. Altogether, the articles reviewed herein demonstrate scholarly efforts to investigate leveraging technology to enhance strategic direction and strategy.

2.9 ICT adoption and usage in the financial services / banking sector

Financial services stood out as a leading sector affected by developments in ICT (Dzogbenuku, 2013; Carbo-Valverde et al., 2020). Noted for its investments in IS, banking was one of the foremost and largest sectors to offer technology-mediated services (Kazi, 2013; Koenig-Lewis et al., 2010; Rajaobelina, Brun & Élissar, 2013). Motivations to pursue a transition from face to face services included cost savings, improved operational efficiencies, global access, enhanced marketing and communications, and achieving a competitive advantage (Thulani et al., 2009). On the other hand, from the consumer's perspective internet banking advantages included: the convenience of 24/7 access from any location; reliable, efficient and higher quality service; as well as safety (physical) and security (Duc et al., 2018; Kaur & Kiran, 2015; Omar et al., 2011). Apart from e-banking, it was also noted that several of the proponents of CRM explored previously within RM, were done within the context of the financial services sector, especially banking. Moreover, a study conducted by Stone (2009) indicated that banks were among the leading businesses inclined to progress to

CRM 2.0. The banking sector therefore provides ample context for academic enquiry into ICT usage in marketing.

2.9.1 E-banking

Based on the search results informing this review, the infiltration of ICTs into the banking sector was captured by the concept of online / internet / e-banking. Themes in e-banking research mirrored those of its aggregate, e-commerce. Research on factors affecting consumer adoption was prevalent (Ewe, Yap & Lee, 2015; Hamakhan, 2020; Polasik & Wisniewski, 2009; Rajarathinam & Mangalam, 2013; Sanaz & Rabi, 2013), predicated upon lower than expected diffusion rates in several developed and developing countries (Bhardwaj & Aggarwal, 2016; Makanyeza, 2017; Ozdemir, Trott & Hoecht, 2008; Singh, 2014; Yu & Asgarkhani, 2015). Influence of Davis' (1989) TAM was even more pronounced in academic enquiries into the drivers of e-banking (for example, Chiou & Shen, 2012; Fatemeh Mohammad et al., 2020; Peral-Peral & Ramón-Jerónimo, 2015; Bhardwaj & Aggarwal, 2016; Ewe et al., 2015; Hajiyev & Chang, 2017; Kazi, 2013; Narteh, 2012; Ozdemir et al., 2008; Singh, 2014; Yu, et al., 2015). Accordingly, the perceived usefulness and perceived ease of use of e-banking has been studied as factors impacting upon the uptake of this distribution channel (Duc et al., 2018). Trust, and privacy and security were also underscored as being crucial to consumer acceptance of e-banking (Bhardwaj & Aggarwal, 2016; Hua, 2009; Hajiyev & Chang, 2017; Popoola & Arshad, 2015). Conversely, barriers to e-banking adoption were addressed as well, including institutional and user-related issues (Narteh, 2012).

Examination of demographics, particularly age (Arenas-Gaitán et al., 2015) and gender (Machogu & Okiko, 2015), as a factor impacting upon consumers' acceptance of e-banking also featured, in addition to culture and religion (Hajiyev & Chang, 2017; Sun, Goh, Fam & Yang, 2012). The observation was made that younger persons, 25 – 34 years age group, comprised the demographic segment making the most use of electronic financial services (Al-Soufi, Al-Ammary & Al-Qallaf, 2013; Dzogbenuku, 2013; Stone, 2009). This was an important insight for the development of marketing strategy. Further, psychographics such as consumers' propensity for innovation adoption was also explored with the resulting proposition that innovators and early adopters should be targeted primarily by e-banking marketers (Ozdemir et al., 2008). Consumer demographics and psychographics were investigated to provide further insights to aid

the profiling and segmentation efforts of marketing. Apart from adoption-related themes, customer satisfaction and service quality in online banking were examined revealing a strong relationship between the two variables (Kaur & Kiran, 2015; Okeke, Ezeh & Ugochukwu, 2015; Shirzad & Beikzad, 2014). Focusing on customer satisfaction, determinants of e-banking were studied using an adaptation of the TAM (Liébana-Cabanillas, Muñoz-Leiva, Sánchez-Fernández & Viedma-del Jesús, 2016). Further, it was demonstrated that internet banking problems related to customer support and web issues (for example, low speed and dropped connection) had a significant adverse effect on customer satisfaction (George & Kumar, 2015). Against the backdrop of this review a parallel was observed in both the themes and adoption drivers in e-banking and e-commerce.

2.10 Marketing in the banking sector

This section of the literature review addresses prominent themes raised in research conducted on marketing in the banking sector. Notably few articles on this subject surfaced in the search results. One paper based on a study of marketing executives in the USA examined the major challenges being experienced Hinshaw (2005). Two were identified: a lack of information on brand and marketing performance; and a lack of appreciation throughout the organisation for the value of the brand. The paucity of systems to deliver the required performance metrics resulted in marketing being perceived as a cost centre rather than a revenue generator. This line of thinking resonated with the argument in the literature on marketing's diminishing role in the organisation. The need for improvement in the "strategic and tactical marketing, brand and customer relation initiatives" was highlighted (Hinshaw, 2005, p.8).

As indicated earlier in this thesis, there was significant evidence to support the belief that NPD is essential for business growth and survival (Plewa et al., 2012). However, given the highly regulated nature of the banking industry, a study investigated how this type of controlled environment was impacting upon NPD in the United Kingdom. The findings indicated that a regulated environment was adversely impacting upon banks' capacity to fully adopt a market or customer-oriented approach to NPD (Slattery & Nellis, 2005). Further, banks' approach to innovation was noted to be more incremental than radical (Kok Lian, 2017). These findings are consistent with the conservatism usually associated with banks.

Leveraging RM for the competitive edge was another theme in the bank marketing literature. Given the importance of developing long term relationships with more profitable clients (Kahreh et al., 2011), research demonstrated the effectiveness of data mining techniques for enhanced customer segmentation and prediction of needs. This information led to the identification of customer retention opportunities through cross-selling and up-selling services (Salazar et al., 2007). Similarly, developing stronger customer relationships was asserted to reduce customer switching behaviour (Maicas Lopez et al., 2006). Themes in the area of marketing in the banking sector therefore revolved around challenges being faced by marketers of financial services, the impact of NPD in a highly regulated environment, and leveraging RM for enhanced profitability.

2.11 Critique and identification of gaps in the literature

This literature review has shown that thus far, research into the realm of ICTs in marketing was proliferated by the adoption theme, with emphasis on the initial adoption decision. Related themes such as technology acceptance, usage, continued usage, implementation and diffusion were raised in research, but they received less academic scrutiny. The main technology, or technological channel, investigated by scholars was e-BC. Hence, much research was conducted on the adoption of e-BC, especially with a consumer focus. The perspective of the firm and a country-level focus received less scholarly attention. Of those studies focusing on firms, few broached the incorporation of technologies into the marketing field from the stance of the owner of the function, that is, the marketer. Research alluded to reluctance and difficulties encountered by marketers in their efforts to adopt ICTs or incorporate technologies into their field (Brady et al., 2008). This issue warranted investigation on two counts. Firstly, marketers' work has a direct impact upon firm revenues and profitability, and secondly, ICT-leveraging has been noted to enhance marketing performance (Adnan et al., 2018; Barwise & Farley, 2005). Hence, reluctance towards ICT uptake by marketers could redound to adverse organisational performance. As such, it was necessary to obtain the viewpoint of marketers on this ICT integration issue which is affecting them directly.

Additionally, the trend of extant research was to focus on the adoption and usage of one technology, for example, e-BC or a cluster of related technologies, for example, social media, websites and email. However, this limited number of ICTs may not be

representative of the full technological exposure faced by marketers in their functional reality and practice. Therefore, providing insights into the range of technologies used by marketers presented a gap in the literature. Such knowledge would be instructive to the development of the discipline especially with the growing infiltration of technologies. Further, transcending the adoption theme which has been researched at length, the need to further explore how ICTs could be leveraged for enhanced marketing performance was underscored. Accordingly, the performance aspect of ICTs presented another area in the literature requiring greater research contributions.

In terms of debates, a major debate raised in the literature was the ceding of TM to its successor, RM. However, the CMP research debunked the notion of a mutually exclusive relationship between the two frameworks, demonstrating instead the respective paradigms being used in concert with each other in marketing practice. Further, this thesis posits that in examining the state of the art of the marketing discipline as defined by its growing incorporation of technology, dominant junctures in the literature -e-commerce and NPD-, actually represent developments related to "P" for place (distribution) and "P" for product, respectively. Similarly, e-MC is an extension of "P" for promotions (advertising). In other words, technological advancements in media capabilities have not detracted from the core relevance of the marketing mix and moreover, while TM has transcended time thus far, it would always be constrained or enabled by existing media capabilities.

Another fundamental debate raised in the literature was the prospect of marketing losing its status within the organisation due to inordinate focus on tactical, as opposed to strategic issues. As such, many academics emphasised the need for all marketing initiatives, particularly advertising, promotions and communications, to be developed within and guided by the organisation's strategic plan or overriding strategy, for effectiveness. Lack of strategic focus tended to impact adversely upon the desired performance. Notwithstanding this counsel, the literature did not clarify what constituted strategic versus tactical marketing, nor the use of ICT in strategic and tactical marketing. Hence, there was a knowledge gap in this area.

Apart from major debates raised, this literature review demonstrated that academic attention into the myriad ways in which technology was impacting upon marketing in a comprehensive way was in its nascent stage, making this a fecund topic for research.

Extant literature on the integration of ICTs into marketing revealed a dearth of empirical studies adopting the holistic perspective, whereby the impact of technology on the totality of marketing was examined. Rather, much of the academic work undertaken thus far was constricted to one specific intersection of ICT and marketing, for example, e-BC. Scholars flagged the transformative capabilities of ICTs and the importance of grasping its full potential impact upon the marketing discipline. As such, this study responded to the call to conduct more research on the use of ICTs within the full scope of marketing, seeking to contribute to filling the knowledge gap in this area.

The academic papers providing the most panoramic span on the topic at hand were those adopting one or more theoretical marketing paradigms, for example, TM, RM and the CMP framework. Notwithstanding, there was substantive consensus on the inadequacy of using the TM framework / the marketing mix as the sole paradigm to guide marketing practice in today's environment (Brodie et al., 2008; Ramsey et al., 2003). This claim was also refuted by the seminal CMP research series which demonstrated multiple marketing frameworks being employed in practice, only one of which was TM (Coviello et al., 2002). Moreover, it was the RM thread, as opposed to TM, that was apparent in the CRM and e-BC / e-MC research streams (Rajaobelina et al., 2013), significant junctures in the literature. Accordingly, the current research study sought to investigate the use of ICTs within the totality of marketing practice by exploring multiple marketing approaches identified in the CMP, that is, TM, RM (including database, network and interaction marketing) and e-marketing. Given the commercial banking context, as well as the prominence of services in the literature, the services marketing approach was also incorporated.

The CMP framework focused on how firms relate to their markets. It did not cover marketing functions per se including market research, segmentation, NPD among others. Efforts were made by few studies to shed light on the how ICTs could be leveraged to perform these functions (for example Ozdemir, et al., 2008; Rajaobelina et al., 2013). The present study attempted to address this void by exploring the use of ICTs in conducting other marketing functions such as market research, internal marketing, customer service, segmentation and related operations.

Regarding methodology, most studies were of a quantitative nature focusing on the adoption and diffusion of a specific ICT-based service (for example e-commerce), by

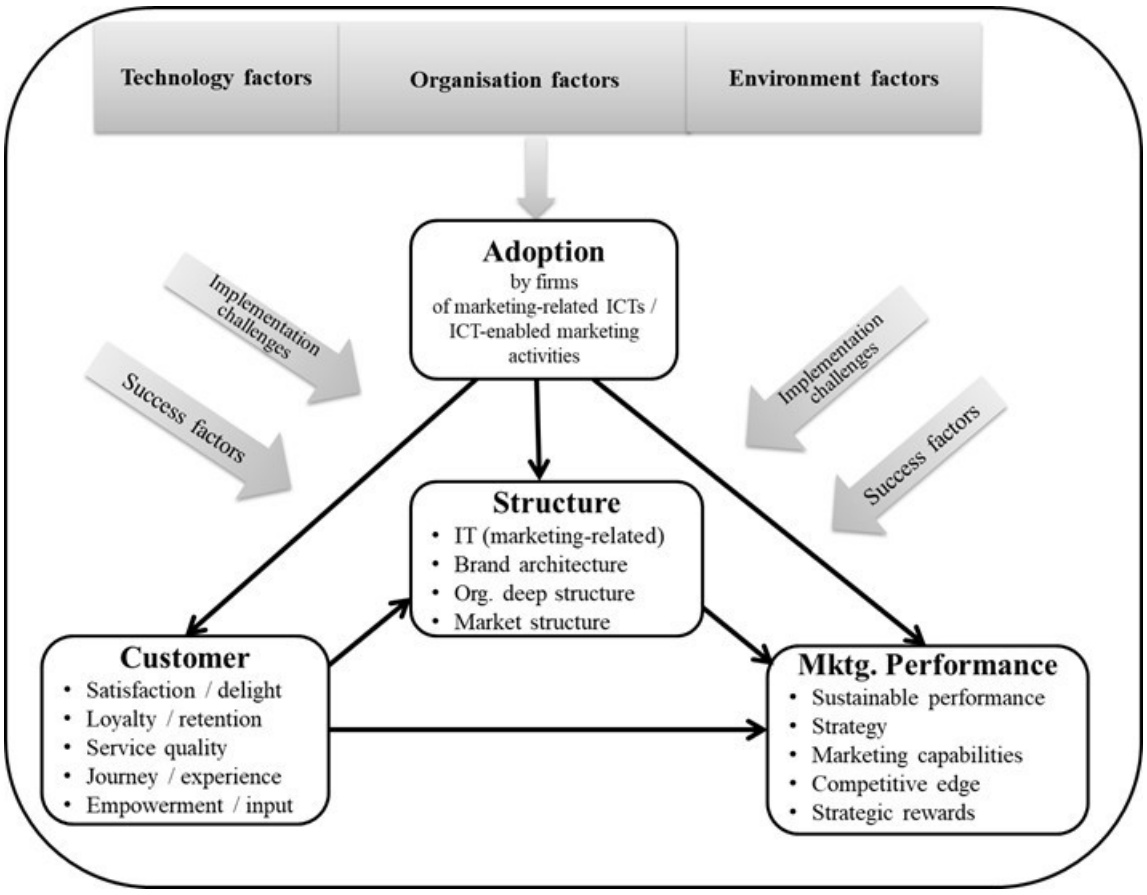
consumers and to a lesser extent firms. This research contributes to those papers which were fewer in number examining the usage of ICTs by firms via a qualitative approach, aimed at gathering insights into the viewpoints of marketing practitioners. Additionally, of the qualitative studies undertaken on the topic of ICTs in marketing, several employed the case study / multiple case methods. In contrast, this research was conducted on an entire sub-sector.

The review of gaps in the literature informed the development of the thesis. Hence, the current research centred on firm rather than consumer adoption. Further, it sought to address the knowledge gap of the range of ICTs being used by marketers in practice, rather than pre-suppose use of one or a cluster of related ICTs - the approach taken by most researchers. Additionally, it strived to transcend initial adoption decision which occupied the attention of most scholarly works, to examine the impact on performance which was another knowledge gap, as well as provide insights into underlying reasons for adoption, and issues encountered. Assuming the perspective of the marketer, using marketing as opposed to technological frameworks, by means of a qualitative approach, also augured for knowledge contribution in areas needing greater academic research.

2.12 Conceptual framework

In light of the above, a conceptual framework has been developed to depict the relationships between major themes which surfaced in the literature (Figure 2.3). These were adoption, customer-centric areas such as satisfaction and service quality, as well as performance. Structure was also incorporated because of its connection to these three areas, even though it was not prominent in the search articles. While several gaps were highlighted in this review, the conceptual framework provides a narrower focus by zeroing in to firm adoption and underscoring its impact on other major themes raised in the literature (customer, structure and performance), as well as their inter-relations. In essence the framework depicts technological, organisational and environmental factors influencing firm adoption of marketing-related ICTs / ICT-enabled marketing activities. ICT adoption in turn has a threefold impact on customer-centric areas, organisational structure and marketing performance. The moderating role of implementation challenges and success factors on these relationships was also reflected. Linkages between customer-centric areas and structure were also observed which in turn impacted marketing performance.

Figure 2.3: Conceptual framework of major themes



2.13 Summary

The key technical and subject matter concepts reviewed in this chapter included e-BC, e-marketing, INPAS, services marketing, RM and CRM, as well as ICT. They provided context for academic research conducted on the topic of ICTs in marketing. The main theme which surfaced in the literature was ICT adoption and related areas such as usage, stages, impact and challenges. Other themes comprised performance, customer-centric areas such as service quality, and structure. A conceptual framework depicting the inter-connectedness of the themes was developed. The review illustrated strong academic focus on consumer adoption, particularly in the e-BC context. Moreover, scant research has been conducted on ICT adoption drawing upon marketing frameworks. Rather, the majority applied technology adoption models such as the TAM, TOE and DOI. Therefore, an investigation into firm adoption and usage of the ICTs in marketing practice, taken from the marketers' viewpoint and applying TM and RM approaches, would contribute towards filling current knowledge gaps in the literature. Such is the proposal of this thesis.

Chapter 3: Methodology

This chapter aims to discuss the methodology employed for the research study. Methodology comprises the guiding principles or strategy for undertaking research (Crotty, 2015; Nayak & Singh, 2021). Encompassing not only methods, methodology also spans philosophical underpinnings and research design (Crotty, 2015; Neuman, 2014). Accordingly, the chapter commences by reviewing the tenets of the underlying philosophy used in this investigation, spanning its ontology, epistemology and axiology (Section 3.1). Next, a discussion on the research design and methods ensues, outlining all the procedures undertaken in the research process. This included a review of the data collection instruments, as well as the pilot study conducted to test their effectiveness. The research sample and the access strategy leading to participants' informed consent are also presented (Section 3.2). Data collection procedures for conducting the main study are detailed in Section 3.3 addressing the two methods used. The corresponding steps for the two types of data analysis undertaken are described in Section 3.4. Techniques for reliability and validity of the research are articulated in Section 3.5, while ethical considerations are addressed in Section 3.6. The chapter ends with a summary in Section 3.7.

3.1 Philosophy

A philosophical approach underpins all research, constituting the core thread tying methodological, methods and analytical choices (Creswell, 2013). Philosophy comprises three dimensions: ontology - the researcher's perspective on the nature of being and reality; epistemology - the knowledge composition of this reality, how it is obtained and what makes it valid (Bhaskar, 2008; Creswell, 2013; Crotty, 2015; Neuman, 2014); and thirdly, axiology - the value stance of the researcher (Creswell, 2013). This research drew upon realism ontology, supplemented by critical realism epistemology. A managerial axiology was taken in the interest of undertaking research to enhance the performance of marketing managers and other marketing practitioners. The three philosophical elements of this research on ICTs in marketing are hereby reviewed.

3.1.1 Tenets of realism and critical realism

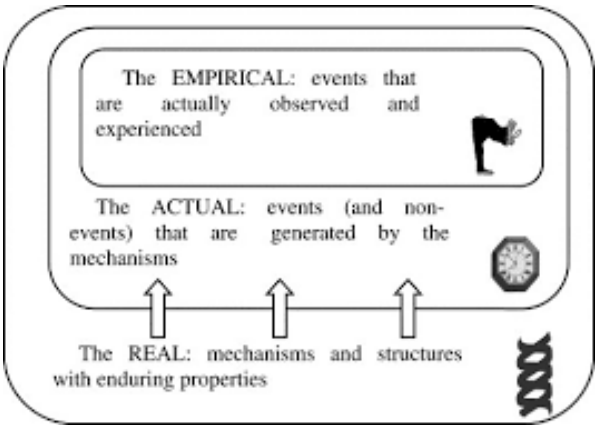
Regarding the realist ontological stance, the existence of one reality independent of and external to the mind is posited, (Clark, 2011; Eastwood, Jalaludin & Kemp, 2014), a view also shared by objectivists. However, realism ontology also acknowledges the importance of human agency in interpreting this reality, similar to the viewpoint of subjectivists (Saunders, Lewis, Thornhill & Bristow, 2019). Hence, realism is characterised by a blend of objectivism and subjectivism, seeking to mitigate the shortcomings of the two divergent ontological positions.

Pursuant to realism ontology, critical realism was the epistemological approach used in this investigation. Critical realism is positioned in the middle of the epistemological spectrum between the duality of positivism and interpretivism (Zachariadis, Scott & Barrett, 2013). Like realism, a forte of this branch of philosophy is its claim to combine the principles of the natural and the social sciences (Zachariadis, Scott & Barrett, 2010). The stance of critical realism was adopted as opposed to direct realism which espouses that the senses perceive the truth (Saunders et al., 2019), similar to the objectivists' viewpoint. In contrast, critical realists assert that the senses are fallible, thereby only permitting an approximation of the truth (Danermark, Exström, Jakobsen & Karlsson, 2002). So, for critical realists while reality has an objective existence, knowledge of it is "conceptually mediated", and since concepts are socially derived, "knowledge is fallible, but all knowledge is not equally fallible" (Danermark et al., 2002, pp. 10, 17).

Critical realism attributes great importance to ontology asserting that reality is complex, being structured, differentiated, stratified and changing (Bhaskar, 2008; Danermark et al., 2002). In critical realism reality comprises three domains; the empirical, the actual and the real (Bhaskar, 2008; Clark, 2011; Danermark et al., 2002). An illustration of these domains is provided in Figure 3.1. Critical realists assert that it is the real and deepest dimension of reality about which research should strive to generate knowledge. It comprises causal structures and generative mechanisms with enduring properties, which cannot be observed directly by the senses. Structures can be defined as "a set of internally related objects" and some examples include organisations, small groups, communication structures and social relations (Danermark et al., 2002, p. 47). Other examples falling into the real domain include the market, ideas, as well as concepts, and roles (Mingers, 2006). The structures and mechanisms in the real domain give rise to

events which occur (or do not occur) in the actual domain. The events which are actually observed comprise the empirical domain. Unlike in the natural sciences, structures within the social sciences do not remain the same, but rather tend to change over time because of the nature of agency, that is, the human element.

Figure 3.1: The Real, the Actual, the Empirical



Source: (Mingers, 2006, p. 23)

The third dimension of philosophy is axiology, which captures the value position of the research, addressing what is intrinsically worthwhile to the researcher (CES PHD Support Group, 2015; Hurst, 2019). Axiology also encompasses the role of values on the knowledge creation process (Biedenbach & Mattias, 2016). For this research, a managerial stance was taken as the study aimed to produce knowledge to enhance marketing management practice, ultimately redounding to the benefit of organisational performance. As mentioned in the Introduction, the author's experience in the manufacturing and tourism sectors enabled a shared understanding of the marketing domain with the participants. However, consistent with the objectivity requirement of critical realism, an etic perspective was taken due to the author being an outsider to the industry under review (Morris, Leung, Ames & Lickel, 1999), that is, commercial banking. The research process was therefore not influenced by predispositions or preconceptions of how things ought to be, a bias which could develop as a result of prior industry exposure. This neutrality allowed for a more objective perspective, while conducting the research, especially during data collection. Thus, realism ontology, critical realism epistemology and a managerial axiology summarise the philosophical underpinnings of this research.

3.1.2 Suitability of philosophical approach

Realism was selected as the most appropriate ontology for this study for several reasons. Firstly, its capacity to blend the ontological duality of objectivism and subjectivism is a core advantage of realism, filtering down to epistemological and methodological decisions. As such, realism facilitated an investigation into the topic at hand through the consideration of ICTs used in marketing as an external, objective reality which could be observed empirically and validated, while acknowledging the significance of marketers' perceptions of the technologies. Accordingly, philosophies subscribing to multiple realities including interpretivism, post-positivism, postmodernism and pragmatism were not considered suitable for this research.

Critical realism suited the study in its quest to transcend the generation of empirical data, to delve deeper into the underlying reasons for adoption and usage. The progressive effort to identify causal factors which cannot be observed empirically is fundamental to critical realism thinking (Bhaskar, 2008; Danermark et al., 2002). Moreover, unlike a purely positivist or interpretivist approach associated with either quantitative or qualitative measures, critical realism embraces multiple methods, including quantitative and qualitative methods (Zachariadis et al., 2010). The need for the richness of qualitative data was important for this study in order to effectively answer research objectives relative to underlying reasons for and challenges encountered in the adoption and usage of ICTs. A positivist approach was too reductionist (Danermark et al., 2002), limited to describing rather than explaining outcomes (Clark, 2011). Conversely, an interpretivist stance which is value-laden (Sultana, Hussain & Sheikh, 2019), was not appropriate to capture the array, frequency and trends of ICTs used in marketing - a core objective of this investigation. From a philosophical standpoint therefore, undertaking the research with either a positivist or an interpretivist perspective would not have effectively addressed all the objectives of this research.

Another reason for the suitability of this philosophical approach for the research study is that critical realism epistemology is harmonious with marketing (Easton, 2002). A duality akin to that of critical realism exists in the marketing discipline. Historically, marketing has drawn upon social / behavioural sciences (economics, sociology, anthropology, psychology) with emphasis also being placed on scientific method

(Tadajewski, 2014). As such, marketing emphasises empirical, measurable realities such as revenue, market share, advertising spend and profitability. On the other hand, it also values the significance of human input through consumer perception, behaviour and attitudes. As such, by its dual nature, the marketing discipline is compatible with critical realism. The compatibility between marketing and critical realism has also been argued by other scholars (for example Wang, 2019). Against the backdrop of this review, critical realism was selected as the most appropriate philosophical approach for undertaking this study.

3.2 Research design

Having outlined the underlying philosophy of this investigation and discussed its suitability, the research design and data collection methods are herein explained. Research design entails the master plan to answer the research questions and objectives of a study (Creswell, 2013). In this case, a qualitative multi-method approach was deemed most suitable to address the objectives. For some authors the multi-methods term denotes a mix of quantitative and qualitative methods and/or complementary methods of the same type (Collier & Elman, 2008). This research subscribes to the latter part of the definition, signifying multiple methods either quantitative or qualitative, a view shared by other academics (Anguera, Blanco-Villaseñor, Losada, Sánchez-Algarra & Onwuegbuzie, 2018; (Rejeb, Rejeb & Keogh, 2020). The application of multiple methods is typical in qualitative research (Creswell, 2013). Qualitative data are descriptive and narrative in form (Walliman, 2017), generated from categorical variables as opposed to the numeric variables characteristic of quantitative data (Australian Bureau of Statistics [ABOS], 2013). This investigation was qualitative in nature in its quest to firstly shed light on the ICTs being used by marketing managers and secondly, to understand their underlying reasons for choosing these ICTs.

In order to generate the desired qualitative data two data collection methods were utilised, executed in separate phases. In the first phase, a self-administered questionnaire was completed by each respondent. Though typically associated with quantitative research, questionnaires can also be useful in obtaining qualitative data (Walliman, 2017). In this study the questionnaire was an effective tool to gather data on the types of ICTs being used by the marketers involved in the study. The second phase of data collection entailed semi-structured, face-to-face interviews. Semi-structured interviews

are appropriate for exploratory and explanatory studies (Saunders et al., 2009), enabling the collection of rich, full qualitative data to address the research objectives related to underlying adoption reasons and concerns, in addition to perceptions of effectiveness and strategic value.

While the first phase of questionnaire data provided a preliminary indication of the scope of ICTs used by the marketing managers in their organisations, the second phase comprising semi-structured interviews was used to not only confirm major ICTs, but also probe deeper into underlying adoption reasons and the impact of using the technologies. Hence, there was a sequential relationship between the two phases, providing a logical process flow for the participants and the researcher. Additionally, this sequential approach afforded the researcher the benefit of familiarising herself with the range of ICTs being used by the participant prior to advancing to the interview discussion. Also, the approach afforded the researcher the opportunity to broach any unanswered questions in the questionnaire directly with the participant, thereby filling in data gaps. On the participants' side, filling out the questionnaire provided a practical example of the study's data requirements, thereby allaying possible concerns about the nature of the information they were being asked to share.

For the data analysis, a process of retroduction was applied. Retroduction involves moving simultaneously between deductive, inductive and abductive reasoning to make inferences between theory and data (Miller & Brewer, 2003). The term, coined by philosopher Charles Pierce, is also referred to as abduction (Pietarinen & Bellucci, 2014). Both analytical approaches are strongly linked to critical realism philosophy (Danermark et al., 2002).

3.2.1 The research instruments – questionnaires and semi-structured interviews

The main purpose of the questionnaire was to gather preliminary data on the range of ICTs being used by the banks in their marketing functions, as well as assess the managers' perspectives of the importance of these ICTs to their organisation's marketing strategy / efforts. An effort was also made to gauge the marketing approaches employed by the case banks, for example, traditional, relational or services-oriented,

since the literature alluded to linkages between marketing approaches and ICT usage (Brodie et al., 2008).

Based on information emanating from the literature review, complemented by the researcher's own experience in the marketing field, a listing of 40 ICTs was compiled. These spanned key areas such as: advertising and promotions; products and services; relationship marketing; market research; sales and channels of distribution; new product development; integrated, efficient operations; and internal marketing. Mobile applications were also included. Given that 40 ICTs is a relatively extensive number, compounded by the possibility that use of some of the ICTs may be regarded by organisations as confidential information, the questionnaire was the most efficient and effective tool to capture this type of data. It is noteworthy that the list of ICTs was not exhaustive since many more were mentioned in the literature. However, the technologies selected for this research were the ones assessed to be most applicable to commercial banks.

Within the questionnaire, a series of closed-ended, single and multiple response multiple choice questions were employed to gather data. Rating questions using a five point, pre-coded Likert scale in a matrix format were also incorporated to gauge the level of importance participants placed on the 40 ICTs corresponding to various marketing areas. Given its feature to record answers to several similar questions (Saunders et al., 2009), the matrix design was appropriate for this enquiry. These questions were supplemented by the sparing use of open-ended ones to capture any ICT options and other data not included in the lists within the questionnaire. A sample of the questionnaire instrument is provided in Appendix 1, as well as its linkage to theory and the literature (Appendix 1a).

The semi-structured interview was designed to be applied after the questionnaire. It comprised a list of open-ended questions developed to address the research objectives and themes. Its purpose was to gain insights into several areas regarding ICT adoption and usage. These included: underlying reasons for adoption; strategic use of ICTs; impact on marketing performance; challenges encountered; and perspectives on traditional versus new media; as well as e-business and e-banking. A semi-structured format was selected due to its flexibility to probe participant responses. Appendix 2

presents the listing of questions for the semi-structured interviews, and the linkage to theory and supporting literature (Appendix 2a).

3.2.2 The pilot study

Prior to conducting the main study, the questionnaire and interview questions were tested in a pilot study. This test drive complied with research best practice since it prompted respondent feedback to questions, design and layout, leading to refinement of the two instruments (Ismail, Kinchin & Edwards, 2018; Rowley, 2014).

Given eight commercial banks in Island-Nation (Bankers' Association of Trinidad and Tobago [BATT], 2017), a sample comprising two of the smaller banks was selected for the pilot study, however, one organisation declined participation. There were five participants from the pilot bank's marketing department. For efficiency, and in an effort not to pre-judge participants' technological receptiveness, the questionnaire was manually deployed. Based on responses and feedback, the questionnaire was fine-tuned to reduce completion time and improve the response rate. To ensure the effectiveness of both tools to gather responses pertinent to the research questions, the pilot study data were also analysed. Data from the questionnaires were analysed using SPSS software. Despite being a small sample, this software was used in anticipation of larger numbers for the main study. Descriptive statistics were generated. The interviews were analysed using Microsoft Excel given the small sample size. Patterns were sought based on similarities noted in responses.

During the exercise respondents from the pilot organisation demonstrated strong technology acceptance and therefore transitioning to an online version of the questionnaire for the main study seemed feasible. Once converted to Novi Survey -the approved online survey by ENU- the questionnaire was re-tested for proper functionality prior to deployment.

3.2.3 The research population and sample

Given a country population under 3 million (CSO, 2019) serviced by eight commercial banks (BATT, 2017) with branches nationwide, the decision to target all the commercial banks for this study was a feasible one. Of the eight banks, four are larger, leading

entities, each having a strong and enduring market presence. Combined, these four banks dominate the Island-Nation commercial banking landscape. All four of these banks participated in this research, together with two with a lesser presence on the local market, one of which was used for the pilot study. The two financial institutions which declined participation were both smaller scale operations in Island-Nation. One of them did not undertake much marketing activity and the other was experiencing difficulties.

In terms of interviewees, selection was based upon purposive sampling. Purposive sampling involves selection of candidates who could offer the most valuable data for the research (Bakkalbasioglu, 2020), and it is therefore suitable to smaller sample sizes. For this study, the criteria for selection of participants included: management of a function within the marketing department, exposure to the range of marketing functions, preferably three to five years of marketing experience, and likelihood of having significant insight and input into the ICTs being utilised in the various marketing areas.

3.2.4 Access strategies and informed consent

The access strategy employed for this research entailed identifying the head of the marketing department in each bank and leveraging personal contacts to reach the individual. The head-person was then sent an introductory email from the researcher comprising information contained in the informed consent form (Appendix 3). This direct approach was effective in overcoming any gatekeeper issues to thwart researcher access to the organisations (Azungah, 2019), particularly their senior managers. The email was followed up with a telephone call by the researcher to establish initial rapport with the potential participant, build credibility, clearly present the nature of the research, and address any questions or concerns. The researcher then sought consent for the organisation to participate in the study. In one case, the phone call was followed up with an introductory meeting to discuss all issues.

Following agreement to participate in the study, a discussion ensued with the head of marketing or the designate to identify other key persons leading various marketing areas in the organisation, and obtain their email addresses. Each intended participant was then contacted via the introductory email and follow-up call. Hence, gaining physical access to the organisation, seeking continuous access to each of the intended participants, and achieving cognitive access to the data required to answer the research questions,

complied with the three access levels required to conduct research successfully (Saunders et al., 2009).

3.3 Data collection

Subsequent to the pilot study, five banks participated in the main study including the four large banks which dominate the country's commercial banking landscape. There were 19 participants.

3.3.1 Online questionnaires

After obtaining informed consent verbally from the participants, the data collection process commenced with online application of the questionnaires which included written informed consent (Appendix 1). Using participant's personal (work) email address contributed to the reliability of the data through direct electronic distribution to, completion by, and return from the intended individual (Ali, Ciftci, Nanu, Cobanoglu & Ryu, 2021). Hence the independent response of the participant was likely and moreover, the risk of data contamination through input from external persons was circumvented (Saunders et al., 2009). This electronic distribution method is also considered more efficient and effective than manual and postal means (Ward, Clark, Zabriskie & Morris, 2014), in addition to being more professional and apt to the research objectives of this study. Due to Novi Survey's emphasis on data security (Novi Survey, 2020), this software was prescribed by ENU for deployment of the online questionnaires, as opposed to unsecure online survey tools. Respondents were given a 14-day window within which to complete the questionnaire.

The questionnaires were mainly deployed over a four and a half month period. The process was protracted by one of the bank's request for a non-disclosure agreement as a prerequisite to participation. Accordingly, some legal deliberations were necessary. Additionally, there were three respondent outlier cases in which a change in personnel, access challenges, and participant illness resulted in postponements of the interview. Completed questionnaires were received from all 19 participants. After the questionnaire phase, a date and time for the interview was coordinated.

3.3.2 Semi-structured interviews

The second phase of data collection comprised a semi-structured interview conducted by the researcher. Due to the flexibility of semi-structured interviews (Chu & Ke, 2017; McIntosh & Morse, 2015), participants were encouraged to supplement and elaborate upon their responses as necessary. Similarly, this feature enabled the researcher to probe participants' responses and request elaboration. Moreover, all respondents were informed of the purpose and duration of the interview in advance to avoid interviewee responses skewed by time constraints. The interviews were mainly conducted on site at the participating banks, in the respondent's office or a conference room free from distraction. All interviews were recorded using a digital audio-recorder, after prior consent of the respondent in accordance with best practice (Hughes, 2016). Despite being audio-recorded, the researcher also took notes during the interview as a precautionary measure against recording failure (Tracy, 2019), and also to indicate engagement and interest in the information being shared by the respondent.

Notwithstanding the intention to have all participants complete the questionnaire prior to being interviewed, in a few exceptional cases this did not occur. In these circumstances, the interview encounter was used by the researcher as an opportunity to remind the participant to fill out the online questionnaire. This strategy was effective.

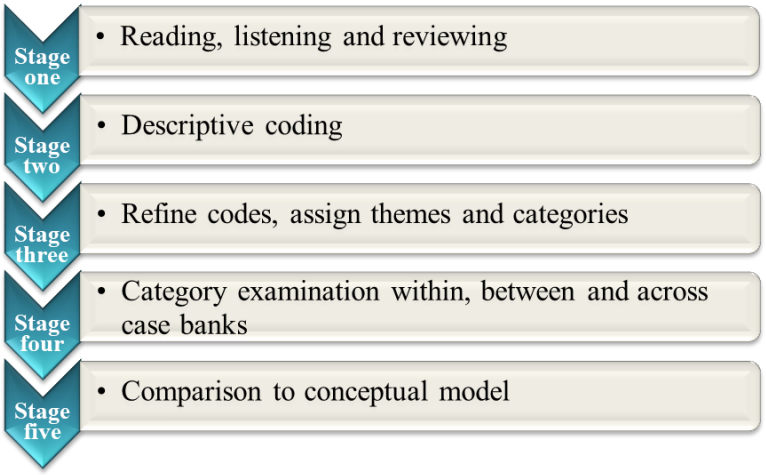
3.4 Data analysis

Due to the qualitative nature of this research as well as the small sample, it was feasible to use the analysis tools provided by Novi Survey to process the questionnaire data. Descriptive statistics were generated comprising frequency counts used to ascertain the range of ICTs employed by each bank. Frequency counts are appropriate for use in qualitative data (ABOS, 2013). Along with frequency counts, central tendency measures, particularly the mean, were used to evaluate the level of importance participants placed on the 40 ICTs being used across marketing areas.

Data gathered from the interviews were firstly transcribed verbatim to facilitate analysis. For this study, the principles articulated by Kipar (2019), Turner (2019) and Woodall (2016) were used to guide the data analysis process. The analysis was undertaken in a series of five stages which included: reading, listening and briefly

reviewing literature themes and study objectives; descriptive coding; refining codes, assigning themes and categories; category examination for patterns within, between and across case banks; and lastly, comparison to the conceptual framework. Figure 3.2 depicts this process. The transcription and analysis process are detailed accordingly.

Figure 3.2: Stages of data analysis process



3.4.1 Transcription of the interviews

Audio data recorded from the semi-structured interviews were author-transcribed verbatim into Microsoft Word, aided by a transcription feature of the digital recording device. Despite this automatic feature, transcription of each interview was time consuming since accuracy varied depending on the participant's accent and speaking pace. Consequently, recordings were slowed down to enable line-by-line verification and correction of text where necessary. This exercise required rewinding and listening to audio segments multiple times. After completing the transcription, a verification round was undertaken by listening to the audio at normal speed while reading the text and making minor adjustments where necessary. The tri-process of author-conducted interviews, author-transcription and author-verification, though tedious, effectively enabled data immersion -an important precursor to the analysis of interviews (Vaismoradi, Jones, Turunen & Snelgrove, 2016; Woodall, 2016).

3.4.2 Stage one – reading, listening and reviewing

The first stage of data analysis entailed a brief review of the conceptual framework depicting the core themes from the literature and their influencing factors. The study aim and objectives were also recapped. While these two sets of information provided broad guiding rails to steer the data analysis process, a concerted effort was made by the researcher to be open-minded and receptive to new themes. In this way the analysis would not be diminished by constraint to themes already established in the literature, a practice cautioned by academics (University of Huddersfield [UOH], 2020).

3.4.3 Stage two – descriptive coding

In qualitative analysis, codes are summative words or phrases assigned to units of written language or visual depictions to convey meaning (Saldaña, 2016). Coding is the process of ascribing codes. For this study, descriptive or manifest coding was undertaken, selecting terms representative of the topic from within the text itself (Saldaña, 2016; Turner, 2019). Descriptive coding aided the researcher's text linkage and recall during the analysis process. NVivo software facilitated the coding exercise and data management. Interviews were coded one after the other, in paragraphs. In some cases, multiple codes were assigned to the same passage. Each code comprised a summative phrase. The entire dataset of interviews was coded. The preliminary, open coding exercise generated 690 codes.

3.4.4 Stage three –refine codes, assign themes and categories

After open coding, codes were reviewed, cleaned up, merged and refined for consistency, as well as description suitability, yielding a lesser quantum of 456 items. Then, a combination of a deductive, inductive and abductive approach to content analysis was undertaken. This combined approach is common in qualitative data analysis practice (Miller & Brewer, 2003). Using a deductive approach, each code was assigned a broad thematic label, or an a priori theme guided by the literature and the research questions. In some cases, it was necessary to assign dual thematic labels where codes signaled a relationship between two broad themes. Subsequently, efforts were made to group similar codes into categories also guided by the literature and the research questions. Codes not sorted into an a priori theme and/or category were

reviewed for frequency of occurrence, similarity of meaning and emerging patterns, with a view to creating new themes and categories. This comprised the inductive approach. Also, moving between theory and the data set to make inferences about unusual findings added the abductive element to the analysis process (Timmermans, & Tavory, 2012). Table 3.1 provides an example of coding, and the assignment of thematic and category labels. Annotations and memos were written during the exercise to track the author's thought processes and insights as they occurred, auguring for a transparent analytical process.

Table 3.1: Example of coding and thematic and category labels

Interview excerpt	**Code**	**Thematic label**	**Category label**
Question: What ICT tools is your organization using? Response: "So we are part of a matrix organization, so there are several systems that we would kind of rely on, that are sort of systemic."	affected by organizational structure	adoption	driver / influencer

3.4.5 Step four – category examination within, between and across case banks

Having ascribed the codes to a theme and a category, efforts were made to examine the scope of each category relative to its incidence among participants from the various case banks. This was done by reviewing the extent to which a category was confined to one bank, was evident between two banks, or alternatively, was an occurrence across several banks. Where applicable, any salient similarities or differences in the characteristics of the banks were noted.

3.4.6 Step five – comparison to conceptual framework

The last analytical step was to review the relationship between the major themes emanating from the data to determine the extent to which they were consistent with the conceptual framework developed from the literature and if there were any incongruities. Table 3.2 presents an overview of the five stages of the data analysis process for the interviews.

Table 3.2: Overview of interview analysis stages

Interview analysis stages	
Stage	Steps
Stage 1: Reading, listening and reviewing	• Read interview transcripts while listening to the audio • Briefly review conceptual model depicting the three emergent themes from the literature and their influencing factors • Briefly review study aim and objectives
Stage 2: Descriptive coding	• Conduct open coding by assigning summative, topic-representative codes to transcript paragraphs, selecting terms from within the text.
Stage 3: Refine codes, assign themes and categories	• Review preliminary coding list, cleaning up, merging and refining as necessary to ensure consistent and suitable descriptions • Assign a priori thematic and category labels to codes where applicable • Group similar codes into categories • Review non-assigned codes for similarities, frequency of occurrence and emerging patterns. • Group similar codes and assign new categories. • Review new categories and develop new theme where applicable.
Stage 4: Category examination within, between and across case banks	• Review codes within each category to determine its scope by examining incidence within one organization only, between two, or across several of the banks.
Stage 5: Comparison to conceptual model	• Compare the analytical findings to the conceptual model generated from the literature for similarities and variances.

3.5 Reliability and validity

Reliability and validity contribute to rigour in qualitative research (Morse, Barrett, Mayan, Olson & Spiers, 2002). Reliability signifies consistency in the application of procedures and the findings they generate (Rose & Johnson, 2020), whereas validity addresses the truthfulness of the findings (Noble & Smith, 2015). Several techniques were employed for reliability and validity across the research design, data collection and data analysis phases of the study.

Reliability and validity were incorporated into the research design in several ways. Multi-methods enabled triangulation, auguring for greater robustness and more convincing results as compared to a mono-method approach (Davis, Golicic & Boerstler, 2011). Moreover, crafting instrument questions to address the research objectives and themes also ensured data validity. Questionnaire design elements contributing to reliability and validity included a clear layout, length contained within four A4 pages and the use of closed-ended questions for easier completion. Also, "not applicable / don't know" options were incorporated to discourage guessing, leading to uninformed responses and detracting from data reliability (Greenfield & Greener, 2016). For the interview, standardised, open-ended questions provided structure, while encouraging unrestricted responses (Adhabi & Anozie, 2017), thereby contributing to the reliability of the interview data. Testing the instruments in a pilot study and refining questions accordingly to enhance participants' understanding, comprised another strategy to improve reliability and validity of the data obtained. Other design techniques for enhanced reliability and validity included the high level of representation from Island-Nation's commercial banks, combined with purposive sampling of respondents best suited to answer the research questions.

In the data collection phase, the access strategy, gaining informed consent, as well as the administration and execution process for the questionnaires and interviews were factors contributing to high response rates and the collection of reliable and valid data. During the interviews, attention was paid by the researcher to details such as appropriate attire, location and the interview-preamble, in order to build credibility. Also, using a non-biased approach to questioning, listening to and summarising responses, in addition to time line adherence, were techniques employed by the researcher, advocated to

enhance data reliability and validity (see Creswell, 2013). Combined, these approaches encouraged participant openness and candour.

For analysis, using software aided the accuracy and reliability of the analysis of the questionnaires. For the interviews, techniques such as transcription and listening to high quality audio-recordings augured for a more accurate interpretation of participants' responses (Hughes, 2016). Additionally, during the coding and refinement stages efforts were made to ensure that descriptive codes were consistently developed for reliability. Further, a concerted effort was made to afford participants equal treatment in reporting the findings. Notwithstanding, there were instances where the participant's contribution warranted more in-depth focus in the interest of conducting a thorough and robust analysis. The preparation of a continuing professional development (CPD) portfolio tracking decision-making throughout this thesis was another technique used to promote transparency of the analysis in this research.

3.6 Ethical considerations

In qualitative research, ethical issues may arise at all stages including design, access, data collection, analysis, reporting and publishing (Creswell, 2013; Dooly, Moore & Vallejo, 2017). At the core of proper ethical conduct is the need for the researcher to respect and refrain from encroaching upon the rights of others throughout the research process, including data storage (Icy, Elexpuru-Albizuri & Villardón-Gallego, 2019). Due to the nature of their business, financial organisations are renowned for being reserved, guarded and reticent towards information sharing. Since this research was based upon primary data solicited from financial organisations and their representatives, several ethical issues arose, particularly related to confidentiality. A discussion follows on how these issues were handled in the research process.

An important measure to ensure proper ethical conduct in undertaking this research was obtaining approval from the university's ethics committee prior to engaging in primary data collection for the pilot and main study. Requirements for ethics approval included the use of encrypted drives for data storage, and confirmation that the researcher had a strategy in place to address any adverse reaction arising from the interview, for example technological anxiety (Ewe et al., 2015). Obtaining participant's informed consent before inclusion in the study was a fundamental ethical prerequisite. Anonymity and

confidentiality were important assurances given to respondents in securing their participation. These criteria were observed by the researcher throughout the data collection process. Further, in the analysis, the banks were assigned pseudo names and respondents were numbered. All data storage and analysis were done on encrypted drives. Moreover, to ensure transparency the CPD dossier was developed to track and systematically trace all decisions taken throughout the research process, paying particular attention to the analysis.

3.7 Summary

This chapter outlined the study's methodology including its underlying philosophy, and research design or master plan for framing and executing the research. Accordingly, realism ontology supported by critical realism epistemology and a managerial axiology provided philosophical underpinnings. Central to the research design was the use of qualitative multi-methods comprising online, self-administered questionnaires and face-to-face, semi-structured interviews. The rationale for selecting the research population of commercial banks and the use of purposive sampling for participant selection were also discussed, along with the access strategy and approach to obtaining informed consent.

The data generated from the two methods were analysed with the assistance of appropriate software, that is, Novi Survey and NVivo computer-assisted qualitative data analysis software (CAQDAS). Descriptive statistics supported analysis of the questionnaire data, while a five-stage process using the approach of retroduction was employed to analyse interview transcripts. Techniques to ensure reliability and validity were incorporated into the research design, data collection and analysis, including testing the methods in a pilot study. The chapter concluded with a discussion on the ethical considerations of this research.

Chapter 4: Data analysis and findings

The purpose of this chapter is to highlight the analysis and findings of the data gathered from the two data collection methods employed in this research: online questionnaires and semi-structured interviews. There were 19 participants from five case banks who participated in the questionnaire and interview segments of data collection. This chapter starts by reviewing the commercial banks which participated in the research, their marketing departments, as well as respondents (Section 4.1). A comparative overview is presented in Section 4.2 based on information generated from the questionnaires. It highlights key elements of the marketing context within which ICTs were incorporated into the organisations' marketing, particularly their marketing approaches and focus on consumer and business markets. Additionally, Section 4.2 underscores the range of ICTs being used to support core marketing functions, as well as their importance and effectiveness. This information is supplemented by an array of ICTs used by the case banks in Section 4.3, which were hitherto undisclosed.

The chapter progresses to a discussion on two of the overarching themes in the interview data: adoption and performance. Under adoption, sub-themes included underlying reasons which motivated adoption of the various ICTs, the impact on organisational structure, adoption as a process, as well as barriers and challenges inhibiting adoption. These are addressed in Sections 4.4 - 4.7. A review of performance sub-themes ensues in Sections 4.8 – 4.11, spanning performance measurement, impact and optimisation of ICTs adopted, in addition to barriers and challenges to performance. The theme of change and related sub-themes is presented in Section 4.12. The chapter ends with a summary of the data analysis and findings in Section 4.13.

4.1 Overview of case banks, marketing department and respondents

The five case banks comprised two local organisations and two North-American headquartered, the four of which dominate the Island-Nation market. The fifth bank has regional headquarters within the Caribbean with a lesser presence on the local market. To preserve the confidentiality and anonymity of the information gathered the country was given the pseudonym of Island-Nation. Moreover, each bank was also assigned a pseudonym: Beta, Delta, Gamma, Omega and Sigma.

In terms of the marketing structure, the scope of functions handled by the respective marketing departments varied. For example, functions such as product development / management, communications, analytics, sales, and customer service, did not all reside within the marketing department. Instead, these areas often fell under the purview of another internal or external department, depending on the support of foreign resources. Consequently, the size and structure of the marketing department, as well as the number of managers was larger in the banks where more functions were undertaken, and notably smaller with the incidence of support and direction from external headquarters, either regional or North-American. Table 4.1 presents a breakdown of the 19 participants in this study broken down by bank.

Table 4.1: Breakdown of participants

	Name	**No. of participants**
1.	Beta Bank	1 participant
2.	Delta Bank	7 participants
3.	Gamma Bank	1 participant
4.	Omega Bank	4 participants
5.	Sigma Bank	6 participants
	Total	19 participants

Participants comprised mainly senior managers and marketing managers responsible for various marketing functions (Table 4.2). One lead person was also included in the instance where a managerial position was vacant. In terms of demographics, there were slightly more female than male respondents, and the age of the vast majority fell between 35 – 54 years. Regarding education, there was a high incidence of undergraduate and postgraduate degrees in the purposive sample. A few persons had also underdone training in digital marketing. In terms of experience, most participants had between 3 – 15 years of marketing exposure, though some had upwards of 20.

Table 4.2: Demographic overview of participants

Demographic	Categories	Number	% of total
Gender	Female	11	58%
	Male	8	42%
Age group	18-24 years	0	-
	25-34 years	3	16%
	35-44 years	4	21%
	45-54 years	8	42%
	55-64 years	3	16%
	65 and over	0	-
	Not answered	1	5%
Position	Marketing manager	6	32%
	Manager of a marketing-related function	6	32%
	Regional director	1	5%
	Senior manager	5	26%
	Marketing officer	1	5%
Education / Background	Bachelor's degree (marketing or communications)	8	42%
	MBA or other Masters	6	32%
	Digital marketing training	3	16%
	Qualifications in a financial area	4	21%
	IT background	1	5%
	Not answered	5	26%
Number of years in a marketing position	Less than 3 years: 0	0	-
	3 – 5 years: 6	6	32%
	6 – 10 years: 1	1	5%
	11 – 15 years: 8	8	42%
	16 – 20 years: 1	1	5%
	21 – 25 years: 2	2	11%
	Not answered: 1	1	5%

The participants' marketing background was diverse. Several were career marketers with prior experience in fast moving consumer goods (FMCG) and retail, spanning industries such as household goods, tobacco and telecommunications. Others had worked for advertising agencies and therefore were particularly knowledgeable about marketing communications. Another group had either worked in marketing at a competitor bank, or another organisation in the financial sector. Interestingly, some

respondents came from a non-marketing background such as IT and accounting. It is noteworthy that a few participants had also been exposed to working for multi-national firms. Lastly, some respondents had spent the majority of their career at a case bank, being exposed to different areas. Accordingly, the extent and diversity of participants' marketing experience augured well for the credibility of findings generated in the study.

4.2 Comparative overview

This section addresses the data gathered from the online questionnaire completed by each of the 19 participants. There was a 100% response rate to the questionnaire from the purposive sample taken, signifying effectiveness of the design, presentation, covering letter and access strategies employed (Ali et al., 2021). However, there were a few instances of unanswered open-ended questions. In these circumstances, the interview forum was effective in obtaining the information. The main purpose of the questionnaire was to outline the marketing context of each organisation, and further, identify and assess the major ICTs being utilised by the marketing departments of the five banks. The data were collated by bank rather than by individual respondent in order to circumvent weighting discrepancies attributed to the varying number of participants from each institution. Mean ratings were taken for Delta, Omega and Sigma Banks, given multiple respondents.

In this overview the data are presented in accordance with the eight areas examined in the questionnaire, expressed by 24 questions. These areas commence with the scope of marketing management approaches being used by each bank, as well as its market focus on retail and the consumer versus B2B (Questions 2 & 3). Subsequently, the use and importance ratings of the ICTs supporting a range of marketing functions are examined (Questions 4 – 12). These functions included: advertising and promotions; products and services; relationship marketing; market research; distribution; new product development and innovation; integrated and efficient operations; as well as internal marketing. Afterwards, responses to Questions 13 – 18 are presented, outlining respondents' feedback on miscellaneous items such as the use of other ICTs in marketing not listed in the questionnaire, those of strategic importance, the effectiveness of the ICTs, as well as the department(s) responsible for incorporating ICTs into marketing. A copy of the questionnaire is provided in Appendix 1. Participants' responses to the online questionnaire are hereby discussed.

4.2.1 Marketing approaches and market focus

From the responses gathered in the online questionnaire, all case banks with the exception of Beta were employing a blend of transaction, relationship, database, interaction, network and services marketing in their approach to managing the marketing function (Table 4.3). However, with regard to transaction marketing, Gamma and Sigma Banks seemed to place less emphasis on mass market targeting to generate sales volume. While all banks indicated usage of database technology, only Gamma Bank signalled its use for the four major functions identified: gathering individual customer information; sending personalised communications to individual customers; conducting market analyses and gaining market insights; and to inform marketing strategy such as segmentation and new product development. Responses from the other four banks revealed less usage of database technology for market analysis, insights and / or strategy development. Hence, Gamma Bank appeared to be leveraging database technology the most.

The adoption of a relationship marketing approach was almost unanimous across all participants. Likewise, there was a significant indication of the use of interaction marketing by all banks, whereby the internet and other interactive technologies were being leveraged to create and mediate dialogue with customers. In terms of network marketing, while all the banks demonstrated use of this marketing approach, there was less focus on it by Omega Bank. With regard to services marketing, only Delta, Gamma and Sigma Banks indicated that the three elements of people, physical evidence and process were fundamental to the banks' marketing strategy.

Table 4.3: Comparison of marketing management approaches

Question 2: Which of the following describe(s) your organisation's approach to managing its marketing function? Select ALL options applicable. (No. of participants : 19)										
Answer	Beta		Delta		Gamma		Omega		Sigma	
	Count	%	Count	%	Count	%	Count	%	Count	%
This organisation uses elements of the marketing mix (product, price, place, promotions) as the basis for attracting and satisfying potential customers. (TM)	0	0%	6	86%	1	100%	4	100%	5	83%
This organisation's advertising & promotions efforts target a mass market to generate sales volumes. (TM)	0	0%	7	100%	0	0%	3	75%	3	50%
This organisation uses database technology in order to gather information about individual customers. (DM)	1	100%	5	71%	1	100%	4	100%	6	100%
Using information gathered from database technology, this organisation sends personalised communications to individual customers. (DM)	1	100%	6	86%	1	100%	3	75%	6	100%
This organisation uses database technology to conduct market analyses and gain market insights. (DM)	0	0%	4	57%	1	100%	2	50%	4	67%
This organisation uses information gathered from database technology to inform marketing strategy such as segmentation, new product development etc. (DM)	1	100%	4	57%	1	100%	3	75%	4	67%
This organisation's marketing efforts are focused on building long-term, profitable relationships with individual customers. (RM)	1	100%	7	100%	1	100%	4	100%	5	83%
This organisation uses the internet and other interactive technologies to create and mediate dialogue with customers. (IM)	1	100%	6	86%	1	100%	4	100%	6	100%
This companycommits resources to obtaining customers across our organisation and among a network of businesses. (NM)	1	100%	6	86%	1	100%	1	25%	6	100%
This organisation focuses on the elements of people (employees, customers), physical evidence (facility, uniforms, equipment) and processes, as fundamental to its marketing strategy. (SM)	0	0%	6	86%	1	100%	1	25%	5	83%
Not answered	0	0%	0	0%	0	0%	0	0%	0	0%

Note:

TM – Traditional Marketing
DM – Database Marketing
RM – Relationship Marketing
IM – Interaction Marketing
NM – Network Marketing
SM – Services Marketing

The five case banks showed either equal focus on the consumer and B2B markets, or a heavy skew towards consumers (Table 4.4).

Table 4.4: Comparison of focus on consumer versus business markets

Question 3: Many organisations engage in the consumer market, as well as the business to business (B2B) market. Which of the following statements best represents your organisation's positioning between these two? (No. of participants: 19)										
Answer	Beta		Delta		Gamma		Omega		Sigma	
	Count	%	Count	%	Count	%	Count	%	Count	%
My organisation's business is solely focused on the consumer market.	0	0%	0	0%	0	0%	0	0%	0	0%
My organisation's business is solely focused on the B2B market.	0	0%	0	0%	0	0%	0	0%	0	0%
My organisation's business is equally focused on the consumer and B2B markets.	1	100%	3	43%	0	0%	3	75%	4	67%
My organisation's business is more heavily skewed towards the consumer market.	0	0%	4	57%	1	100%	1	25%	2	33%
My organisation's business is more heavily skewed towards the B2B market.	0	0%	0	0%	0	0%	0	0%	0	0%
Not answered	0	0%	0	0%	0	0%	0	0%	0	0%

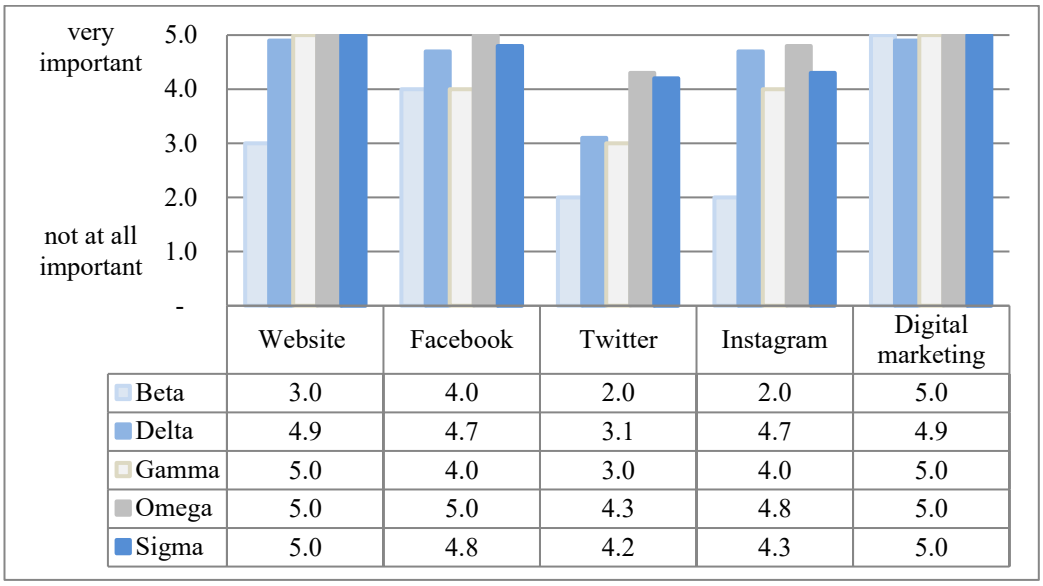
4.2.2 ICTs in marketing – use, importance and effectiveness

This section discusses the five banks' responses to Questions 4 – 18 in the online questionnaire, starting with importance ratings for ICTs used in advertising and promotions, banking products and services, as well as other marketing / marketing-related areas (Questions 4 – 12).

Regarding technologies and platforms used for advertising and promotions, the data showed that the five banks were availing themselves of the full range of ICTs in the area of advertising and promotions. Some commonalities in their usage were observed. Of the range of 20 types of media identified, digital marketing stood out as being very important to the marketing efforts / strategy of all case banks (Figure 4.1a). Focusing on social media, Facebook received the highest importance scores, followed by Instagram, and then Twitter. The website was also rated as very important (scores of 5) by four of them, with the exception of Beta Bank which gave the website a neutral importance rating of 3. Rather than just being informational, banks' websites were also used for

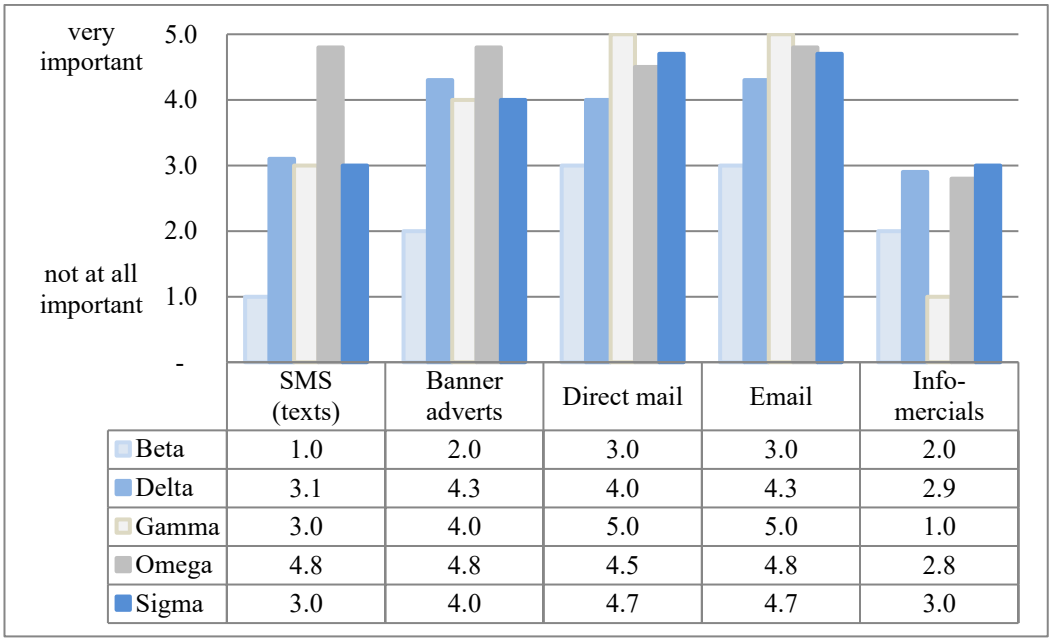
communication purposes. Email and direct mail were assessed as being quite important by all banks except Beta, as indicated by scores ranging from 4.0 to 5.0 (Figure 4.1b). Similarly, Google analytics and search engines also received high importance ratings by the banks (Figure 4.1c).

Figure 4.1a: Comparative ratings - ICTs in advertising & promotions



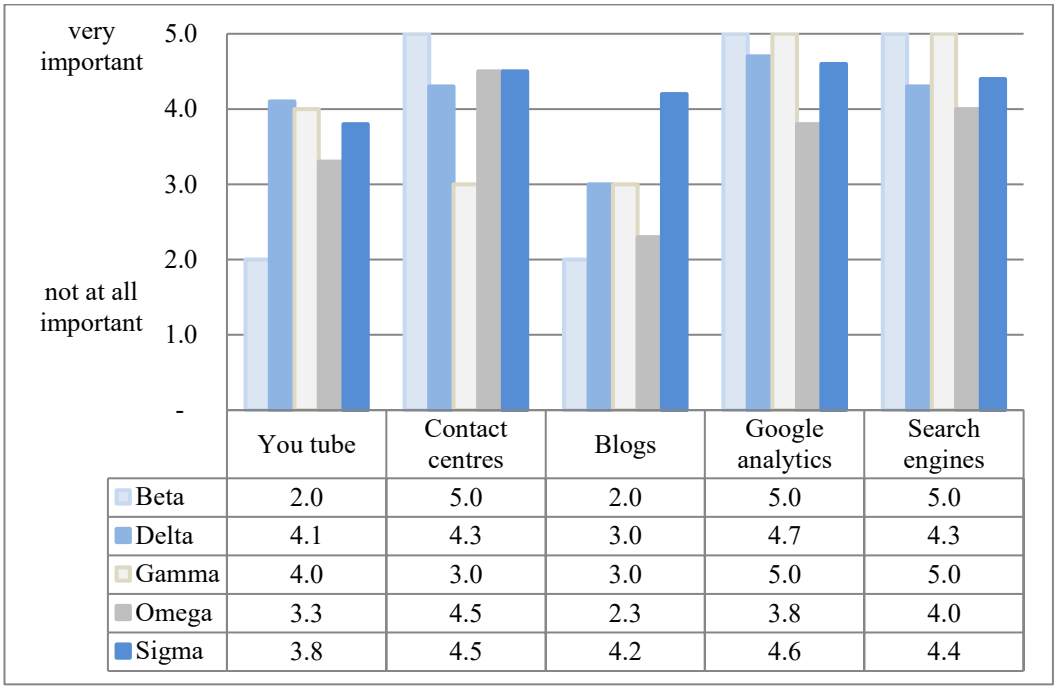
	Website	Facebook	Twitter	Instagram	Digital marketing
Beta	3.0	4.0	2.0	2.0	5.0
Delta	4.9	4.7	3.1	4.7	4.9
Gamma	5.0	4.0	3.0	4.0	5.0
Omega	5.0	5.0	4.3	4.8	5.0
Sigma	5.0	4.8	4.2	4.3	5.0

Figure 4.1 b Comparative ratings - ICTs in advertising & promotions



	SMS (texts)	Banner adverts	Direct mail	Email	Info-mercials
Beta	1.0	2.0	3.0	3.0	2.0
Delta	3.1	4.3	4.0	4.3	2.9
Gamma	3.0	4.0	5.0	5.0	1.0
Omega	4.8	4.8	4.5	4.8	2.8
Sigma	3.0	4.0	4.7	4.7	3.0

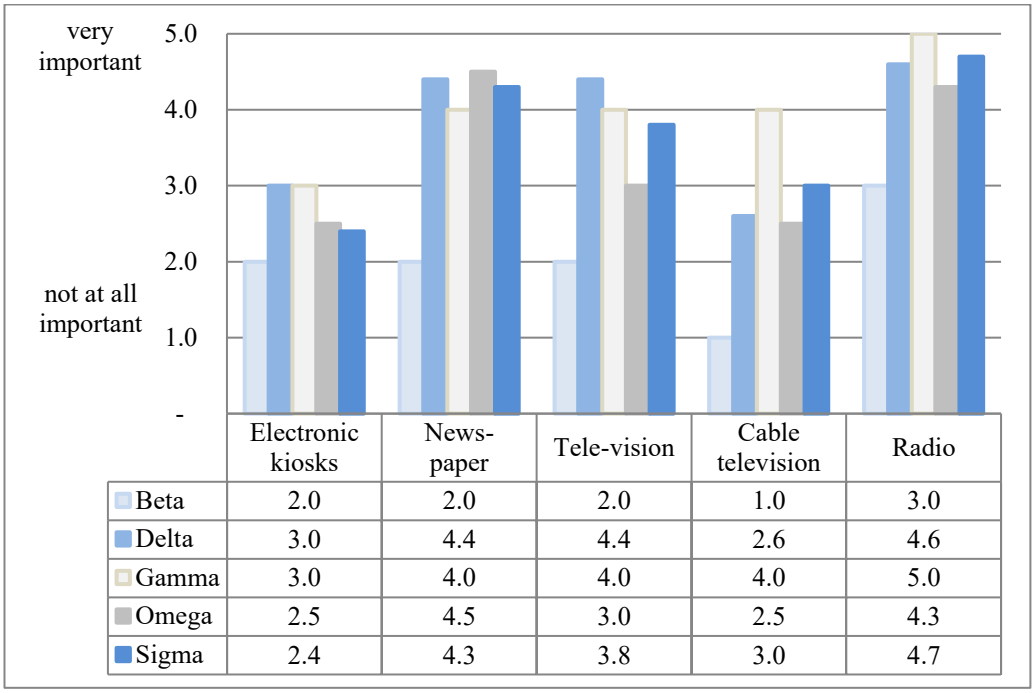
Figure 4.1c Comparative ratings - ICTs in advertising & promotions



	You tube	Contact centres	Blogs	Google analytics	Search engines
Beta	2.0	5.0	2.0	5.0	5.0
Delta	4.1	4.3	3.0	4.7	4.3
Gamma	4.0	3.0	3.0	5.0	5.0
Omega	3.3	4.5	2.3	3.8	4.0
Sigma	3.8	4.5	4.2	4.6	4.4

Traditional media received relatively lower scores overall than digital marketing and the website, but were still assessed as being important, with scores trending around 4.0 (Figure 4.1d). Feedback on traditional media demonstrated the highest ratings for radio by most of the banks, with the exception of Omega Bank which rated newspapers slightly higher. After radio, newspapers were the second choice, while television was third. It was noted that of the five organisations, Beta Bank placed the lowest importance on all four types of traditional media. Delta and Gamma Banks gave the highest ratings to television, with the latter also giving cable television its highest rating of 4.0.

Figure 4.1d Comparative ratings - ICTs in advertising & promotions

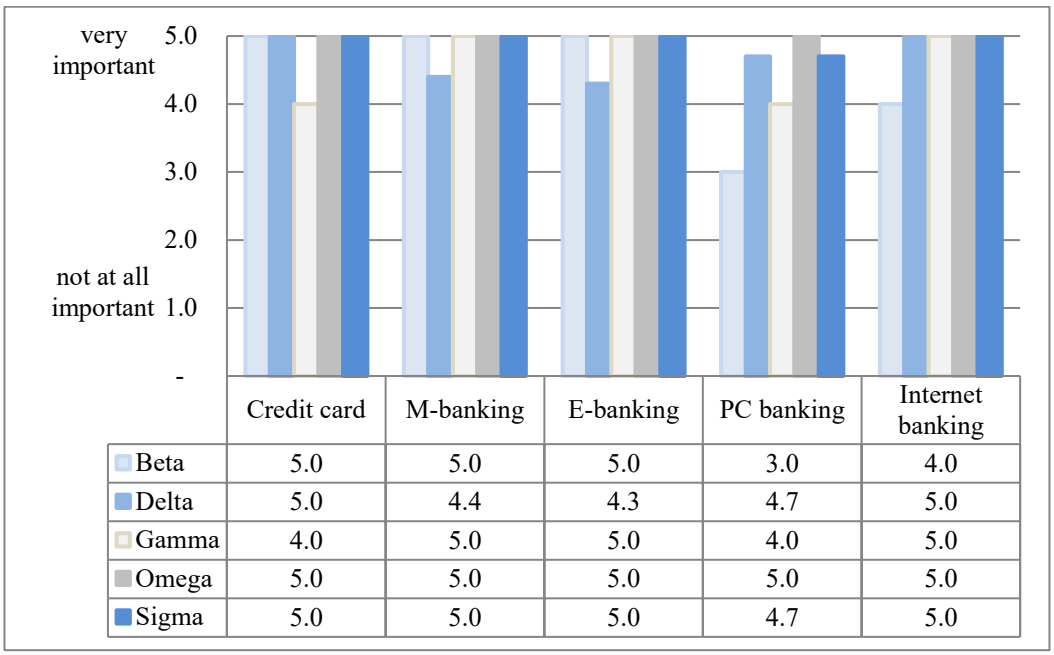


	Electronic kiosks	News-paper	Tele-vision	Cable television	Radio
Beta	2.0	2.0	2.0	1.0	3.0
Delta	3.0	4.4	4.4	2.6	4.6
Gamma	3.0	4.0	4.0	4.0	5.0
Omega	2.5	4.5	3.0	2.5	4.3
Sigma	2.4	4.3	3.8	3.0	4.7

Generally speaking, infomercials, blogs, SMS messaging and electronic kiosks received the lowest ratings of 3.0 and below by the respondents, with the exception of Omega Bank which rated SMS messaging quite high on the importance scale, and Sigma Bank which gave blogs a rating exceeding 4.0.

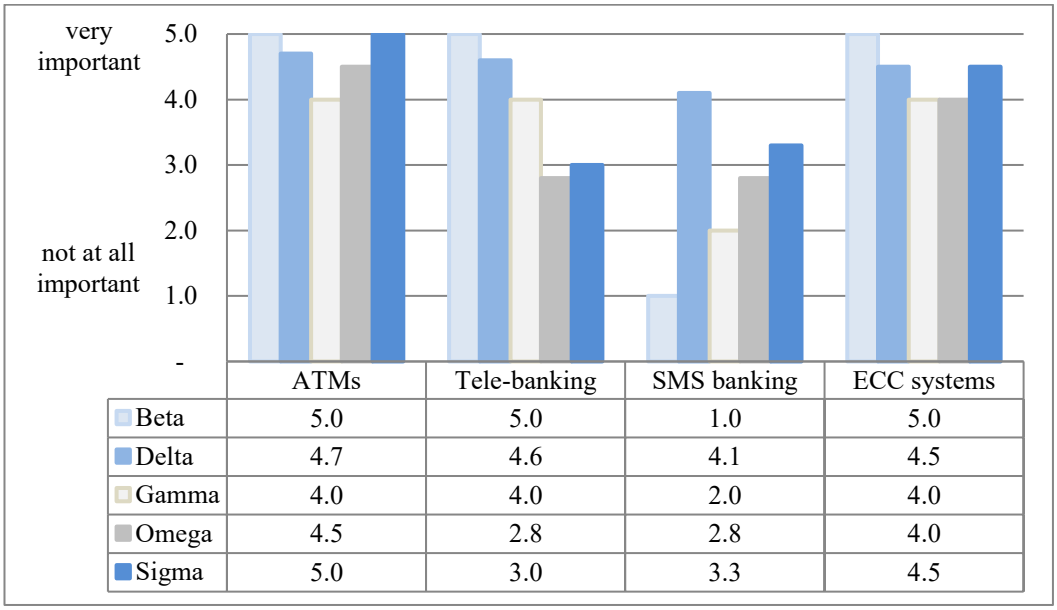
In the area of products and services, mobile banking, e-banking, internet banking and credit cards received the highest importance ratings by the five banks (Figure 4.2a). These were followed by ATMs, Electronic Cheque Clearing (ECC) houses and to a lesser extent, personal computer banking. Responses to telephone banking were diverse spanning from 2.8 to 5.0, whereas SMS banking received the lowest importance ratings overall (Figure 4.2b).

Figure 4.2a: Comparative ratings - ICTs in products & services



	Credit card	M-banking	E-banking	PC banking	Internet banking
Beta	5.0	5.0	5.0	3.0	4.0
Delta	5.0	4.4	4.3	4.7	5.0
Gamma	4.0	5.0	5.0	4.0	5.0
Omega	5.0	5.0	5.0	5.0	5.0
Sigma	5.0	5.0	5.0	4.7	5.0

Figure 4.2b Comparative ratings - ICTs in products & services

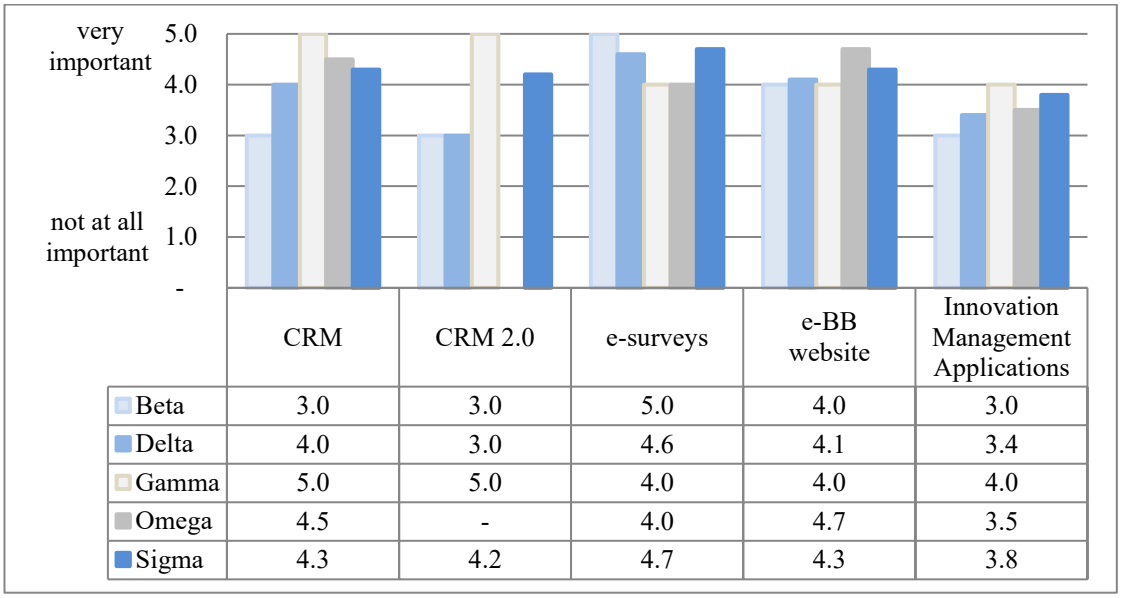


	ATMs	Tele-banking	SMS banking	ECC systems
Beta	5.0	5.0	1.0	5.0
Delta	4.7	4.6	4.1	4.5
Gamma	4.0	4.0	2.0	4.0
Omega	4.5	2.8	2.8	4.0
Sigma	5.0	3.0	3.3	4.5

Figures 4.3a and 4.3b provide an amalgamation of importance ratings for ICTs being used in other areas of marketing. Regarding the importance of CRM software, the responses were quite varied with Gamma Bank indicating that both CRM and its 2.0 version were very important (Figure 4.3a). Respondents from Omega, Sigma and Delta Banks opined that CRM technology was important, whereas Beta Bank was neutral on the issue. All the banks indicated that electronic surveys used to conduct market research were quite important, indicative of ratings between 4.0 and 5.0.

Notwithstanding, Beta Bank placed the highest importance on using electronic surveys. The banks placed a similar importance rating on their e-BB website. Overall, the importance rating on IMAs ranged from neutral to being important.

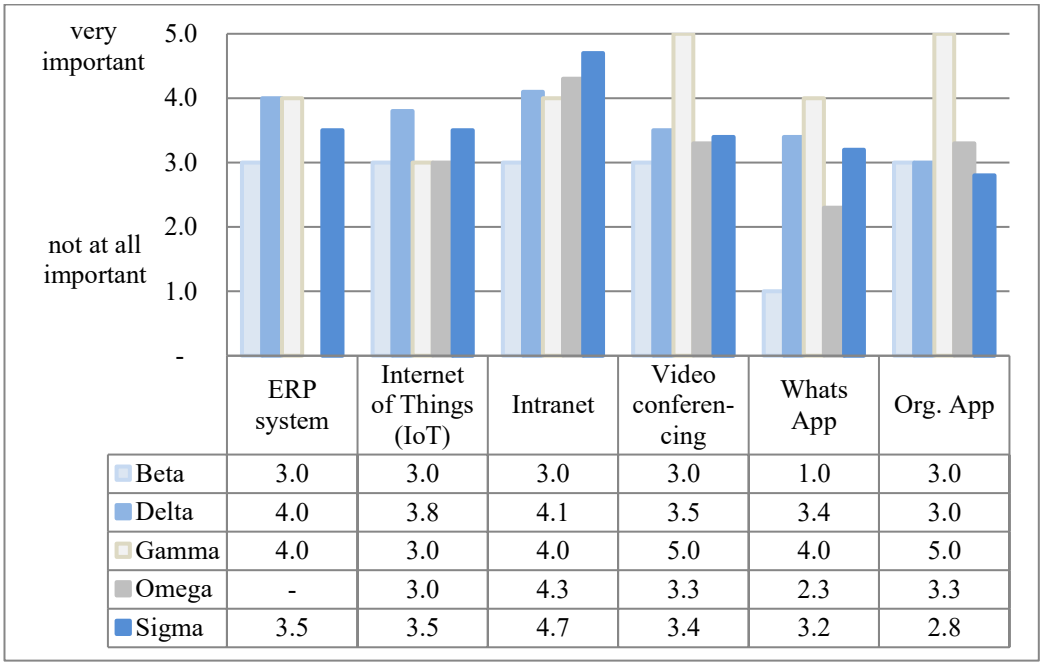
Figure 4.3a: Comparative ratings - other ICTs in marketing



	CRM	CRM 2.0	e-surveys	e-BB website	Innovation Management Applications
Beta	3.0	3.0	5.0	4.0	3.0
Delta	4.0	3.0	4.6	4.1	3.4
Gamma	5.0	5.0	4.0	4.0	4.0
Omega	4.5	-	4.0	4.7	3.5
Sigma	4.3	4.2	4.7	4.3	3.8

Importance ratings for ERPs and IoTs also ranged from neutral to being important. Similarly, for internal marketing, most ratings also ranged from neutral (3) to important (4). However, Gamma Bank highlighted video-conferencing as being very important, and the intranet received a relatively high rating (4.7) from Sigma Bank. With respect to mobile applications, Beta, Delta, Omega and Sigma Banks were neutral to placing little importance on WhatsApp and organisational app. In contrast, Gamma Bank's ratings were higher in this area with the organisational app assessed as being very important (5) and WhatsApp as being important (4).

Figure 4.3b Comparative ratings - other ICTs in marketing



	ERP system	Internet of Things (IoT)	Intranet	Video conferen-cing	Whats App	Org. App
Beta	3.0	3.0	3.0	3.0	1.0	3.0
Delta	4.0	3.8	4.1	3.5	3.4	3.0
Gamma	4.0	3.0	4.0	5.0	4.0	5.0
Omega	-	3.0	4.3	3.3	2.3	3.3
Sigma	3.5	3.5	4.7	3.4	3.2	2.8

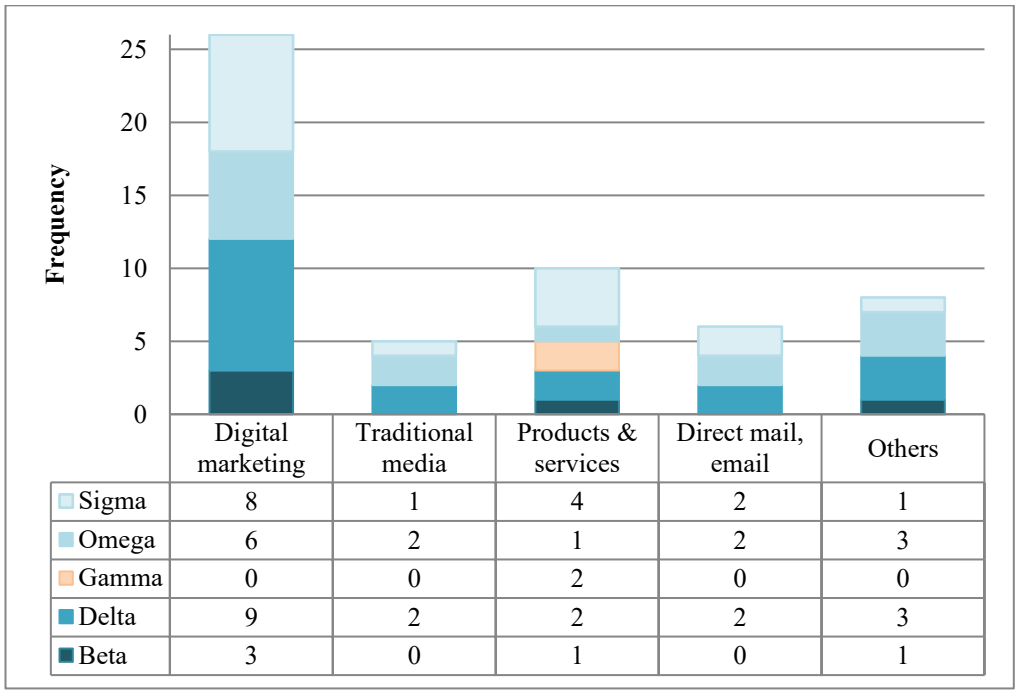
4.2.3 Departments, strategic importance and effectiveness

In terms of department(s) responsible for adopting ICTs into marketing, the Marketing department played a major role at all the participating banks. However, at Delta, Gamma, Omega and Sigma Banks, there was also input by the Communications, and IT departments. At Sigma, the CEO's office was also involved, whereas at Omega, the Product Management department provided input as well. At Delta, the company's Revenue Generating Units were also included. Hence, the need for a collaborative effort was apparent from the various departments involved in the ICT adoption process.

There was a range of responses from the five banks on the issue of ICTs considered to be of strategic importance. The most prevalent ones were those falling under advertising and promotions, that is, digital marketing, including social media, emails and search engines. Technologies related to banking products and services were also singled out, for example, online, mobile and internet banking. Figure 4.4 presents the frequency counts of ICTs of strategic importance. One reason cited for perceiving the strategic importance of these ICTs revolved around their enabling greater customer reach and market insights. Current consumer and market trends also influenced the strategic importance attributed to digital marketing, and electronic products and services. Alignment with the organisation's strategic direction and digital transformation efforts

comprised other reasons. Further, cost reduction, the capacity to measure results and enable more efficient targeting also influenced the strategic importance.

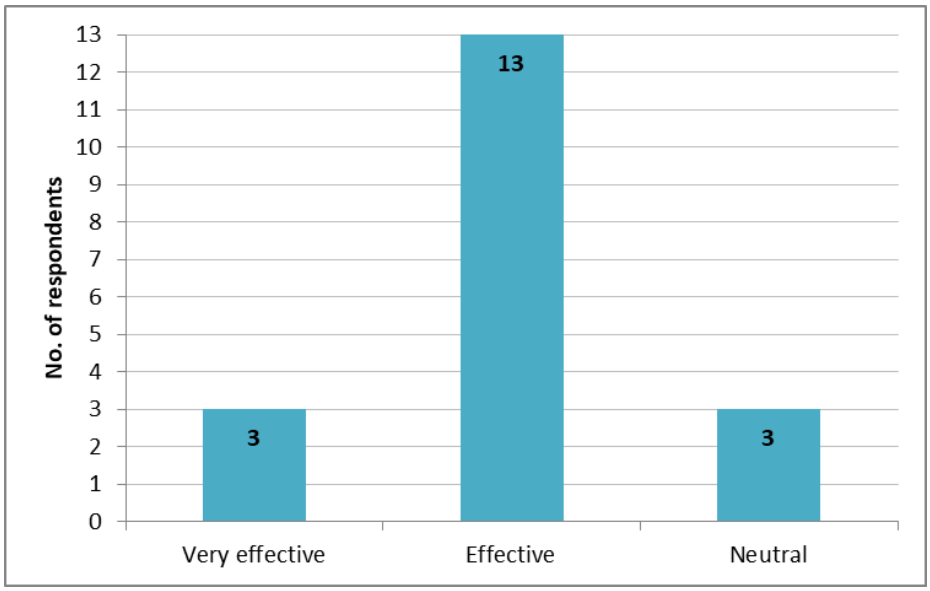
Figure 4.4: ICTs of strategic importance



	Digital marketing	Traditional media	Products & services	Direct mail, email	Others
Sigma	8	1	4	2	1
Omega	6	2	1	2	3
Gamma	0	0	2	0	0
Delta	9	2	2	2	3
Beta	3	0	1	0	1

As an overall assessment, most participants evaluated the ICTs used in their marketing efforts as being effective (Figure 4.5). Though a few persons were neutral on the issue, no one perceived the ICTs being used by marketing as ineffective.

Figure 4.5: Effectiveness of ICTs



The 19 questionnaire respondents also participated in semi-structured interviews and all questions were answered. The purpose of the interview was to first provide an opportunity to capture any additional ICTs adopted by the organisations which were not included in the questionnaire. Second, the interview served to gather insights into the underlying reasons motivating the adoption of ICTs into the marketing at the commercial banks. Third, the perceived impact of these technologies on marketing performance was also evaluated. Fourth, major challenges to ICT adoption and performance experienced by marketers were also investigated. For anonymity, participants were assigned a number and referred to as "P" for short. It is noteworthy that while a concerted effort was made to afford participants equal treatment in the reporting, there were instances where the participant's contribution warranted in-depth focus in the interest of conducting a thorough and robust analysis. Such was the case with P14 and P13.

4.3 Additional ICTs

Apart from the ICTs listed in the online questionnaire, responses to open-ended questions revealed two more: email marketing automation and in-branch digital screens. Moreover, the semi-structured interviews disclosed an array of other technologies being used by the participants in the course of work at their respective organisations. These are presented in Table 4.5. Hence, the interview process unearthed a selection of software, platforms and tools being utilised by marketing at all the banks, supplemental to those covered in the questionnaire.

Table 4.5: Additional ICTs

ICTs	Comments
Dashboards for monitoring performance metrics	for example complaints, ATM downtime
Digital billboards	in-branch and external
LinkedIn	Social media for professional profiling and contacts
Marketing automation and measurement tools	also enable one on one engagement
Microsite(s)	an extension of or supplement to a website
Project management tools	facilitate efficient project management
Sales management tools	assists with the management of activities and metrics for performance goals
Skype	including Skype for business
Tools for administrative work	including tools to store and share large files, for example Dropbox
Tools for agile marketing	enabling efficient team collaboration and turnaround on projects
Tools for analyzing and manipulating data	including analytics, data mining and data warehousing tools
Tools for email management	including email marketing, email blasts
Tools for graphic designs	tools which facilitate the development of graphic designs in-house
Tools for social media and website management	including content management, monitoring and listening, publishing, and responding to users
Tools to facilitate team collaboration and communication	particularly useful for virtual teams

4.4 Underlying reasons for adoption

ICT-adoption was a central theme in this research. Revolving around adoption, several categories or sub-themes emerged from the interview data. A major one addressed underlying reasons for adoption which comprised one of the research objectives. Arising out of the data analysis seven core reasons, or drivers and influencers of

adoption emerged. These included: customer factors; competitive pressures; industry technological developments; strategy; risk and reputation management; the need for performance enhancement; and the organisation's, as well as the marketing department's size, structure and functions. These drivers varied depending on the ICT or ICT platform adopted.

4.4.1 Customer-centric factors

Customer-centric factors such as customer demand, satisfaction and retention, as well as consumer usage trends, emerged as a driver of ICT adoption by marketers in commercial banks. Customer demand for enhanced services heightened by banks' focus on customer satisfaction played an influential role in adoption. This influence was evident in the banks' uptake of e-BB technologies. E-BB, that is, the use of electronic platforms to conduct business and banking, has marked a significant advancement to the way in which banking products and services are configured. The commercial banks in this study were all engaged in offering some level of e-BB services. Moreover, elaborating upon the high level of importance placed on e-BB as demonstrated in the questionnaire results, participants across all the banks expressed the growing significance of these new delivery channels. E-BB was described by respondents as: "critical" (P5); "the way of the future in that the customers' total interface is digital" (P2); an area in which the bank is "heavily focused and heavily invested" (P10). P11 summed up the situation saying "…that ultimately that banking services are transforming to embrace electronic channels, electronic tools and services…". The importance of satisfying customer demand, customer service and meeting expectations through the use of e-BB technologies was evident from P14's feedback on reasons for adoption.

> "I think it's also for customer service. Our investment in internet banking tools and going into mobile, is really keeping up with the expectations of our customers for better, smarter, more efficient types. So we'll always invest in some of the tools and better tools over time, because the customers are demanding more. So customer satisfaction and customer demand." (P14)

P7 expressed similar sentiments, highlighting the additional pressure of customer exposure to more advanced e-BB technologies available in foreign countries.

> "So I see that our organisation is very progressive in that respect (e-BB) and I feel proud that we are able to do these things for our customers now, because customers are very sophisticated and they have experience with other financial institutions in different countries. So they sometimes ask: 'I get this at my bank in the US. How come you all can't provide this?' And you know, we have to look at it in terms again, of satisfying customer needs. And for customer retention, it is critical." P7

Focus on the customer was also evident in marketers' selection of ICT-enabled media or channels through which to communicate with their customers. Widespread usage of digital channels, particularly social media, by consumers was influential in re-shaping the way in which marketers from the banks organised their marketing communications, or their advertising and promotional activity. This phenomenon was noted on the local market with growing consumer usage of platforms such as Facebook and Instagram, especially by, but not limited to, the younger demographic of the population. As such, marketers desirous of reaching this market segment, had little alternative but to respond to this consumer trend by increasing incorporation of these new media into their advertising and communications arsenal. Several participants expressed that increasing consumer usage of social media had influenced their selection of these types of platforms.

> "Well, you know in the Caribbean and I guess worldwide, generally worldwide, these are areas where the vast majority of the population is right now. And if we are looking to attract millennials and certain targets of customers, these are the tools that will help us to do that..." P12

P2 zeroed into Facebook in the local context.

> "So Facebook is a phenomenon, 'cause people are, based on this X million people (in Island-Nation), you have close to X million people (92.3%) on Facebook. So you know that's where the activity is, that's where people are talking about your brand, so you really want to be in that space." P2

P13 supplemented the point by indicating that these platforms were also being used by marketing departments in other organisations where the manager had worked previously.

> "Because it's trending right now and that's what everybody is doing. When I was at Company X in telecommunications they were doing it too. Aamm, Company Y in tourism, they were doing it too." P13

Apart from popularity of the respective media, marketers were also being selective in their choice of social media platforms, leveraging the most appropriate option for their specific objective, in other words, using a targeted approach. For example the LinkedIn platform was being used to reach professionals or profile executives and YouTube, for campaigns, as expressed by P18 and P17 respectively.

4.4.2 Technology – industry advancements and features

While customer-centric factors influenced the adoption of the latest e-BB technologies by banks, it would be impossible without the continuous advances made by the international suppliers of these banking-specific ICTs and/or their intermediaries. Financial Technology companies (Fintechs) were highlighted as industry enablers specializing in state-of-the-art ICTs to enhance financial products and services. The innate linkage to and reliance on technological advancements made within the industry, as a factor influencing banks' adoption of new technologies was expressed by P15. In assessing his banks' adoption of these technologies he stated that they simply "represent the evolution of ICTs as applied to banking", since over time they progressed from ATMs and electronic cards, to point of sale transactions and now to e-commerce using internet technology. The significance of the dyadic pressure on commercial banks from customers and banking suppliers / facilitators / intermediaries was gleaned from P9's statement below, referencing some of the payment solutions not yet available in Island-Nation.

> "This (e-BB) is not a movement or a phenomenon that is contra to the major currents of the world. It's the world is going, banking is calling for it, Fintechs are putting that pressure to say: 'This is what we can do, this is how payments can be done. I can send money to you from my phone to my phone right here.' So the

> pressure is on the banks now to say well why can't you do this? Persons are saying why we can't have wearables now? Why we can't have tap and go? Why I can't use my own debit card in the (United) States, right?" (P9)

Apart from industry advancements, features of the specific ICT impacted upon its adoption over alternatives. For example data security, the capacity to be integrated, performance track record, suitability to the financial industry and organisations of comparative scale, were some of the technological characteristics considered before adoption of technologies. P9 articulated this point.

> "These solutions as well have been proven and are tested and stand some of the most rigorous safety and data privacy requirements. It also ensures, these solutions as well ensure they are just a pass through and they don't recall or retain any kind of information. So that is comforting and imperative for a bank. Aamm, also because of their integration and scale... So these solutions can also integrate with some of your proprietary solutions or off-the-shelf solutions you may be getting from other vendors".

Therefore, technological advancements within the industry and features of the ICTs themselves also impacted upon the adoption decision.

4.4.3 Competitive pressure and industry developments

Apart from customer pressures and industry advancements, another factor prompting the adoption of ICTs by marketers was competitive activity on the local market and to a lesser extent, on the international landscape. Marketers were evaluating their competitors' activity on digital media and lining themselves up against that. This point was illustrated when P16, while elaborating on how her bank had embraced new media technologies remarked:

> "We don't have a choice. We would be in a poor competitive position if we didn't use it because our competitors surely are. And they do it equally well."

Similarly sentiments were expressed by P3 and P17 from another bank.

Apart from observing local competitive activity on digital media, developments by potential foreign competitors in e-BB, that is, product and service delivery channels were also on marketers' radar. Some participants speculated about a banking future with greater digital conversion. P6 captured this speculation.

> "We've seen international competitors who only operate in the e-business, e-payment space. So, who's to say that we won't very soon be in that space?" P6

> "…And I think the future is digital banking. If you look at the disruptors in the market, whether it's Fintechs, or completely digital banking, you can basically get a mortgage online now, right?" P19

The last comment was made in the context that locally, commercial banks had not yet reached the e-banking stage whereby mortgage processing was conducted online. Thus far, mortgages remained a face to face transaction. In light of these comments, it was evident that local and international competitive activity was influencing the adoption of ICTs in the commercial banks.

4.4.4 Strategic decision

Across all five banks emphasis on technology, digitisation, innovation and modernisation of products and services was a commonality. This trend was noted either in the tenets of the companies' strategic direction or the vision established by the executive management, or evidenced by the bank's progressive technological strides made over time. Respondents highlighted that the ICTs adopted in the various areas of marketing were linked to their respective organisation's strategic path. For example, P15 shared:

> "So I work closely with the GM (general manager) in electronic banking and the manager of sales and the payments, that looks at all the new and shiny technologies to determine how we position in the marketplace, and which are, which will be relevant and aligned to our strategy."

Moreover, the observation was made that the adoption of technologies, for example, banking products and services, and social media monitoring tools, was crucial to achieving customer-centric strategic objectives.

> "So, from a strategic level it's (information technology is) there. It is manifested in the fact that these solutions (social media monitoring tools) are utilised by the bank right now and it is used to help us achieve our strategic objectives of right product for the right customer at the right time, delightful customer experience… all on the marketing side of things, right?" P9

One respondent added that these ICTs were a point of differentiation from competitors.

> "Our mobile banking is a huge one in terms of technology for us, in terms of a differentiater strategically that helps to contribute to that idea of us (being innovative). I don't think we will ever become a truly fully digital bank, but our strategic direction is to focus heavily on customer service and our providing, it's things like the most modern and readily available… aamm, mobile banking, is part of that strategy and that's something that we do focus very heavily on." P10

The strategic importance of ICTs in banking products and services was also underscored by P4.

> "The organisation will eventually launch a digital version of itself, which would allow customers to transact and get most of the banking services via a digital platform. So no longer will you be doing in-person banking and so, some of these platforms, certainly website and so on, are the forerunners to an internet banking, internet banking, or online banking, which is what we refer to it earlier, is the forerunner to digital to a digital bank… so those are of strategic value." P4

The notion of ICTs such as databases and analytic tools, enabling data capture and quantitative analyses, thereby facilitating greater customer and market insights was also linked to strategic marketing.

> "Let me make this statement, this statement out of it. Of course marketing, we've established our desire if not always, if not, always a reality, but it's clearly the

intent of the organisation that this be strategic marketing unit which means that we need a lot of data and analytics to feed our decisions. And those specific tools, across whichever area in marketing provides the opportunity, provides us with the opportunity to capture rich data, allows us to capture real-time information, and to have aamm, a large pool, a large quantitative information at times, right? That we can, to help make those softer decisions at times about how we communicate, what medium we use to communicate, because in some ways we capture email addresses etc. etc." P6

This importance of data for strategic decision-making was confirmed by P10.

> "So I would say yes, in terms of our strategic, our strategic direction, data analysis is becoming increasingly important in how we shape and how we plan. For a long time we weren't able to effectively look at even our own customer database and do real analysis on it. That work is being done now." P10

Given these comments, the role of strategic direction and strategy in influencing the decisions to adopt ICTs across four of the five the banks was significant and explicit.

4.4.5 Risk and reputation management

It was noteworthy that social media adoption and usage by the case banks prompted further adoption of ICT tools and platforms for their effective management. Monitoring and listening tools were deemed necessary by the banks in order to manage any reputational risk arising from adverse feedback on social media. P1 shared accordingly, adding the benefit of market insights.

> "We have tools for monitoring conversations online about the brand. So that gives us a heads up on conversations that may be negative. Or if we launched a product, to see what is the sentiment around the new product and…yeah…so we use it in that way". P1

At another bank, P17 expressed similar sentiments.

> "Well, for one thing, the listening as I mentioned, it gives us that ability to proactively, proactively manage the brand's reputation. So that's one of the major benefits of listening. To be aware of what's happening in the space is vitally important from a market oversight perspective. Understanding where the market is at affords us the ability to, not only react, but to be a bit predictive as well." P17

4.4.6 The need for performance enhancement

It was also gleaned from the interviews that the need for performance enhancement had some influence on the decision to adopt or to increase usage of the ICTs. Moreover, this may have occurred at the organisational, as well as the individual level. For example, the need for cost reduction and greater efficiencies was a factor in the banks' decision to introduce e-banking. This point was captured in the following excerpt:

> "Clearly we cannot serve everybody to come into the branch to get particular types of services. So obviously our internet banking, all those online stuff, mobile banking, all those things are really to give customers the choice to be able to do things on their own, their own way without having to come into the banking halls. People coming into the banking halls are a cost for us, and it's not that we don't want you to come in, but we would prefer the higher value transactions come into the banking hall. So the lower value transactions are to move to technology, the higher value, we do…" P14.

Apart from cost efficiencies, the need for better customer data and market insights into their behaviour, and trends, processed more efficiently, was another factor impacting upon the adoption of technologies. At one bank, this necessity was spurring the decision-making process to obtain an improved system for the customer relationship management function, to enable more effective and efficient crafting of marketing messages and promotional offers.

> "I would say if it is that we had the CRM (system), I think it would have been, it could be better leveraged, so that as I had said earlier, aamm, how the CRM would work, we would be able to better see a pattern in terms of how a customer

> is behaving. And based on that, we could tailor, better tailor, a suitable, whatever offer, it is to that customer base and how, based on the patterns we're seeing. With the existing database now we cannot, we cannot do that. And that's why as I was saying, I know that we are in train to get something, but I just don't know where it is. But that is something that I think would help, in our marketing efforts." P5

The inclination to adopt ICTs based on an expectation of improved performance, in this case, reduced cost and quantifiable impact, was also observed at the individual level. For example one marketer, P3, observed that the managers of the bank's business units / sales lines -her internal clients- were increasing their requests for digital campaigns, as compared to heavy focus on traditional media which they had done previously. The marketer made the following comment:

> "Before, we would have done placement (of ads) a lot, spend a lot of money in traditional. A lot of persons (business line managers) (are) now asking for digital campaigns, because it is more cost effective and you can measure it, you can measure the performance."P3

This quote suggested that despite the organisation having adopted the ICTs to enable digital campaigns, adoption by the individual line managers also played a role. The need for tools to enhance organisational efficiency, for example project management tools was also underscored by P19 and P1. Based on these insights shared by participants it was evident that a focus on organisational performance was also a driver in banks' decision to adopt ICTs.

4.4.7 Size, structure and functions

In addition to the influence of customers, competitors, suppliers, strategy, and the need for performance enhancement, another factor impacting upon the adoption of technologies was the size and structure of the organisation, including the structure and functions of its marketing department. The impact of structure was inferred from the observation that two of the respondents described their respective banks as a matrix organisation with functions distributed across several countries. As such, from a functional standpoint, ICTs which enabled communication and collaboration across

borders were necessary not only for the marketing department, but for the organisation as a whole. P19 described these technologies as being “systemic”. Hence, the use of tools enabling project management, video conferencing and virtual meetings was highlighted.

P6 made a similar comment. Based on the large size of her organisation and the extensive size of their clientele base, she expressed that it was a necessity to have an ICT tool, particularly a database system, to manage and make sense of customer data. She shared accordingly:

> “Cause that (the database system) is the first thing that came to mind, because we're not talking about a small organisation, right? We have, we are the number X bank in the industry, and there are many who multi-bank, so our number of customers, our customer base is huge, in the hundreds of thousands, and there's no way to harness that intelligence without ICT. We absolutely need those tools to be able to slice, dice, segment, evaluate and analyze that customer base information.”

These points illustrated that size and structure of the organisation also have an impact on the adoption of technologies.

4.5 Adoption impact on organisation structure

While on the one hand the organisation’s size and structure impacted upon the ICTs adopted as seen in the aforementioned, the converse situation was also noted. The decision to adopt ICTs also had structural repercussions within the organisation, specifically pertaining to marketing and marketing-related functions. It was noted that several of the banks were engaged in some form of re-structuring or transitioning induced by the adoption of ICTs into their marketing function. In the case of P1’s organisation, a new unit was set up to focus specifically on marketing technology and analytics. Moreover, the participant added that in addition to equipping the new unit with human and other resources, there were other areas within marketing where supplemental resources were provided. For example, based on the usage of the new communications channels, a new position for content developers was established.

Similarly, P10 indicated that his organisation had recently set up a digital marketing team in-house, in order to treat with their marketing initiatives using digital technologies, in particular their website and social media. Moreover, there had recently been some shifting around within the marketing department. Participant 18 also shared that some re-structuring had occurred within the marketing department of her organisation, in terms of shifting from a business line to a country focus, as well as staff reduction.

Hence, apart from structural changes related to the incorporation of the ICTs, three of the banks had recently made changes to the way in which their marketing function was organized by either adding new roles or changing from a business line focus to a country focus.

In addition to making internal changes to support the use of new ICTs in their marketing efforts, participants of one bank also added that their organisation had contracted the services of a digital agency to assist with managing the communications technologies, with special emphasis on social media. In another case, an advertising agency was assisting the bank with its digital communications initiatives. It was noted therefore that outsourcing was one approach taken to assist with the management of certain ICTs, in these instances, digital marketing.

4.6 Adoption as a process

One of the themes emerging from the data analysis was the notion that adoption was a process or a journey. Participants P14 and P15, both representing local banks opined that the respective banks were still in the infancy stage of their digital journey, implying that their organisations had not yet realised the full potential of the ICTs adopted. Further, there were several instances where the ICTs being used by the respondents' marketing department, for example the company's website or the CRM tool, was in a state of transition, earmarked for some form of upgrade since they were no longer meeting the required needs. Apart from advancing in stages and the need for upgrading, it was also noted that respondents from one of the banks had engaged in a series of steps prior to ICT adoption.

At one bank, some of the steps preceding the ICT adoption decision entailed: consistently scanning the environment for new technologies, researching them, conducting expert consultations, and liaising with potential suppliers. Depending on the importance of the ICT, for example data storage, more stringent measures were undertaken such as physically vetting potential supplier facilities. Where feasible, testing several ICTs via a trial and error approach was also done. P8's comment below illustrated this point.

> "Yeah, so we wouldn't just go with one (technology), right? Aamm, we would say, okay, let us explore what is on the market and we would also have conversations with our digital agency, who will be considered to be like the experts in it. And they would provide the relevant literature. So similarly with emails, the XXX platform that we use, we use it because of its versatility, what we can do with it, compared to other tools that we have looked at." P8

At the same bank, testing for market acceptance of new products reliant upon technologies was also undertaken as a precursor to launching. For instance, P9 indicated that the bank conducted a pilot test on a new form of ICT-based payment solution, wearables, at a major public event in order to gauge consumer response. Moreover, the test was also posted on Facebook for "real time feedback". Based on the market response, the decision on whether or not to introduce the new product was taken. In light of this discussion, adoption was perceived as a process or a journey comprising stages, and involving a number of steps prior to the decision to adopt.

4.7 Adoption barriers and challenges

As one of its objectives, this research also sought to examine issues construed by marketers in the commercial banks as barriers and challenges to ICT adoption. Respondents highlighted three areas in this regard: customer data security and privacy, lack of understanding, and difficulty to obtain budgets. These points are hereby reviewed.

4.7.1 Customer data security and privacy

When questioned about challenges or difficulties regarding the adoption and usage of ICTs in their marketing functions, the issue of ensuring customer data security and privacy, and mitigating inherent risks associated with using e-BB and communications technologies was prevalent in participants' responses.

> "I don't know that there have been difficulties specific to marketing. In a more general way obviously, like any other bank we have to manage the issues that come along with the use of technology, in terms of security which is a big one for all organisations today. So, there is a big, big focus on making sure that our systems, the solutions that we provide, the services that we offer are secure, to assure our clients and users that they can safely use these new channels, these new tools, these new services with the assurance that Omega has done everything that it can to make it secure and to keep it secure, and that our customers can safely transact business and use these financial tools. And so that's the responsibility for all banks as well." P11

It was gleaned that the nature of the sensitive, confidential customer data banks handle heightened the risks of providing online services, more so than for other industries.

> "Because of that, because of the customer data, because of when I go and I look at Mary Smith on my system, I am also seeing her date of birth, her mortgage, her credit card, how much money she has in this account, how much money she has in an investment account. I am seeing things that nobody else... that some of her family members don't know, right? So when I use that now to market, I have to be responsible. I have to ensure that when I use my database and I take the fields to build out my programme, I don't take a financial field and put it in there and mix it up with someone else's name and (erroneous) things go out there. It's a risk." P9

Additionally, leveraging third parties to conduct marketing activities also bore related risks.

> "Just the risk really… the risk of customer information, the risk in terms of accessibility of customer information, because we don't have all the internal

> tools and resources to be able to reach the clients. We have to outsource some of that information and then you, you run the risk of presenting information to someone outside of the bank and it's client information, right?" P12

Further, the legal and ethical implications of the manner in which customers' data are handled were also considerations for marketers.

> "So the major concern in terms of the use of the technologies, is that we have to be guarded that we are not transmitting customer information in a way that violates their rights." P17

P12 expanded on legal constraints by adding access restrictions to lucrative foreign markets which did not arise when she worked in the consumer goods industry. P7 highlighted the data security issue in the B2B context where the bank facilitates retailers' e-commerce service.

> "Of course there is a lot of security involved in online transactions and we have to make sure that information on the cardholder's side and information on the merchant side is secure within the framework of the systems we (are) providing access to." P7

While marketers' noted customers' growing acceptance of communications and banking technologies, they were mindful that customers were also very concerned about fraudulent activity.

> "So for the most part, people are comfortable receiving communications and using the ICTs for service, for the most part. However, of course there are, there is the whole world of fraud that is associated with digital technology that customers are wary of, right?" P4

While P4 voiced this concern, similar sentiments were expressed by P18 and P13, all from different banks. The issue of customer data security and privacy, preventing fraud, and managing the risks involved in using technologies related to e-BB and communications was therefore a major concern to marketers across the commercial banks.

4.7.2 Lack of understanding

Four participants representing three of the large case banks raised the issue of lack of understanding as a challenge. This comprehension problem was hindering greater adoption and diffusion of ICT usage within the marketing department, across its functions. In the first case, the idea of challenges came across very strongly because it was introduced by the participant, P14, who had been reflecting upon her situation for some time. P14 had been managing a marketing portfolio for more than three years. As a personal initiative she underwent training in social media management and digital marketing. After three years of grappling, she felt she had finally achieved a level of proficiency in the adoption and usage of ICTs in her job, including an appreciation for the inter-connectedness of the various technologies. She attributed this comfort level to simultaneous immersion in on-the-job practice while being exposed to the theory in the training course. Further, she complemented theory and practice by doing additional reading along the way. P14 noted that her personal circumstances at the time (single, no dependents, family support) was pivotal to affording her the personal time necessary to immerse herself into the adoption and usage process.

Against the benefit of her own journey and challenges encountered, P14 assessed the issue of lack of understanding as stemming from persons not grasping the value the adoption of ICTs made available by the bank could bring to their work. Further, the existing "branch (retail) machinery" was well-oiled, successfully delivering the company's results for decades so there was little incentive to deviate from it. The manager shared accordingly:

> "We're moving along the way, but it (technology) hasn't been able to prove its value enough, because we're still very reliant on our branch machinery and our people machinery which is very robust and very well organised to get the results as you could see, consistently over many, many years."

Apart from not understanding the value of the ICTs, P14 added that the perception was that ICT adoption and usage required the investment of personal effort, the benefits of which were not derived immediately, but rather took years. Further, a grey area existed

regarding exactly what persons needed to do in order to reap the rewards of ICT usage. Putting herself in her colleagues' shoes, P14 expressed this predicament:

> "More work that I'm not seeing the value in, right? That I don't think I will see the value in. So that would have been lack of knowledge or true understanding of how it is applicable to my job *now*, not ten years down the road. And also lack of clarity in what I need to do in order to reap the value of the new system coming in. And sometimes that is not told, or explained, or shown."

P14 elaborated that the adoption and usage of technology into work habits and processes, as well as how they inter-relate, involved a steep learning curve. Learning signified downtime in the face of stringent deadlines and performance objectives, as well as personal time, a situation presenting a significant hurdle to managers. Additionally, the prospect of having to change traditional marketing habits and processes engrained over decades also seemed to compound the issue. These factors were expressed in P14's excerpt below as she reflected on her colleagues.

> "So how do those people start to absorb and understand all of these things like how CRM fits in with accounts processing information, with this and that and email marketing and social media, and which one to use when, and how to do this… When do people, practitioners who, and especially, I would say, seasoned professionals who are older and would have learnt marketing in 1985, and (it) has worked for them in their career for the last twenty years. And you're telling them to add all of this new stuff now. Where are they getting that white space to really absorb that, you know?"

P14 added that while she was in a position to help her team from the benefit of the proficiency she had gained, she was aware that this may not have been the case with other managers.

> "I can teach my team. I can do all of that, but I know, (to) other people this is like a grey area, a very, very grey area and they don't really understand how the dots are connected."

Participants 3 and 6 experienced a similar lack of understanding at their organisation, especially pertaining to communications technologies like social media and email marketing. In this instance, the intricacies of digital marketing were underestimated and the requirements for doing it effectively were not fully grasped by managers. This scenario presented a source of frustration for P3, who handled the digital communications portfolio. The following quote articulated this issue as the participant reflected upon an internal training seminar recently held.

> "And a lot of persons (managers) do not understand digital. For them they would think it's so, that's my challenge, they think it's so easy to do, but then, so even in the training, I was the only person who had to present out of my teammates, apart from senior management. And only after the presentation, then they realized the whole strategy behind everything is content marketing, social media marketing, which is two different things. I mean social is the tool whereas content is the actual creation of the ideas. Email marketing and what it takes to do email marketing in terms of database cleanse, and the templates involved, the analytics and the reporting, even content on the day of the event. A lot of persons think it's, you know, take a photo, post it up and caption it right? And you get this. Write this. It's so much more because then you have to do research beforehand and understand how to engage with our audience." P3

P6 confirmed the misconception of the requirements for effective social media marketing and its related costs among the executives, also noting there had been improvement.

> "And there is also that feeling, there was that old, that thought that digital was free, you know, you put on, it's freer than if you place an ad, a newspaper ad. There was almost that thought from the executive level that if you are on digital, your Facebook page, and you have somebody manning the page, that that was free, there was no particular placement costs or, you know? And hence it took a while for them to realize, no, that there is a cost to it, whether it be on the content management or the production, or even there's a placement budget required if you going to push it. So I think it took a while to understand that okay, we in digital and there's really actually a cost to being in digital. It's free for you and me who want to go on our page." P6

In the case of the third bank, the respondent linked the issue of executives and other decision-makers not comprehending how much marketing had evolved, becoming more data-driven, to a reluctance to invest in ICTs and ICT-related marketing activities. Hence, in the beginning it was sometimes difficult to get budget for digital. When asked about challenges related to ICT usage in marketing she expressed the following:

> "Okay. I think… That's a good question. I think one is around cost. So I think the investment in the tools and technologies is… I wouldn't say it's a battle, understanding the importance of the tools and what it delivers is sort of the basis for whether the company would invest. So I think understanding the benefits that these tools can bring is the real challenge. And so if there is a lack of understanding, then there would be a lack of commitment to invest. So I think marketing has shifted I would say within the last 5-10 years so much, that it is so data-based now, data-driven, yet there is this perception that marketing hasn't evolved in that way. So I think because of the lack of understanding of how much marketing has changed, all those (ICT) channels that we just mentioned, people also, the wider executive, the wider leadership does not understand clearly that evolution. And therefore does not understand the tools and technology that has come with that evolution. And so if there is a lack of understanding of that, then there would be a challenge with committing to invest. So I think the challenge is the understanding of what those tools could help with and how it can deliver. But that I think is wrapped up in the larger question of understanding the evolution of marketing as a whole, with data and analytics and technology. I don't think it's in isolation. It's a bigger question of how marketing has evolved. So I think that's the big issue, the biggest challenge." P19

These points underscored a lack of understanding revolving around ICTs, the requirements for their effective use and their potential value, at the managerial and more senior levels adversely impacting upon technology adoption and usage. The existence of a gap between firm and individual adoption and usage also surfaced as an issue.

4.7.3 Difficulty to obtain budgets

Lack of understanding could translate into a struggle for budget for digital marketing as demonstrated in P19's last comment, although the situation eventually improved at her organisation. The challenge to obtain funds for advertising on social media was also faced by another respondent who highlighted the lack of understanding as an issue - P3. It was interesting to note that although they belonged to different organisations, one foreign-headquartered and one completely local, P19 and P3 faced a similar challenge in terms of a lack of understanding by decision-makers resulting in limited budgets being assigned to social media.

4.8 Performance measurement

Performance was another theme prevalent in the data analysis. Apart from being a motivating factor in the adoption of ICTs as discussed previously, several performance-based categories were also raised. These included performance measurement, impact, and optimisation, as well as barriers and challenges impeding performance optimisation.

Participants in the study derived significant performance benefits from the ICTs employed within marketing. Firstly, the ability to track, measure, gather data, as well as generate opportunities redounded to marketers being able to quantify and by extension increase their contribution to the business in a tangible way. Prior to the introduction of the digital technologies this quantification was difficult to achieve because a major limitation of traditional media (television, newspapers and radio) was the difficulty to measure its impact - a sore point for executives, particularly in the financial services sector. Moreover, the cost of traditional media, especially television and newspapers, was expensive. In contrast, digital media was less expensive and the impact of digital media, for example social media, websites and email, could be measured. P2 emphasised the measurement point as the first step towards performance improvement.

> "But now you can measure it (marketing performance). So, yes, certainly it has made a difference in terms of, and what gets measured, gets done. That's what they say. You can do it. You can say I want to move my social media impact from here to here, so you actually see how you can move the needle, by what you do." P2

P1 highlighted that the measurement and tracking features led to generating more prospects and building customer relationships en masse.

> "So… it (digital media) actually started being able to really abstract that 'what is marketing's performance and contribution to the organisation?' So, prior, it may not have been as easy to say that marketing contributed to X percent of growth in this particular product portfolio, but because we are using more digital channels, we're using the technology to track and we have a commitment to using data. We monitor that closely. So it first starts with being able to actually say what is marketing's contribution to real business and then of course now we have new channels where we can reach more prospects and existing customers to really build relationships at scale."

A summary of some of the metrics used to gauge the effectiveness of the marketing initiatives using digital media is provided in Table 4.6.

Table 4.6: Metrics for performance measurement

Area	Metric / KPI
Costs	marketing expenditure; percentage of marketing spend in relation to sales; cost per click
Cross-selling	product use count
Emails	click through rates; sales resulting from a communication (dollar value and number of applicants)
Engagement on social media platforms	engagement rates; number of likes; number of shares; number of followers; number of clicks; size of audience; fan base
Leads generated from digital marketing	number of leads; conversion rate of leads; value of lead conversions; cost per lead
Profitability	return on investment
Sales generated from digital marketing	number of successful applicants; volumes of transactions
User behaviour	bounce rate; net promoter score
Websites	website traffic (number of visitors to the site); amount of time visitors stay on the site

Note: This list is not exhaustive

P18 confirmed the importance of measurement and tracking to marketing, adding that digital media also offered more flexibility and responsiveness in that ads could be easily tested and changed based on market response.

> "The thing about these (digital channels) is that you are able to track. The main thing we were not doing before as marketers is being able to track our business, to track our spend. We're spending a million dollars, what did we get out of it? No one could have answered that question. So it's really the tracking mechanism. It also allows us to change our messaging based on the client's preference and I'll give you an example. One of the things you're able to do when you are advertising on Instagram and Facebook, you may be able to test an ad. So let's say I'm advertising a credit card, right? So let me give you an example. We have the XXX travel credit card. I will do two ads: one ad which shows the credit card in it, big and bold, and the other ad will show maybe two persons on a vacation. We're able to place those ads in this system of Instagram

> and Facebook and based on the number of clicks we are able to tell which is the ad generating the most interest. What we're then able to do is to use that ad instead. So we pull the other ad out of the system, because we know that that ad is not really working for us." P18

It was apparent from these excerpts that the measurement and individual tracking features of digital channels had a positive impact on marketing's contribution to organisation performance. Moreover greater flexibility and responsiveness augured for more effective messaging and campaigns.

4.9 Performance impact on cost, efficiencies, customers and business

Apart from yielding quantifiable results, other advantages of the digital channels touted by marketers included cost effectiveness, speed, better responsiveness, personalization of messages, and better customer engagement. These advantages were exemplified especially with regard to communications channels, including social media, email marketing, and websites. Sentiments on the benefits of these newer communications technologies were articulated by respondents across four of the case banks. P16 stressed the efficiency of the social media channels.

> "… for us the fastest way to get stuff out is really through the social media because that works like wonders." P16

P12 emphasised the ability to target users with particular demographics, as well as the cost effectiveness, as compared to traditional media.

> "…And if we are looking to attract millennials and certain targets of customers, these are the tools that will help us to do that. And they are also more economical than traditional media channels. So the reach is wider and the cost is less." P12

P8 reinforced the cost effectiveness benefit, adding others such as greater overall effectiveness, customisation of messages, engagement, and capturing customer information.

> "So emails for example, I mean it allows you to customise your messaging to individual customers. It allows for interaction and engagement between you and that specific customer, and from a cost perspective, I mean like it's significantly less, right? …when we send out let's say 20,000 / 30,000 direct mail pieces in the traditional letter form, the cost is ridiculous compared to email which basically is close to free, right? So cost is a factor, effectiveness is also a factor, effectiveness from the perspective of frequency. As I said customisation of messages, interaction and engagement, ability to capture information, additional information, ability to have ongoing conversations, right? So those would be some of the main reasons for (using) email (marketing automation)." P8

In light of these illustrations, adoption of ICTs, especially related to digital communications and electronic payment solutions, have generally made a positive impact upon the marketing performance of commercial banks in the study.

4.9.1 Performance impact - a different viewpoint

While feedback regarding the performance impact of social media was positive from marketers across all five banks, some uncertainty was also conveyed by one manager - P13. In contrast to the accolades noted in the previous section, the manager expressed scepticism about digital media being a panacea for all the deficiencies of traditional media. Having former experience in marketing in two major service industries, she questioned the relevance of all the data digital media was churning out, and whether or not marketers had yet attained the proficiency to reap the desired results. This reflection was made in comparison to traditional media which had been tried, tested and mastered over decades. P13 also queried the notion that digital marketing was cheaper than traditional media.

> "But I want to think that this digital mail, this digital marketing is more hype (chuckle) than anything else, because we see aamm companies do it and we think it's cheaper and everything, but it is actually more expensive than traditional mail (media), I think."

When probed on why she formed this opinion, P13 referred to some complexities of digital marketing including content management, achieving user engagement without disturbance, and the need for adequate budget allocation.

> "Because your content has to be very engaging. You are, when you are doing digital marketing, you are trying to, and I'll put this in quotation marks, you are trying to 'disrupt, disturb, get into a person's psyche' as they're doing something else. So they're using their phone to scroll on Facebook and you want them to stop doing what they are doing, like kind of looking at their friends, to engage with your brand. So your content has to be very catchy, and it has to be dynamic. And if this first ad doesn't work, you should probably have four others with slightly tweaked content that would appeal to me. So in that way, I think sometimes it can be more expensive. And do we necessarily in the Caribbean, 'cause I am thinking that my telecommunications perspective, I also worked in tourism. Have we really allocated the budget to do that effectively? Aamm, I don't know."

In summarising, P13 assessed digital marketing as being more difficult and requiring greater budgets than Caribbean marketers are currently assigning, in order to be effective.

> "All people hear is it's much cheaper. To me it's much harder, if it's to be done properly. Because when like Coke and these people do things, they're not spending like 10 cents, you know. They're spending like millions of dollars because they want this thing to go viral. So you really need to have a different mind frame for that to be effective." P13

P13's point raised the issues of complexity and newness as hurdles to optimising the marketing performance of digital media technologies. Further elaboration on optimising the performance of ICTs in marketing is provided in the following section.

4.10 Performance optimisation

Performance optimisation was singled out as a sub-theme, differentiated from performance impact. It signifies leveraging ICTs to elevate the marketing performance

bar to its heights. This sub-theme was particularly relevant in the case of P19's organisation (foreign-headquartered) which had transitioned to agile marketing in an effort to optimise performance. This organisation also viewed itself as technology-driven. P19, a regional director explained that leveraging ICTs for agile marketing enabled faster execution of campaigns and greater market responsiveness. She elaborated using the example of Trinidad Carnival since the interview occurred during that season.

> "We are able to churn out (campaigns) and go to market. So campaign delivery times are reduced significantly, responsiveness to customer needs or changing demands… So you're able to look at a trend that's within the market now, like Carnival, you can change out your campaigns more regularly."

Moreover, P19 further stated that a focus on agile marketing produced faster campaign turnaround times which enabled more market testing and learning, ultimately leading to enhanced performance. She explained accordingly:

> "What ultimately it does, Tracey is when you are able to churn campaigns out more quickly, you're more responsive to customers' needs. What it really does, is allow you to learn. So you learn what is working through A-B testing, what's working and what is not. So the ultimate bottom line, so yeah, you have effectiveness, yeah, you have the cost savings, but what actually that translates to is good business. So you're able to learn that if I get this campaign out more quickly to a customer base and you do an A-B test, you are able to test conversion rates by both campaigns and see what's working best and then implement that quickly in the next wave. If you didn't have these tools to support that, you wouldn't be as agile. And if you aren't as agile, you can't then do a lot of tests and experimentation which is ultimately what drives business results." P19

The flip side of performance optimisation was being experienced by a marketing manager at another large bank. This manager was reflecting that the layers of controls, approvals and authorisations at her organisation were tedious to go through, retarding the process of getting campaigns out and completing projects, effectively deflating the

"excitement" of using ICTs. She assessed her predicament as stemming from the implementation and operationalisation of ICTs in the following quote.

> "Yeah, so I have IT (department), I have Analytics. I also have our branding and external people, our agencies which is another, through another team that, you know, that I have to create all the copy and the imagery that have to feed into all of this, our editorial team who was to review and write everything. That's another problem that we have, in implementing ICTs. So you see how many teams I have to go through. So you see how painful it is to do one thing. It's a very painful exercise. So marketing is hard, in my opinion, not because you can't conceptualise it, but you cannot operationalise it." P14

The difficulty of the situation was summarised with the following analogy:

> "So it's like you are swimming against the tide to get the results." P14

In her reflections on the situation, P14 compared her organisation against global technology-driven firms.

> "We are not Google, we are not, you know, Facebook and these types of technology-driven organisations. We are now bringing technology into a legacy culture. So everything is kind of separate and in order to get better results, you as a manager have to step up your game, understand all the different players, have relationships with everybody, see when and how to interact with them and then to get the results. And that… so it could be exhausting (chuckle) for someone who doesn't even understand the value that ICT can bring. So where I am now, I find it very challenging." P14

Like P14, P15, a manager from a third large bank opined that the performance of the range of ICTs currently being incorporated into marketing in his organisation (for example digital media, database and payment solutions) was sub-optimal. The observation was made in the context that the business results generated from the bank's existing "machinery" was outperforming those generated by the technology-based alternatives. This remark was substantiated by the assessment that his organisation was

still in the infancy stage regarding the incorporation of ICTs into marketing. Hence, some upgrades were still pending, and they were not yet achieving the desired results.

4.11 Performance optimisation – barriers and challenges

It was surmised from the foregoing section that issues related to the implementation and operationalisation of ICTs in marketing were detracting from performance optimisation. Further, the infancy adoption stage also appeared to play a role. Apart from these two factors, several challenges deterring the optimisation of ICTs by marketers were raised during the interviews. These were grouped into the areas of technical issues, the need for marketers to re-tool, the need to reduce the technology adoption rate by marketers, and having to manage many advertising options.

4.11.1 Technical issues

Interview respondents acknowledged several issues stemming from the technical side, that is, beyond the purview of marketing which were nonetheless believed to be impeding performance optimisation in marketing. These included ICT systems in the organisation not being fully integrated and the need for better data analysis tools and resources. Four participants representing two of the banks elaborated on these problems. P5 reflected upon some of the drawbacks of her existing database system.

> "It's not that the system does trending. We would get the raw data and we would have to input the data in such a way to trend. But the data doesn't spit that out, trending information. I wish it did, but it doesn't (chuckle)." P5

She added:

> "We have to go through work to clean up the data and sometimes even in trying to clean it up, it still may have a margin of error with it…" P5

P15 from the same organisation supplemented P5's point, remarking that the data was also "siloed". The point that the organisation was still in the infancy stage of adoption and usage of ICTs in marketing was also noted. P17, also from the same bank expanded

upon the data organisation issue observing the need for enhanced data analysis and data mining capabilities:

> "So the challenge may be to have more individuals who can analyse the data and understand the story that data is producing, make sense out of it, uncover patterns that may or may not exist, really to address what may look like heterogeneity in the data and say it's not that heterogeneous, but there is some homogeneity that we could see right here. Yeah. There's a greater need for that now, because increasingly there is a greater appreciation for data-driven decisions. So there's no need to operate as blindly as before, and drawing on my previous example of the new technologies that allow you to measure and determine which direction you want to go. This tremendous data that can be mined and looked at to understand the stories, so there is that greater need. So I would, I would class it as a challenge." P17

Similar data-oriented concerns were expressed by P10 from another organisation, specifically the lack of integration.

> "So if we have all these technological advances and these new channels or vehicles available to us, but we haven't gone to the step where we have a fully integrated customer information system that is maintained. And then it's a frustration for the end user, the marketer, to execute when I have this technology, it is beautiful, I can reach targeted people in a matter of seconds in the case of email, but my customer information system is not where it should be, then that's a point of frustration." P10

It could be inferred from the comments above that there may be a need for updating and upgrading the ICTs being utilised for data management, integration and analysis which may require significant investment. Thus, the real challenge facing the two organisations may be attributed to the cost factor.

4.11.2 Adequate back-end operations

Another area hampered by cost, was the back-end operations required to fulfil or support front-end technological transactions made possible by advances in e-BB. One manager explained this situation in the quote below:

> "The biggest challenge of course is to make sure that fulfilment can occur, because technology normally is a front end, and the operational parts and the conventional parts of the system that needs to be able to modify, be modified. So effectively, if we had to, to capitalize on the opportunity that ICT brings, it may require significant investment in upgrades to do so. And of course from a business perspective, we need to balance okay cost benefit, you know, long term, short term type of thing." P15

This participant further added that the organisation's fulfilment of the promise made to the customer is more important than making the promise. This observation implied that the impact of response times to customers' transactions and other requests were expected to be on par with efficiency standards in the electronic age.

4.11.3 Reducing the adoption rate

P14, a marketing manager at one of the locally-owned banks opined that a major deterrent to performance optimisation was the length of time it took for individuals to adopt technologies. She expanded as follows:

> "How do you reduce that adoption time for digital integration? What is like a road map for it? Everybody has one. We have one too. Talk about, yeah, I have a little section, change management section, team management, a seminar (chuckle). I talk to people three days for the week. But I think when you look at that road map, there are some things that you might need to focus on a little more, that really make the difference in that road map. The difference in the road map is not checking the boxes and getting the things deployed. It's the adoption. How do you get adoption because you can put in all the fancy things, but how do you get adoption and usage? That to me is what I would like to figure out

(chuckle)…Yeah. What are the factors that impact that and how do we fix it?" P14

This manager added the insight that each person's adoption and usage journey might be different saying:

"Everybody is on their own little trajectory of some sort of digital transformation." P14

Therefore it was apparent that the individual adoption rate of ICTs impacted upon overall performance optimisation.

4.11.4 Digital media is more complex

By nature, digital media appeared to be more complex than traditional media and as a result it was more difficult to manage. As such, P1 underscored the need for training and controls to mitigate risks which were not necessary with traditional media.

"So we've invested in training to understand how we're using the technology and what are the risks and orienting them with these guidelines. And that's a big one, now that we have more tools, we have more accounts, we have a lot more passwords for everything. How do we make sure we have controls in place to keep everything secure? So a simple one is, you know, how you'd manage your own personal social media is a far cry from how you'd manage the bank's social media. The number of devices you are logged in at any particular time, those little things that you may not think of, um, you have controls in place as a bank. You don't have to think about that when you're sending something to press." P1

Similarly, P16 from the same organisation reminisced about the relative simplicity of traditional media in her statement below:

"Ooohh it (traditional media) was very simple. Life was very nice then (chuckle)". P16

Representing one of the foreign-headquartered banks P18, a traditionalist marketer highlighted some of the technical aspects of new media.

> "There are so many technicalities in the whole digital marketing that if it is you don't get on board, you're going to be left behind. I mean years ago, who would, I would not know what a Google ad is, what is search engine, you know, Facebook analytics." P18

These observations about new media by marketers demonstrated that they were more complicated to manage than traditional media.

4.11.5 Keeping customers engaged

Related to the previous point, a senior manager conveyed the challenge of having to continuously evolve messages to maintain engagement on social media platforms or risk being outdated. He made the analogy of consumers always seeking the latest model cell phone or computer.

> "So consumer demands have started to mimic that (the need to have the latest model cell phone or computer) and consumer behaviour and attitudes have started to mimic that. They become very bored. They become very disenchanted and apathetic, right? So you can't have the same message running on Facebook, the same ads, the same Instagram… engagement will be low. But if you keep changing it up, you see it. So, persons in that extent now are not satisfied with a static, boring bank. They want to see my bank evolving. They want to see my bank bringing out the latest technologies and solutions. They want to see my bank giving me things I don't want and I don't need, but reminding me, hey this is how it could be used, and then I'm saying "Aahhh, yeah boy, I really need it." So because ICT evolves and the consumer demand evolves, the marketer has to find ways of evolving his offer and that is why I'm saying obsolescence becomes frequent. It's now, oh that was yesterday news and that's today, eh? But that was yesterday. What are you doing for me today? How are you wowing me today? And that's the challenge for the marketers in today's world." P9

Hence, maintaining consumer engagement on social media platforms required consistent effort and presented a challenge to marketers if these channels of communication were to be effectively used.

4.11.6 Managing a more fragmented budget

All of the participating banks were drawing upon digital communication technologies, and in some cases traditional media and in-branch digital screens in their advertising / marketing communications initiatives. As such, having to manage a multitude of advertising options and select the best combination for a specific campaign required a change in approach, thereby presenting a challenge. One manager elaborated on this issue:

> "So understanding that, okay, I am planning this marketing initiative, I have social media available to me, I have email available to me, I have the in-branch wifi available to me. How many of these do I use that are relevant in this particular thing I'm planning and what do I craft for each one? That's an adjustment. That's a new approach to planning and working, and that's where… I think that contributes to slower change. P1

4.11.7 The need for marketers to re-tool

Faced with so many changes as a marketer, the need for training was stressed in order to keep up with new developments and survive in the profession. One manager with years of previous experience utilising traditional media at an advertising agency shared the following reflection.

> "I guess to me one of the concerns and challenges is that, like where, where do you fall in the scheme of things. I had to ask my boss to do a digital marketing course at the XXX Marketing Association, because I was not equipped. I am an old marketer, made from the traditional school. So again, what an organisation will need to do is to upgrade the skills of their staff. And it's either they upgrade, or me personally, upgrade yourself, because you would not be able to survive." P18

From the data gathered it was noted that several of participants had undergone some form or forms of digital marketing training as a personal initiative. Moreover, one of the locally-owned banks paid particular attention to conducting internal training as well as exposing their marketing staff to international seminars on the latest marketing-related technologies.

4.12 Change

An emergent theme in the data which was not featured in the literature was the notion of change. Several participants made observations during the interviews revolving around the issue of change, including change in the marketing discipline resulting from ICT incorporation, the pace of change, the need to embrace change, the extent of change in marketing and the need for change management. In some instances the topic was raised in response to the question related to challenges encountered during the adoption and usage of ICTs. In others, it surfaced during the course of the discussion. After recapping major ICTs being used at her organisation especially digital communications platforms, P18 a traditionalist marketer remarked about the change in the marketing profession stating: "Marketing has truly, truly changed (chuckle)… truly, truly changed (chuckle)."

P2 viewed embracing change in marketing through the adoption and usage of ICTs as crucial to brand survival. This manager added the need for constant vigilance since ICTs and user responses also change.

> "I mean there are so many examples of brands that are no longer based on their, you know, inability to change, to see the future happening just before their eyes and to adapt. So if we don't do that then we are in some trouble. So we have to look at it and embrace it in all the possible ways because it keeps changing all the time, eh. You have to keep looking at your website and its useability and readability and ease of movement and how you…and I think that is a critical one." P2

Elaborating upon change in relation to the ICTs, P3 signalled the fickleness of social media marketing in a discussion on strategy.

> "But really truth and in fact, every three months, every three months I do a strategy in terms of advertising, content creation, content calendars, aamm for events and our business lines. But long term and in a five year plan I can't see it happening because the digital landscape is changing and evolving so much. So what may work in January will not work in June." P3

P6 voiced similar sentiments about communications media for sources of news.

> "I think it makes you realise that you have to more, with more frequency, re-examine your media mix, because things are changing, it's really you know, a whole shift. There was a period where everybody watched news, then everybody watched TV6 news, then everybody's watching TV6 and CNC3, so you have to split there. And then it became suddenly nobody is watching the news, or the target audience that it represents, our bulls eye, not watching the news at all, they're taking digital news, it's Loop (online news), or they're not interested in the news at all, or they're streaming, you know? So it really means that you have to very regularly re-evaluate your mix and how you are allocating your budget." P6

Apart from comments related to ICTs in communications, change was also evident in the structural adjustments identified by P1, P10 and P18 at their respective organisations. Further, participants from two different banks opined that the pace of the change occurring was a gradual one. For example, commenting on the technologies in general, P10 perceived the change related to ICT adoption and usage in his organisation as a gradual evolution.

> "For us because it's been gradual, you're looking at a change but to me my organisation and most organisations, they certainly have utilised technology, tools, facilities that are available, alright?" P10

A similar observation was made by P3 regarding the adoption and usage of digital channels at her organisation.

> "It felt like a cut and dry cause I did say cut and dry, but it was gradual shift because then obviously it's a mind change in terms of where we should assign budgets, compared to where we are right now," P3

On a different note, P14 assessed the challenges being encountered with the adoption and usage of ICTs at her organisation as originating from change management.

> "So, but I don't believe it's a technology problem. It's a change management problem (chuckle). And lack of information, lack of people understanding what value it can bring is key, for example, me." P14

She expanded by sharing her personal change journey moving from a position of no marketing experience to the steps taken over a four year period to gain proficiency in using ICTs in marketing. In light of all these excerpts, taken from cross-section of participants from four banks, it was evident that change emerged as a theme in the interview data.

4.13 Summary

This chapter comprised a presentation of the data analysis and findings generated from the online questionnaire and semi-structured interviews conducted with 19 participants from five case banks in Island-Nation. The questionnaire data showed that all the banks had adopted a range of ICTs into their advertising and promotions, products and services development, customer relationship management, research, internal marketing, distribution and sales channels, as well as operations. Digital marketing and organisational websites were identified as the most important advertising and communications tools across the banks. Similarly, technology-enabled banking products and services, particularly internet banking, mobile banking and credit cards were rated highly important to marketing strategies and efforts across all the banks. The interviews also disclosed a series of software and platforms adopted by the organisations, specific and non-specific to the marketing function.

Arising out of the interviews, categories related to the two major themes of adoption and performance were discussed. Within the adoption theme, major underlying reasons for adoption included the dyadic pressure from customer demand and banking suppliers/intermediaries, competitor activity, strategy, organisational size and structure, and performance needs. Apart from adoption drivers, the impact of ICT adoption on organisation structure and performance was discussed, as well as adoption as a process. Regarding the performance theme, measurement, impact, and optimisation were explored. Participants touted the measurement capabilities of digital communications technologies as a conduit to justifying marketing's contribution to their banks' business, since results of marketing initiatives could be performance managed. Notwithstanding, several barriers and challenges to adoption and performance optimisation were identified. Among these the need for customer data security and privacy stood out, as well as a lack of understanding about the value of marketing-ICTs. Moreover, technical issues stemming from the need for system upgrades presented challenges in several banks. Further, the risk of marketers becoming outdated in their profession was also raised as an issue.

Apart from adoption and performance-related themes, change was an emergent theme in the data. Sub-themes included change in the marketing discipline resulting from ICT incorporation, the pace of change, the importance of embracing change, the extent of change in marketing and lastly, the need for change management.

Chapter 5: Discussion

The purpose of Chapter five is to discuss the data analysis and findings in relation to academic literature, as well as the objectives of the study. This research was exploratory in nature in its quest to firstly identify ICTs adopted and used across marketing functions, secondly, to assess their importance and effectiveness, and thirdly, to discuss issues impacting upon managers' adoption and performance optimisation of these technologies. However, the research also had an explanatory component in its efforts to shed light upon underlying factors impacting upon ICT adoption and usage.

Accordingly, this chapter commences by reviewing the marketing context of the case banks as a prelude. It then progresses to identify ICTs adopted and used across marketing functions, assessing the perceived level of importance and effectiveness by marketing managers. Subsequently, major themes and categories surfacing from the interview findings are discussed. These included adoption sub-themes such as underlying reasons for ICT adoption, adoption impact on organisational structure, adoption as a process, and barriers and challenges to adoption. Performance sub-themes are also reviewed centering on measurement, cost effectiveness and optimisation, in addition to barriers and challenges to optimisation. The chapter then proceeds to discuss the need for marketers to re-tool as another sub-theme. Lastly, the discussion progresses to the issue of change which was an emergent theme in the findings. A summary is provided at the end of the chapter.

5.1 Marketing context

In this study two aspects of the firms' marketing context were considered relevant: their marketing approach and their market focus on retail and/or B2B. Marketing approaches were deemed necessary to buttress the study with marketing theory, while market focus was used as a delineator in many studies on ICT adoption (for example Agag, 2019; Duc et al., 2018; Michaelidou, Siamagka & Christodoulides, 2011; Barnes et al., 2005).

The findings of the current study demonstrated that four of the five case banks were utilising a blend of transactional and relationship marketing in the approach to managing their marketing functions, while one was purely relational. Moreover, their use of database, interaction, and network marketing -sub-components of relationship

marketing (Coviello et al., 2002)- further substantiated a relational approach. Relationship marketing was strongly linked to the services-oriented and B2B firm typologies, whereas it was posited that product-oriented and consumer goods firms tended to adopt a more transactional approach (Berry, 1995; Grönoos, 1994; Webster, 1992). However, the findings of the current study illustrated that the two approaches were not mutually exclusive. Despite being financial institutions engaged in the provision of services and having significant focus on B2B as well as B2C markets, the marketing managers from most of the case banks confirmed use of a transactional approach as well. As such, these findings corroborated those generated by Coviello et al.'s (2002) seminal research paper, a rebuttal of the transactional-relational dichotomy argument in the literature. Based on extensive empirical research, Coviello et al. (2002) showed that, in contemporary marketing practice, firms were either predominantly transactional or relational, or alternatively, using a hybrid of the two approaches to relate to their markets. In the current study, while most case banks used diverse approaches, a stronger inclination towards relationship marketing was detected from the data gathered.

In tandem with a strong relational focus, respondents from four of the five banks also confirmed the use of transactional marketing in their approach. The relevance of transactional marketing in contemporary marketing practice, characterised by the marketing mix or the 4Ps, has been the subject of significant query in academic discussion (Constantinides, 2008; De Marez et al., 2007; Grönoos, 1994). The current study showed that transactional marketing was still relevant for most marketing managers. While there was a downward trend in the managers' use of traditional media, and transactional marketing has leveraged traditional media for advertising and promotions, a lessening in the applicability of transactional marketing was not necessarily inferred since the two concepts are not equivalent. It is conceivable to use the marketing mix incorporating newer media channels or replacing the more established ones such as television, newspapers, and radio. Hence, despite marked cannibalisation of traditional media usage by digital media streams, the data showed that transactional marketing was still pertinent for most of the case banks. Other academics have made similar observations (for example Chaffey et al., 2019; Kokt & Koelane, 2013; Louise, 2018).

It was surmised from the findings that the blend of relational and transactional marketing approaches employed by the case banks provided a backdrop for the diverse range of ICTs being used by the marketing managers across their functions and in their practice. The linkage between the firms' marketing approaches and their deployment of ICTs in marketing is discussed in the following section.

5.2 ICTs used in marketing

The findings of the current study showed that in practice, managers from the five commercial banks were leveraging a selection of ICTs or ICT-enabled platforms and channels in their marketing strategies, as well as to undertake their functions. Technology usage was prevalent in several marketing areas namely: product and service development; advertising and promotions; and channels of distribution. Additionally, technologies were being leveraged to harness customer data for market insights and customer relationship management; internal marketing and collaboration; data analytics; market and internal research; sales management; and lastly, for overall efficiencies.

In the area of ICT use in the development of banking products and services, emphasis was placed on introducing novel payment solutions, with plans to introduce further innovations leveraging technological advancements within the global industry, for example wearable payment solutions. Additionally, managers across several banks expressed intentions to digitalise major customer processes for example, loan applications, for greater efficiency and to enhance customer convenience and customer satisfaction. This finding is aligned with the literature advocating ICT integration as a natural evolution for service industries (Häikiö & Koivumäki, 2016), and pinpointing banking as one of the sectors at the forefront of technological adoption (Koenig-Lewis et al., 2010). While none of the marketing managers in the study was directly responsible for product development since this function fell under the purview of another department, the importance placed on using ICTs for improved product and service offerings was clear from the questionnaire and the interview data.

Thus far, extant literature has shown that leveraging technology for product and service development has not been an area optimised by marketers, particularly those outside of the strictly-defined services sector. Indeed, it was surmised that there was an over-emphasis on the uptake of ICTs or ICT platforms for the purpose of advertising and

promotions and an under-utilisation of technology to enhance other marketing functions (Gutierrez-Leefmans et al., 2016; Naudé & Holland, 2004). The current research study therefore supplements the body of literature on technology use for new product and service development, asserting that it presents an opportunity for all marketers to exploit. Notwithstanding, it was notable that such integration may more than likely be impacted by cost considerations, as well as require collaboration with internal departments, for example operations and IT. This finding also lined up with academic research since the need for an enhanced skillset by marketers for effective ICT usage has been highlighted, comprising collaborative, interpersonal and other skills (Coviello et al., 2002; Naudé & Holland, 2004).

Another area where usage of ICTs by the marketing managers was prevalent was for advertising and promotions or marketing communications, particularly digital marketing channels such as social media, interactional websites, and email. These channels are all reliant upon internet technology, specifically web 2.0, which enables two-way, 24/7 communication with customers and other stakeholders (Kargaran, Jami Pour & Moeini, 2017; Pestek & Cicic, 2010; Sharma & Baoku, 2013; Schueffel & Ioan-Iustin, 2015), as opposed to the uni-directional forms of communication utilised by firms to push desired messaging. This finding parallels scholarly work demonstrating an upward trend in the use of interactive media by firms at the expense of traditional media (Barwise & Farley, 2005). However, academics have highlighted that a consequence of this liberated communication was consumer empowerment (Constantinides, 2008) whereby consumers' voices grew on social platforms and not all feedback was positive, potentially resulting in reputational risk (Icha & Edwin, 2016). The findings of the current research confirmed this occurrence, but moreover, they demonstrated how most case banks were using technologies (listening platforms) either in-house or with the support of a digital agency, to monitor brand mentions online and proactively manage unfavorable situations. The notion of adopting ICTs to manage the outcomes of other ICTs was not apparent in academic research and appeared to be a novel contribution to the literature.

A third way in which ICTs were incorporated into marketing at the banks was through internet-enabled channels of distribution or service delivery via the introduction of electronic banking platforms, including mobile applications. These platforms facilitated consumer banking transactions, affording better convenience. However, they also

enhanced the case banks' B2B service through the facilitation of payment devices and systems to business customers, thereby enabling the latter's engagement in e-commerce – a relatively new development in Island-Nation. Academic research has underscored the advantages of e-BB including improved efficiencies for the service-provider and the enhanced convenience of 24/7 access for customers (Narteh, 2012; Okeke et al., 2015; Sanaz & Rabi, 2013; Thulani et al., 2009). Notwithstanding benefits, a high level of firm responsiveness is an inherent customer expectation of electronic transactions. In order to meet these expectations it was signaled in the interviews that offering e-BB services had the repercussion of putting pressure put on banks' backend operations, including technical and other resources in order to ensure timely fulfillment of customer transactions. The impact of e-BB services on backend operations has received scant academic focus thus far (for example Sousa, Yeung & Cheng, 2008). However, this area warrants further examination since it impacts upon marketers' ability to deliver upon e-BB promises to customers.

A fourth way in which the case banks were leveraging technologies was in their focus on customer relationship management to facilitate a relational approach. Several banks in the study did not have an optimal CRM system in place. However, recognising the importance of the CRM function, they were leveraging some form of software, or database technology or conversely, making the best use of a CRM system that either needed updating or to be fully integrated. This finding is consistent with the strong linkage between the use of CRM-related technologies and the relationship marketing approach noted in other scholarly works (for example Abtin & Pouramiri, 2016; Wahab et al., 2010). The technology enables gathering individual customer data necessary for effective customer relationship management (Abdul et al., 2013; Al-Weshah, 2017). It was also noted that in all cases the CRM function did not fall under the purview of marketing, but rather the IT or ICT department. For the North American or regional headquartered banks, CRM was housed outside of Island-Nation. Either way, marketing's use of CRM data once again implied the need for intra-organisation collaboration.

A fifth way in which ICTs were being used by the marketing managers was to enhance internal marketing efforts. The specific technologies included usage of an intranet and video-conferencing facilities. All the case banks were large-scale, even the case bank with the smallest operation in Island-Nation was part of a larger organisation with

significant reach within Latin America. The large size dictated the need for various ICTs for efficient internal communications, particularly in those organisations considered as matrix-configured with departments located in different countries. Organisational factors including size and structure have been noted by researchers to influence the adoption of ICTs (Awa et al., 2010; Levenburg, Schwarz & Motwani, 2005). Hence, the current research added to the body of knowledge making this assertion.

Another category of ICTs being used by the marketing function was tools to enable and enhance data analytics / data mining / data warehousing. Several marketing managers stressed the importance of being data-driven, especially since digital technologies enabled tracking and measuring the outcomes of marketing initiatives – a feat hitherto difficult to accomplish. Moreover, the need to extract relevant information and gather insights from the data was also highlighted. In response, several of the banks had ramped up resources to fortify their data analysis capabilities. This finding of enhanced data focus in marketing reinforces other scholarly work. The significant impact that data generation and analysis has had on marketing was featured in academic literature (Audzeyeva & Hudson, 2016). To emphasise this point, the assertion was made that marketing was in the information age (Holland & Naudé, 2006). Two inferences arise from the increasing reliance on data. First, there are implications for marketers' skillset and the need for practitioners to be adept at data analysis. Second, it was posited during the interviews that the "measurability" of digital channels was being leveraged by marketers to justify marketing's real contribution to the business and thereby, elevating the status of the discipline. Amid criticism that the marketing was losing its importance and standing in the firm due to a lack of a strategic focus (Baker, 2013; Constantinides, 2008), this observation was positive for the status of the discipline.

Apart from the aforementioned ICTs, electronic surveys were being used to undertake market research on external customers as well as employee surveys for data capture from internal customers. In separate instances, the use of a sales management tool was highlighted by one bank and agility software by another. ICTs were also being used by marketers to enhance operational efficiencies via software, platforms and applications implemented throughout the organisation, that is, not exclusive to marketing functions. Examples of these types of ICTs included project management tools, and those which enabled the storage and sharing of large data files including graphic work.

This review of ICTs has provided some insight into the extent to which technologies have filtered into the practice of marketing managers, either directly into their functional areas or indirectly, through administrative or efficiency tools implemented throughout the organisation. It was gleaned from the survey results that there was a high level of homogeneity in the banks' deployment of technologies within marketing. This trend was also observed on the issue of the importance placed on these technologies. Digital marketing was assessed by all the banks as not only being very important, but also of strategic value. Similarly, using ICTs in products and services such as electronic, mobile and internet banking was also very important to the banks, providing another area where technology was leveraged in strategic efforts. For the most part, the ICTs deployed within marketing were evaluated as being effective. The high level of similarities may be attributed to structural factors impacting upon all the organisations, especially the banking industry, the market, and the Island-Nation / Caribbean cultural context.

5.3 Underlying reasons for adoption

The study findings revealed that the major reasons for adopting ICTs in marketing stemmed from seven areas. These spanned: customer-centric factors; technology factors; competitive pressures and industry developments; organisational size, structure and functions; performance enhancement; risk and reputation management; and strategy. These outcomes were aligned with the findings of academic research in the field of ICT adoption in marketing literature as outlined below.

Customer, competitor, supplier, and industry pressures emerged as common factors influencing the adoption of ICTs by the case banks, especially in three areas: e-BB; product and service development including payment solutions; and digital media channels. These comprised external environmental factors well noted in academic research to exert varying degrees of influence and pressure on firm adoption of ICTs (Awa et al., 2010; Chien et al., 2013; Gorla et al., 2017; Opoku et al., 2016; Rahman et al., 2020). Emanating from theories like the Tornatzky & Fleischer's (1990) TOE framework (Shaltoni, 2017) and Porter's five forces (Chien et al., 2013), academic researchers have long recognised the impact that exogenous factors have had on the

adoption of ICTs by firms. Therefore, the study findings provide further evidence to confirm this claim.

Similarly, organisational factors have also been linked to technology adoption. Firm size, structure, strategy, and the need for performance enhancement were evident in the current study. On the issue of size, previous research has demonstrated that larger organisations were more likely to adopt technologies than smaller ones due to having greater financial, human, and technical resources (Levenburg, et al., 2005). All case banks were classified as large given employee bases vastly exceeding the Organisation for Economic Co-operation and Development's [OECD] 250 employee threshold (OECD, 2020). Moreover, at least two of them availed the additional support of North American resources. Hence, it was reasonable to surmise that organisational size, more specifically resources, was a contributing factor to the extensive scope of ICTs adopted and used within the case banks' marketing, as identified previously. Similarly, the banks' structural characteristics attributed to size and in a couple cases, the dispersed matrix configuration, also impacted upon the need to adopt technologies (collaborative, communication and project management tools) to facilitate effective internal marketing and work relationships. Though organisational structure was conceptualised as an adoption driver in the 1990 TOE framework (Baker, 2012), academics have extended the discussion to examine it as an adoption impact (for example Strebinger & Treiblmaier, 2006).

Performance enhancement in the areas of cost effectiveness, efficiencies, productivity, and customer satisfaction was another source of motivation for the case banks to adopt ICT-enabled channels of distribution such as electronic banking and mobile banking, as well as digital media channels. The prospect of performance improvement as a factor influencing technology adoption was captured in studies, albeit implicitly in some cases (Lorenzo-Romero et al., 2014; Nath, Schrick & Parzinger, 2001; Shahzad et al., 2020; Upadhyay et al., 2018). Similar to organisational structure, performance-related factors were mainly examined as an impact of technology adoption. Related to performance enhancement was the issue of strategic direction and strategy. Marketing managers across four of the case banks cited the leveraging of ICTs as pivotal to their organisation's strategic direction, centred on customer satisfaction, innovation and targeting particular demographics. This strategy thread influenced the firms' adoption of customer-facing ICTs such as e-BB, mobile banking, novel payment solutions and

digital media channels. Few studies in the literature addressed strategic direction and strategy as an adoption driver for firms (Lorenzo-Romero et al., 2014; Nath et al., 2001; Vilaseca-Requena, Torrent-Sellens, Meseguer-Artola et al., 2007). Moreover, researchers have posited that many firms using social media platforms had no marked strategy and there were resulting performance implications (Icha & Edwin, 2016; McCole & Ramsey, 2004). Hence, the study findings added to the limited body of knowledge on strategy as an adoption determinant.

Technological factors comprised another reason underlying the adoption and usage of ICTs by the banks. On the one hand technology advancements within the industry were a natural precursor to and enabler of adoption. This inclination was raised in the TOE framework (Baker, 2012) and confirmed by other academics (Scupola, 2003). On the other hand, the features of ICTs, particularly software, also influenced adoption decisions, including data security, versatility, compatibility (with existing software), capacity for integration, and relative advantage over other alternatives. Various factors related to technology have been noted in mainstream academic research to influence adoption (Awa et al., 2010; Eze et al., 2013; Opoku et al., 2016; Shaltoni, 2017). Therefore, the study findings coincided with adoption literature in this regard.

It was noteworthy that the adoption of some ICTs was prompted by the need to control and manage spinoff effects of other technologies. For instance, to successfully engage in social media, several of the banks found it necessary to adopt monitoring and listening tools to manage any adverse comments made online about their brands. Hence, risk and reputation management, or control measures, also influenced adoption. While the literature addressed consumer empowerment as a consequence of interactive technologies (Constantinides, 2008; Pestek & Cicic, 2010; Pires et al., 2006), the notion of requiring ICTs to manage the outcomes of other ICTs appeared to be novel in research of this nature.

5.4 Adoption impact on organisational structure

Structural repercussions emanating from the adoption and use of ICTs in marketing, as well as the desire for performance optimisation were prominent at three of the case banks. Two of these organisations stepped up their marketing capabilities in the areas of analytics, digital marketing, data mining, and content development through the

acquisition of human and other resources. Alternatively, the service was outsourced to digital providers. Conversely, the third bank reduced marketing staff as a result of efficiencies obtained through ICT adoption and usage, and also had internal shifting around within the marketing functions. However, it was possible that the adjustments may have stemmed from additional factors beyond the adoption of technologies. The fourth bank consolidated its marketing and communications functions which had been separate units before, and the issue of the impact on backend operations was raised, particularly in relation to e-BB. There was no indication of structural impact resulting from ICT adoption and usage at the fifth bank, possibly due to the support of foreign resources and the limited cadre of local marketing personnel on the ground.

The idea that ICT adoption in marketing had structural implications for the organisation has been broached in the literature (Strebinger & Treiblmaier, 2006). However, not many studies have investigated the impact of ICT adoption on marketing's structure. Some researchers made a contribution towards filling this gap by addressing the impact of e-commerce on brand architecture, IT department (marketing-related) and organisation structure – three areas previously studied by researchers, but in isolation (Strebinger & Treiblmaier, 2006). However, the current investigation offered a further contribution by highlighting structural effects across the span of marketing functions. These findings were significant because they provided insights into structural adjustments being made within marketing in order to make effective use of technology adoption. The addition of analytics, digital marketing, data mining, and content development capabilities, as well as backend support, constitute structural changes being made within marketing and marketing-related areas, aimed at enhancing marketing performance through the adoption and usage of ICTs.

5.5 Adoption as a process/stage

The conception of adoption as a process undertaken in stages surfaced in the interview data. Participants from the two locally-owned banks stated that their organisations were in the infancy stage of ICT usage in marketing. This assessment was supported by situations of technology upgrades, updating, transitioning and full system integration. It was surmised from this observation that the banks had not yet attained the full potential of the technologies adopted within marketing. ICT adoption in the marketing sphere has been noted to unfold in stages, particularly e-BC, where firms progressed through

informational to interaction and ultimately transactional websites, or to an overall business transformation (Brand & Eelko, 2008; Catharina & Strandvik, 2014; McCole & Ramsey, 2004). Further, the literature posited that adoption drivers and process varied depending on the stage of adoption (Brand & Eelko, 2008). Therefore, not only are the results of this research consistent with extant literature, but they also suggest the applicability of a process and staged approach to the adoption of ICTs as a whole, within marketing, not just limited to e-BC and websites.

It was gleaned from the data that the two banks with North American headquarters availed more advanced technologies and were at a more developed stage of implementation and usage. This disparity between the locally and foreign-owned banks alluded to the digital divide whereby the capacity of lesser developed countries to leverage technologies has been posited to lag behind that of their more developed counterparts (Hinson & Sorensen, 2006; Raven et al., 2007). However this advantage was somewhat tempered in the Island-Nation commercial banking context, since both locally-owned case banks had significant physical and financial resources vested in the market.

The research findings also indicated that prior to initial adoption, case firms went through a process of ICT selection. This preliminary review incorporated activities such as conducting research, environmental scanning for latest technologies, vetting different options and, as this study revealed, pilot testing, market testing, and trial and error. Academic research has acknowledged this pre-adoption process (Rogers, 2003), as well as the process of adoption as a whole (Mohamed & Mourad, 2014). Therefore, the study findings are not only aligned with the literature, but also provide insight into the activities undertaken by marketers before embarking upon technology adoption.

The issue of the individual marketer's adoption of technologies, individual adoption rates and diffusion, as factors impacting upon performance optimisation arose in the data. For clarity, this problem did not pertain to the initial stage where the banks took the decision to adopt selected ICTs, but rather to the usage stage where the technology had to filter down and across the marketing and other related departments. Therefore, the inference is that a process is involved to progress from firm adoption, to individual adoption and by extension diffusion of technology usage. This process was captured by Rogers' (2003) DOI theory which demarcated between initial ICT adoption by the firm

and implementation of the ICT which involved usage. This theory identified five perceived technological characteristics influencing the individual adoption rate of an ICT: relative advantage, compatibility, complexity, trialability and observability. Few research pieces examined the issue of technology diffusion across users within the firm (for example Mohamed & Mourad, 2014; Upadhyay et al., 2018). Hence, the current research supplements extant knowledge in this area.

The data illuminated the existence of a gap between firm and individual adoption in one case bank. However, this sole discovery was not indicative that similar problems did not occur in the other organisations, since only one of several participants within the particular case bank raised the issue. It was gleaned that the reason for highlighting this problem was due to the participant's prior internalisation and analysis of the situation. The manager had experienced firsthand and overcome challenges related to connecting the technological dots, particularly related to non-customer-facing technologies, in the quest to improve personal marketing performance. The participant was able to achieve this by taking the initiative to undergo formal training, complementing the training with hands on practice, in addition to conducting personal research on the ICTs for better understanding. From that enlightened standpoint the respondent realised that she had progressed further along the learning curve to leverage ICTs for performance optimisation than some of her colleagues.

Additionally, applying some of the DOI and TAM concepts, it appeared as if the relative advantage over existing IT systems and the perceived usefulness had not been effectively conveyed to participant users. Also, it was gleaned that the complexity of the technologies and time required for assimilation and incorporation into practice may have served as deterrents to individual adoption and usage. These findings were significant because thus far, the gap between firm and individual adoption had not been the focal point of much academic enquiry within ICT adoption in marketing. Moreover, this gap could be exacerbated depending on the size of the organisation leading to extended adoption rates and sub-optimal marketing performance.

5.6 Adoption - barriers and challenges

When questioned on the issue of challenges or difficulties regarding the incorporation of ICTs into their field, the initial reaction of most respondents was that there were none.

Moreover, no participant conveyed any reluctance towards adoption of the technologies. Instead, they all had a positive attitude towards leveraging ICT capabilities for greater efficiencies and enhanced performance. This reaction contradicted those of Brady et al. (2008) and Kokt and Koelane (2013) which noted reluctance by marketers towards ICT adoption. Several factors could account for this positive reaction by marketing managers from commercial banks. Firstly, since technologies have been engrained into the financial services sector (Kok Lian, 2017) there was an easier transition towards incorporating them into marketing at the banks, particularly customer-facing technologies. Secondly, the organisations may have provided some training and exposure to facilitate the use of the ICTs. Thirdly, with respect to social media, marketers' personal use of popular platforms such as Facebook and Instagram could have alleviated the transition to use for work purposes. Some researchers have alluded to this connection between personal use and work use of social media (Lorenzo-Romero et al., 2014).

Notwithstanding their initial reaction, upon further probing, marketers from the five case banks identified barriers and challenges affecting the adoption and use of ICTs in marketing. Predominant among these was the security and privacy of customer data and customer transactions, as well as the risks involved in using digital channels directly, and through third parties. Studies have shown where security concerns had a significant impact upon consumer uptake (Hua, 2009; Polasik & Wisniewski, 2009; Popoola & Arshad, 2015; Singh et al., 2016) and business uptake of e-BB (Thulani et al., 2009). Hence, the study findings reinforced security and privacy as a pertinent issue for e-BB adoption. However, due to the nature of their business and the sensitive, confidential information they gather from customers and store, banks implemented layers of protective controls to safeguard this data. These layers of controls, while necessary, could also have the adverse effect of slowing down processes thereby countering some of the efficiencies expected with ICT adoption. One participant highlighted this issue. The findings therefore demonstrated the complexity of the security and privacy issue, elaborating on potential pitfalls in attempting to circumvent it.

Apart from the many controls related to data security, legal restrictions preventing commercial banking marketers from targeting potential customers from certain countries was also cited as a challenge by one marketing manager. This participant noted that such issues did not arise at the multinational consumer goods retailer where

she had previously worked. The legal challenge specific to marketers of financial services companies has been observed in the literature (Moffett, Crick, Stone & Jerome, 2002). As such, it presented another way in which study findings mapped on to existing research, highlighting unique challenges for financial services marketers seeking market expansion.

The significant investments required to obtain desired technologies also presented a financial challenge to the banks. It was deduced that the cost factor had greater implications for the locally-owned banks given relatively smaller-scaled operations in comparison to their foreign-owned counterparts availing large North American markets. Studies have also raised the issue of cost as a challenge to the adoption and implementation of ICTs in banking (Narteh, 2012; Thulani et al., 2009). It was noteworthy that these studies were also undertaken in developing countries (Ghana, Zimbabwe), indicative of the significance of the macro-economic context within which technology adoption occurs.

In addition to security concerns, legal restrictions, and high costs, the issue of a lack of understanding was another challenge raised by participants representing three of the large case banks. In one case it was surmised that the lack of understanding stemmed from the perception by manager-colleagues that the personal time and effort required to incorporate new ICT platforms into work practices outweighed the value of adopting the technologies. Moreover, the environment was high-paced with tight deadlines, and existing systems including "branch machinery" had been leveraged for many years for positive performance results. In the second case, there was a misconception by managers and executives about the requirements, cost and success factors for using digital platforms such as social media and email effectively. In the third case, the lack of understanding was attributed to a broader issue of the decision-makers in the organisation not comprehending how much marketing had evolved and therefore were less inclined to support the investment in marketing technologies and budgets for digital marketing. The participant commented that the situation had improved but still noted the lack of understanding as a challenge. This problem of a lack of understanding by marketers, as well as managers and decision-makers, particularly in relation to social media was touched upon by some researchers (Jussila, Kärkkäinen, & Aramo-Immonen, 2014; Michaelidou et al., 2011). However, the study findings delved further into this issue illustrating that it transcended usage of a particular ICT to being a broader

problem affecting ICT adoption as a whole within marketing. The observation was made therefore that lack of understanding by users and decision-makers posed a significant challenge to be considered in technology adoption efforts.

5.7 Performance measurement

The most acclaimed impact of ICT adoption and usage in the findings was the ability to measure the results of advertising and promotions (or marketing communications) initiatives using digital channels. Social media, email marketing and Google advertising were increasingly being used as alternatives to traditional media advertising and mail using letters. Marketers underscored the benefits of these media channels which included cost effectiveness, personalisation of messaging, enhanced market responsiveness and above all, the ability to track the effectiveness of campaigns through metrics such as the number of leads and lead conversions. The ability to show tangible results of marketing initiatives was elusive with traditional media such as television, newspapers and radio. In contrast, digital channels enabled marketers to demonstrate more effectively their contribution to business. Further, the ability to track and measure led to enhanced marketing performance. The growing usage of social media metrics and tracking features by firms to follow up leads and support the justification of marketing expenditure is in its embryonic stage in the literature (Icha & Edwin, 2016; Michaelidou et al., 2011). Accordingly, the study findings are consistent with extant research in this area confirming the positive impacts being derived by marketers from digital marketing measurement and tracking features.

It was noteworthy from the findings that the measurability and other features of social media appeared to place marketing and marketers in a stronger position within the organisation despite being a tool used predominantly for advertising and promotions. Scholars have asserted that too much attention was being paid to the Promotions "P" in marketing and moreover, that this approach was tactical as opposed to strategic, distracting marketers away from more significant issues and diminishing marketing's role and status in the boardroom (Baker, 2013; Hinshaw, 2005). However, due to the capabilities of digital marketing communications channels, the outcome of this research has demonstrated otherwise. Firstly, as indicated in Chapter four, digital marketing communication channels were either being leveraged in a strategic way or directly linked to strategy by the marketers of the case banks. Secondly, rather than lower

marketing's position in the boardroom, it was perceived that marketing was in a stronger, more elevated position now within the organisation, being able to deliver tangible results, justify expenditure, increase market responsiveness and make better data-driven decisions. Hence, despite being a tool used mainly for marketing communications, the measurement feature, strategic use and cost effectiveness of digital channels, in particular social media, was perceived by managers to enhance marketing's contribution to business. This finding was significant for the status and development of the discipline.

5.8 Cost effectiveness

Apart from the feature of being able to track and follow up on customer responses through digital channels, marketers across the five case banks highlighted the cost effectiveness of digital media channels in comparison to traditional media. As a result, in all cases there was a reduction in television and to a lesser extent newspaper advertising from 2016. With the exception of radio -the most economical option still heavily utilised by the public due to heavy traffic conditions in Island-Nation- the other two mass media options, television and newspapers were criticised by several marketing managers. These criticisms were made on the basis that they were expensive and no longer had the former reach once afforded, due to widespread uptake of social media and other digital platforms by the population. Moreover, the range of radio stations enabled market segmentation.

Resulting from their assessment of traditional media several marketing managers shared that their current marketing expenditure ratio was in the vicinity of 50% - 70% for traditional media and 30% - 50% for digital. Many saw further skewing towards digital in the future. These percentages signified the re-allocation of marketing budgets to increasingly cater for usage of digital media channels. The trend towards digital is aligned with the findings of academic research (Barwise & Farley, 2005). However, the findings also suggested that while digital marketing was growing, thus far most marketing managers still saw a role for traditional media. Hence, the findings confirmed the relevance of traditional media and the role it still played, especially within the current Island-Nation, and perhaps even in the broader Caribbean context. Therefore, the significance of context, in particular culture, was inferred as a factor influencing ICT uptake. Researchers have zeroed into culture as a factor influencing ICT adoption

(Berthon et al., 2008; Hajiyev & Chang, 2017). As such the study findings complemented existing knowledge in this area. Notwithstanding the trend away from traditional channels, all the managers qualified that the selection of new and / or traditional media varied in accordance with the campaign, product, country market or market segment they sought to reach, in accordance with core marketing principles.

5.9 Optimisation

The findings indicated that one case bank was leveraging ICTs to raise the performance bar by transitioning to agile marketing. Despite having its marketing function dispersed, this organisation was leveraging technology to improve efficiencies by reducing turnaround times for deliverables for example, service level agreements (SLAs). While performance emerged as a theme within the literature on ICTs in marketing, the notion of leveraging ICTs for marketing performance optimisation or maximisation did not receive great focus. Optimising performance seemed to warrant separate attention because ultimately this is the goal of business and the raison d'etre for the incorporation of technologies into marketing practice. Therefore emphasis on performance optimisation ought not to be overshadowed by the hurdles encountered during the early stage of ICT adoption and usage. Additionally, due to the relative novelty of digital marketing, marketers from several of the case banks were employing a testing, or trial and error approach where feasible, to determine what ICT or marketing initiative / campaign using an ICT-enabled platform had the best impact. Through testing, efforts were being made to ascertain optimal media mix configurations for specific types of campaigns. This testing was illustrative of the managers' quest for optimisation in the scheme of selecting the most suitable media channels.

Few studies investigating ICTs adopted and used in marketing addressed the issue of leveraging technologies for performance optimisation (for example Audzeyeva & Hudson, 2016; Hernandez et al., 2010). This observation is perhaps reflective of the current state of technology adoption in marketing. Hence research may trend towards performance optimisation as marketing progresses to a more mature stage of its ICT adoption journey. Notwithstanding, given the dearth of research in this important area, the study findings add to existing knowledge by demonstrating ways in which technology could be used to optimise marketing performance.

5.10 Performance optimisation - barriers and challenges

The notion of barriers and challenges to performance optimisation added to extant literature since prior academic works were confined to barriers and challenges to ICT adoption (Chitura et al., 2008; Ramsey et al., 2003; Thulani et al., 2010). Participants recounted several barriers and challenges detracting from performance optimisation of the adoption and usage of ICTs. Among these, technical issues, the adequacy of backend operations, marketer's individual adoption rate and the complexity of digital media were highlighted. These factors are discussed in this section.

5.10.1 Technical issues

Several marketers in the study raised the issue of IT systems needing to be upgraded or fully integrated or phased in within their organisation. This situation was having an adverse impact upon their performance. It was gleaned from the interviews that the root cause of this problem was really cost. ICT upgrades required further investments in technology, which the organisations were managing on a phased basis. Cost considerations and financial restraints have been identified in the literature as a significant inhibitor to technology adoption (Heng-Sheng & Gururajan, 2007; Ruiz-Molina et al., 2010; Thulani et al., 2009). Moreover, the scale of operations especially for locally-owned banks, although considered large in the Island-Nation and Caribbean context, would be dwarfed in comparison to the larger parent company banks from developed countries. In this regard, the North American-owned case banks would have had the upper hand in terms of access to investment resources since their larger scale of operations would enhance the feasibility of ICT investments.

Differing levels of financial resources between the local and foreign-based banks also raised the issue of the digital divide, that is, the disparity in the level of ICT penetration in developed versus developing countries. The latter lag behind in technology adoption and therefore do not derive the same level of economic and social benefits (ITU, 2015; Simon, 2004; Wresch & Fraser, 2006). Zeroing into the banking sector, larger international banks would have a greater propensity for ICT adoption than those from developing countries. Indeed, one respondent confirmed that her parent company bank was much more advanced in the kinds of ICTs being adopted and introduced onto its

North American market in comparison to Island-Nation. Another respondent indicated that her bank had defined itself as a technology company within the banking sector.

It could be inferred from this situation that the level of ICT adoption was more advanced for the foreign-owned banks, and further, that marketers immersed in this type of environment may be inclined to develop greater ICT adoption and usage proficiencies, ultimately redounding to enhanced performance. Hence, the study findings alluded to the effects of the digital divide whereby marketers from the Caribbean may be technologically disadvantaged compared to their counterparts from developed countries. However, despite this situation, there was no marked difference among the banks' technological offerings on the local market, perhaps indicating that country factors played a moderating role. As such, the study findings add to extant literature on the digital divide, demonstrating how its impact is lessened when technologically-advanced, foreign firms compete with progressive local firms in a developing market.

5.10.2 Adequate back-end operations

The point was made during the data gathering process that while digitalisation of banking products, services and customer communications impacted positively on customer interface and front-end operations, it also presented a challenge. On the positive side, customer responsiveness improved, it enabled greater customer convenience and by extension enhanced customer satisfaction. On the adverse side, faster customer interfacing and improved responsiveness put pressure on backend operations for fulfillment. Lack of fulfillment or extended time periods for service delivery would lead to customer dissatisfaction. However, improving backend operations also required ICT upgrades thereby raising the issue of cost once more. Therefore, banks have to find the balance between making promises in their marketing efforts and being able to deliver on those promises. By highlighting the significance of backend operations in fulfilling marketing's promises to customers, the study findings identify another challenge to technology performance optimisation in marketing. Additionally, this scenario implied the need for effective coordination and collaboration between Marketing, IT, Operations and any other department involved in product and service delivery. The need for enhanced collaboration between Marketing and other departments has been highlighted in the literature (Brady et al., 2008; Neill & Richard,

2012; Schlegelmilch & Sinkovics, 1998). Therefore the study findings corroborate this assertion made by other researchers.

5.10.3 Reducing the marketer's adoption rate

A salient point emerging from the data analysis was the significance of lowering the technology adoption rate by individuals. From the insight of the manager raising the issue, each individual (within marketing) appeared to be on a personal trajectory for adoption of ICTs, trying to figure things out and connect the technological dots while simultaneously trying to keep his / her head above water in a fast-paced environment. It was gleaned from this discussion that a grey area existed in the efforts to effectively filter down from firm adoption to user adoption which needed to be addressed. Also, it was reasonable to deduce that the wider the gap and the longer the time period to address, performance would not be optimised. Few studies addressed challenges faced in diffusing technology to individual users within the firm (for example Mohamed & Mourad, 2014). As such, the research findings provided insights into this important issue.

5.10.4 The complexity/advent of digital technologies

The benefits of digital technologies (for example e-BB, social media and email) were duly recognised by participants, including cost effectiveness, market responsiveness, measurement and tracking capabilities, as well as enabling one to one relationship development with customers on a mass scale. Despite these advantages, the notion that they were also more complex to manage than traditional media was also sobering. Several managers highlighted that some of the criteria for leveraging social media platforms included effective content management, maintaining engagement, as well as vigilant monitoring for untoward conversations with the potential to cause reputational risk to the bank. Given the relative novelty of social media platforms it was not surprising that academic research on this ICT is in its nascent stage. As such, these findings shed light on some of the success factors for using social media. They support the observations underscored by other researchers to derive optimal benefits from social media platforms (see Kargaran et al., 2017; Icha & Edwin, 2016).

Academics have also recognised that one impact of “always on” technologies was the greater time required to manage them (Smutny, 2015). Additionally, one participant with significant experience in using traditional media signaled that advertising on digital media was more difficult to get right. While traditional media had been mastered by marketers over decades, the newness of digital implied that marketers were still trying to perfect it by preparing and testing several versions of advertisements on the platforms to see which one achieved the best traction. Additionally, the manager expressed scepticism about the apparent economy / cost effectiveness of digital advertising given the additional costs of preparing artwork alternatives and the expenditure required to obtain the desired reach. Moreover, the relevance of the data spawned by social media was also queried. Previous studies have acknowledged that one of the challenges faced by marketers in their efforts to leverage social media was making sense of the data generated (Icha & Edwin, 2016; Louise, 2018). Hence, the findings corroborated these observations and also emphasised the need for insights into suitable performance metrics in managing new media.

Since all of the banks still maintained some usage of traditional media in addition to digital channels, the end result was more communications channels to manage and a more fragmented budget. Participants had varying perspectives on this amplified offering in marketing communications channels. On the one hand it was viewed as giving marketers more flexibility by putting more options on the table when planning marketing initiatives. On the other hand, it presented a challenge to the marketer to select the best number and mix of channels for a given campaign. Another viewpoint was that increased channels underscored the need for integrated marketing communications more than before. Hence, these findings highlighted the challenges faced by marketers as they strived to optimise performance using the increasing range of digital media while delivering unified messaging. Similar issues have been highlighted in research (Louise 2018; Smutny, 2015).

Altogether, these challenges to effectively manage social media platforms signify more work and greater resource requirements from marketers and marketing. A resulting overload was experienced by a participant in one organisation. In other organisations in-house digital teams were established and agencies were contracted, signifying additional costs. To the best of this author’s knowledge, the potential overload for marketers arising from engagement in digital marketing has not been examined in academic

research. Therefore, the study findings illuminate this adverse consequence of new media marketing.

5.11 The need for marketers to re-tool

The need for marketers to re-tool was a crucial point emerging from the interviews. This issue was highlighted in the cases of the marketers with significant experience using traditional media either through former work experience in an advertising agency, or via marketing in an FMCG environment, or working for a multi-national consumer-goods retailer. These managers recognised that they were from the "traditional school" and through personal and / or company efforts embarked upon training in the field of digital marketing to build competencies in this area. Several researchers stressed the need to re-visit the skillset required by marketers with the advent of ICT adoption increasingly permeating into marketing practice (Brady et al., 2008; Kokt & Koelane, 2013; Naudé & Holland, 2004). Notwithstanding the growing usage of digital as opposed to traditional media, digital marketing training represented re-tooling specifically in the area of advertising or marketing communications. In contrast, not much emphasis was placed on training to enable assimilation of the connections between other technologies, particularly the non-customer-facing ones. As indicated previously, scholars have flagged marketers' inordinate focus on "P" for promotions at the expense of the other marketing priorities and other ways to leverage ICT for enhanced performance (Baker, 2013). The focus on training limited to digital marketing may have contributed to marketers' difficulty in seeing technological linkages and the value of the other ICTs adopted by their banks for performance enhancement.

Marketers' focus on digital marketing could be perceived as a perpetuation of the "P-for-promotions" preoccupation only using different media, that is, digital instead of traditional. However, the difference is that digital media platforms are driven by web 2.0 capabilities and as such they are more versatile, more powerful, responsive, and avail more dimensions than traditional media, having the potential to be used for gathering market feedback, generating customer knowledge, fostering customer relationships and a host of other benefits (Icha & Edwin, 2016). Notwithstanding the sensation, seduction and growing proliferation of digital marketing drawing marketers to enhance their skillset in this area, there is also the need for marketers to enhance their knowledge about other important ICTs in marketing, for example CRM and other non-

customer-facing technologies and how they all relate and connect, in order to achieve performance optimisation. Accordingly, the study findings contributed to the body of literature advocating the need for marketers' skills set to be revisited. Further, it provided insights into the type of skills and training needed for performance optimisation.

5.12 Change

Change was an emergent theme in the findings, surfacing across four of the case banks. It arose in varied contexts namely: transformation of the marketing discipline; changing consumer consumption of media; the pace of change; and the need for change management within the organisation. Initially the change theme seemed at odds with academic literature on ICT adoption and usage in marketing, given scant, nondescript treatment. Upon closer inspection however, traces of this theme were detected in the literature. For example, Rogers' (2003) DOI refers to change agents and could essentially be considered a theory of change. Additionally, one research study drew upon constructs from change management literature to investigate organisational factors affecting the successful implementation of business intelligence applications in the banking sector (Audzeyeva & Hudson, 2016). Also, resistance to change emerged as a challenge to SME adoption of internet web marketing (Louise, 2018). Researchers have investigated change of strategy, management and marketing as an impact of e-business use (Bordonaba-Juste et al., 2012). Further, attitude toward change was investigated as a factor affecting the adoption of web-based ICT in a B2B setting, though it was rejected in the study results (Mohamed & Mourad, 2014). Indeed, the idea of ICT use in marketing changing the business environment was contemplated decades ago (Schlegelmilch & Sinkovics, 1998), albeit without empirical support.

In light of the foregoing examples, it was deduced that change appeared to be a latent theme in the ICT-in-marketing literature. Combined with empirical evidence from four of the case banks in this study, the change theme, in relation to ICT adoption in marketing, warrants closer academic attention. Indications thus far have suggested an indirect, contextual relationship between change, and technology adoption and usage. Hence, the study findings have highlighted a dimension hitherto downplayed and implicit in adoption research, but which is arguably the most pervasive factor surrounding ICT adoption and usage.

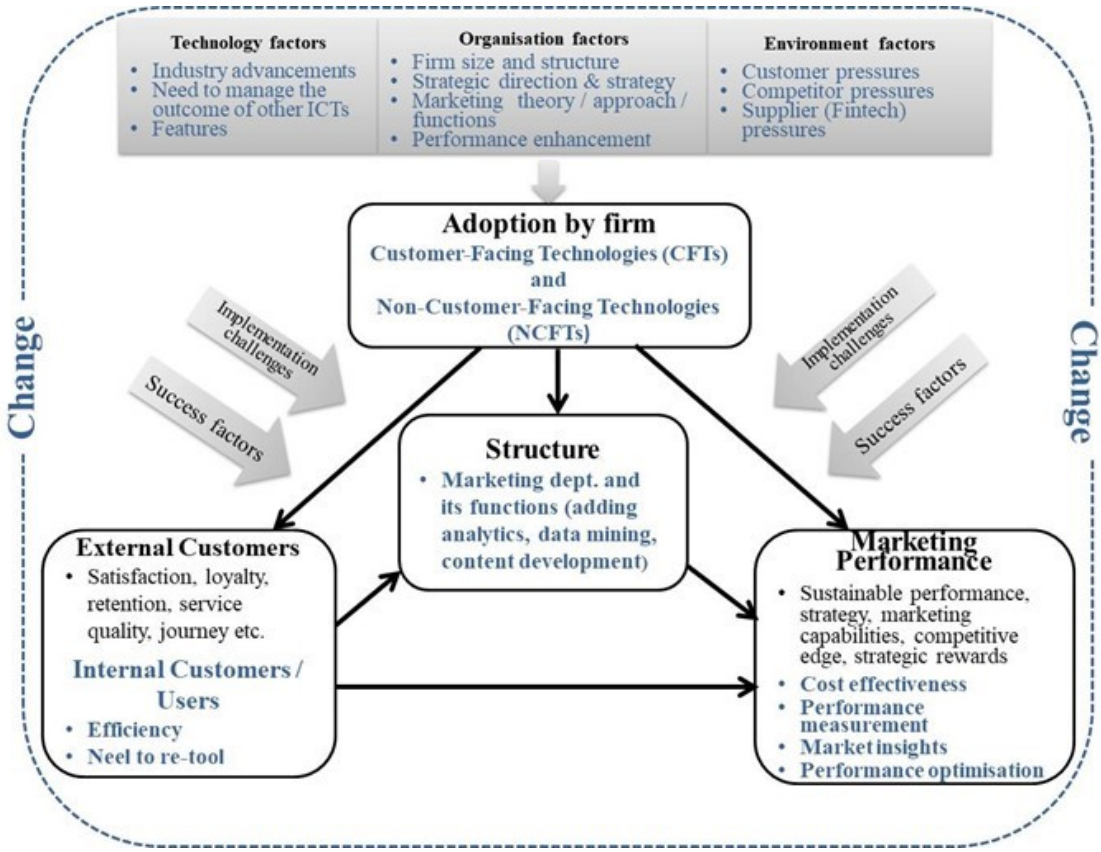
5.13 Revised conceptual framework

In light of the foregoing discourse, the conceptual framework presented in chapter two (Figure 2.3) has been re-visited and updated to reflect major findings emerging from this research (Figure 5.1). In essence, the original framework featured firm adoption as the major theme, illustrating its determinants, as well as its impacts on the customer, structure and marketing performance. In the revised framework the technological, organisational and environmental determinants underscored in the literature have been amplified to illustrate those factors which came to the fore in the findings. Accordingly, industry advancements, the need to manage the outcomes of other ICTs, and technology features comprised the technological factors. Organisational factors spanned firm size and structure, strategic direction and strategy, marketing theory / approach / functions, in addition to performance enhancement. Environmental factors included customer, competitor and supplier pressures.

Based on the findings, another revision was made to the firm adoption box, wherein a distinction was made between two categories of technologies adopted by the firm, that is, customer-facing technologies (such as social media and e-BB) and non-customer-facing technologies (for example, CRM). This distinction had a cascading effect on the customer box because it was evident from the findings that each category of ICT impacted a different category of customer, that is, customer-facing technologies impacted the external customers, whereas non-customer-facing technologies had an effect upon internal customers, that is, employees.

The structure box was also updated to include the impact of ICT adoption on the marketing department resulting in new functions being added such as analytics, data mining, and content development. In the area of marketing performance, cost effectiveness, performance measurement, market insights and performance optimisation were the main dimensions highlighted in the research findings. The last point of differentiation from the original framework was the incorporation of the change theme depicted by the broken line bordering the framework.

Figure 5.1: Revised conceptual framework of major themes



5.14 Summary

The findings from the data analysis showed that the majority of marketing managers from the case banks were employing transactional and relational approaches in their marketing practice, as posited by the seminal research contribution of Coviello et al. (2002). Although a stronger inclination towards a relational approach was discerned, most managers still advocated the relevance of transactional marketing characterised by the marketing mix, as well as traditional media, especially within Island-Nation, and the wider Caribbean context. A combination of marketing approaches was therefore being used by all the banks in their efforts to service consumer, as well as business markets.

Against this marketing backdrop, the case organisations were leveraging a series of customer-facing and non-customer-facing ICTs across several marketing functions and activities. These included: banking product and service development; digital channels for advertising, promotions and marketing communications; as well as electronic and

mobile channels of distribution for product and service delivery. The list also encompassed technologies for harnessing customer data for market insights and customer relationship management; sales management; data analytics; market and internal research; in addition to internal marketing and collaboration. Apart from marketing-specific ICTs, the banks also deployed generic technologies (for example project management tools) to enhance overall efficiencies which were not only used by marketing, but throughout the organisation.

Adoption and usage of these technologies by the banks were mainly influenced by environmental (customers, competitors, industry pressures) organisational (size, structure, strategy, performance enhancement, risk management) and technological factors (features, industry advancements). It was noteworthy and seemingly novel that the outcomes of certain ICTs (social media) spurred further adoption of ICTs (monitoring and listening tools) for effective management of risk and reputation. These findings were aligned with extant literature on adoption drivers applicable to firms, and the models most commonly used to conduct research in this area, that is, the TOE, DOI and TAM. Further, the process and staged nature of adoption was highlighted, as well as the significance of post-adoption diffusion as advocated by Rogers (2003) in the DOI theory.

Adoption of ICTs also impacted upon the organisational structure, particularly the structure of the marketing function, in that human and other resources were either added in-house to enhance digital marketing, data analysis and analytic capabilities, and/or alternatively these services were outsourced. This finding added to the limited body of research examining the impact of technology adoption specifically on marketing structure, for example, Strebinger and Treiblmaier (2006). Barriers and challenges to adoption and usage were also investigated. These included customer data security and privacy concerns, legal restrictions and the issue of a lack of understanding by decision-makers.

Regarding the performance theme, the measurement capability enabled by digital technologies was underscored by the marketing managers. Enthusiasm was expressed for the new data-driven approach in marketing and its potential to elevate the status of the discipline which has been a subject of question by some academics and professionals. Further, the cost effectiveness of digital, especially digital marketing, was

emphasised by managers. Additionally, the issue of ICT post-implementation performance optimisation was gleaned from the data analysis as an area warranting specific focus in order to enhance marketing performance. Limited scholarly work was noted in this area. Major barriers and challenges to performance optimisation in the case banks were also examined. These comprised technical problems, pressure on backend operations, reducing marketers' adoption rate, the complexity of digital technologies, and the need for marketers to re-tool themselves.

Apart from themes relative to adoption and performance, change was an emergent theme in the study data which also appeared to be latent in the literature. Therefore, an indirect, contextual relationship was perceived between change and the other variables of adoption, performance and customer-centric factors. A revised conceptual framework was provided at the end of the chapter to take account of the findings presented in the study.

Chapter 6: Conclusion and recommendations

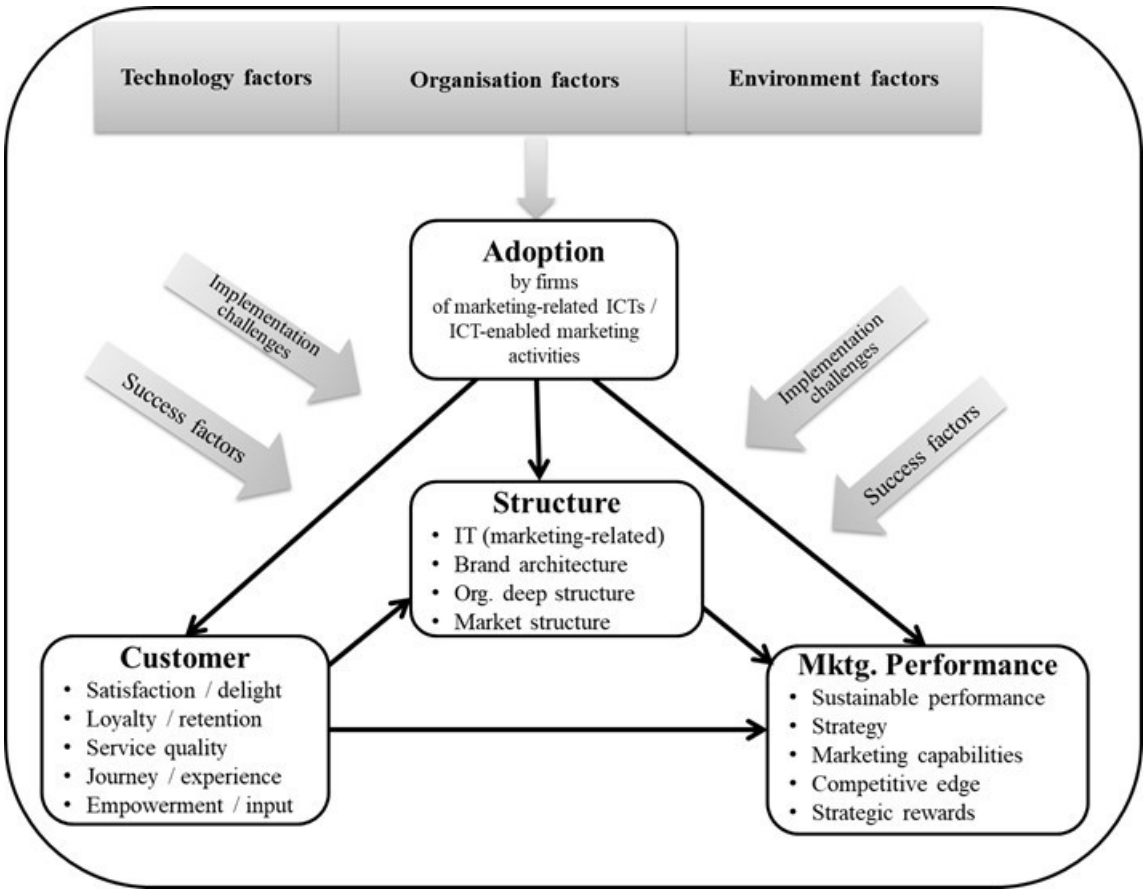
This chapter is a culmination of the thesis addressing the objectives of the study, as well as the research contribution to knowledge and practice, based on the findings and extant literature. The research aim and objectives are therefore revisited to facilitate the development of conclusions drawn from the research. Recommendations for practice, study limitations and areas for future research, as well as a statement on the author's intent for how the study should be used, are also addressed in this chapter.

6.1 Achievement of research aim and objectives

This study aimed to examine the scope and effectiveness of ICT deployment within marketing practice in Island-Nation's commercial banks, its impact on performance, and issues arising. It is considered that this aim was achieved through the attainment of the four stated objectives which are herein reviewed and the major findings highlighted.

Objective one sought to critically examine major themes in the literature addressing the incorporation of ICTs into the marketing field. This exercise was conducted in Chapter two in the literature review, resulting in the development of a conceptual framework depicting the relationship between the main themes: adoption, customer-centric focus, performance, and also, structure (Figure 6.1).

Figure 6.1: Conceptual framework of major themes



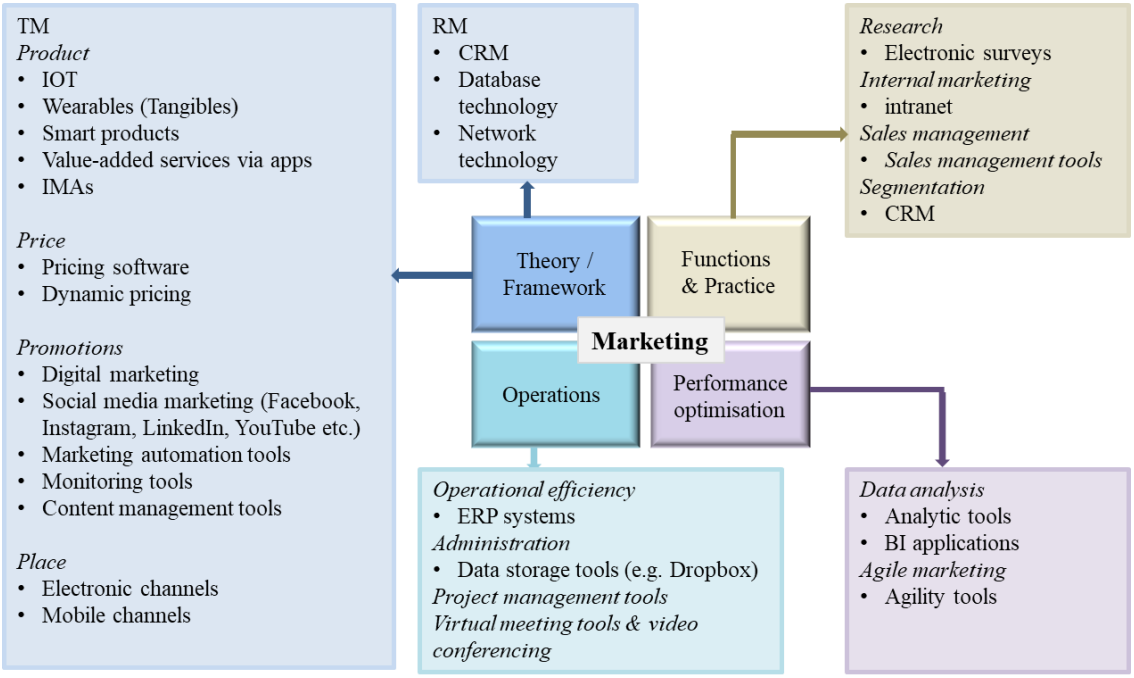
Objective two centred on identifying the forms of ICT utilised by marketers in commercial banks to carry out their functions, the extent of usage, and underlying reasons, as well as the perceived effectiveness. In Chapter four the findings demonstrated a comprehensive array of customer-facing and non-customer-facing ICT tools and media adopted across all the case banks, noting a high degree of homogeneity. They spanned those being used in the marketing mix: product (banking products and services); place (e-business, e-banking and mobile banking channels of delivery); and promotions (digital marketing). There was no evidence of technology being used for the pricing function either in the literature or the data. Additionally, ICT tools were being used for analytics, data mining, content management, and agile marketing. Another set of technologies was being leveraged for project management, administration, and collaboration, thereby supporting internal marketing efficiencies, productivity, and data analysis.

Regarding the level of importance placed on the various ICTs / ICT platforms, marketing managers across all the banks prioritised digital marketing and those used in banking products and services, especially e-banking, mobile banking, internet banking and credit cards. Most of the participants rated the ICTs deployed within marketing at their organisation as being effective. The examination of underlying factors influencing technology adoption and usage revealed that the main contributors influencing the adoption and usage of ICTs by the case banks stemmed from environmental, organisational and technological factors - all consistent with the TOE framework. Environmental factors comprised customer, competitor, supplier, and industry pressures. Organisational factors included firm size, structure, strategic direction and strategy, in addition to the desire for performance enhancement, and risk management. Further, a relationship between marketing theory / approach / functions and adoption was also observed. Hence, this recap has illustrated that the second objective was attained.

Objective three focused on determining challenges encountered by marketers in their efforts to adopt and optimise use of ICTs for enhanced marketing performance. This objective was addressed in Chapters four and five. The study delineated between challenges inhibiting adoption and those impacting performance optimisation. Security and privacy of customer data presented a major challenge to adoption, as well as a lack of understanding and difficulties to obtain budgets. Regarding performance optimisation, several detractors were identified. They included: technical issues and costs; adequate backend support; reducing the adoption rate; the complexities of digital marketing; keeping customers engaged; managing a fragmented budget; and the need for marketers to re-tool.

Objective four was to create a framework for incorporating ICT into marketing, designed to guide marketers in carrying out their functions. This framework is presented in Figure 6.2. It encapsulates four areas essential to marketing, namely: marketing theory / frameworks / approaches; marketing functions and practice; marketing operations; and performance optimisation. These are presented as a comprehensive springboard from which marketers could develop strategy and a checklist to ensure maximisation of the use of ICTs for enhanced performance. Neither the list of technologies nor the marketing functions are exhaustive since these may vary depending upon the organisation, the industry, and marketers' perspectives, among other factors.

Figure 6.2: Framework for leveraging ICTs in marketing



6.2 Contribution to knowledge

This research has made several contributions to academic knowledge. First, it has demonstrated the use of marketing approaches / theory to undertake research around ICT adoption and use in marketing. Scant studies have done so. The majority have drawn upon technology adoption theories. Further, this research has leveraged both traditional and relationship marketing approaches, confirming extant research purporting that they are not mutually exclusive in practice (Coviello et al., 2002).

Second, studies asserted that firm structure was a determinant of ICT adoption (for example Levenburg et al., 2005). This relationship was also evident in the current study. However, the reverse situation was also shown whereby ICT adoption impacted upon organisational structure, particularly within the marketing function. In several instances the case banks either added human and other resources to establish or enhance the areas of data analytics, data mining, or digital marketing capabilities, including content development, in-house, and/or outsource these functions. Conversely, in one organisation there was a reduction in marketing staff due to efficiencies harnessed from the introduction of technologies. Also, the need to pay attention to supporting backend and fulfillment resources for e-BB services was also emphasised. These examples

confirmed that ICT adoption had an impact upon marketing structure and by extension, the organisational structure. Scant studies have scrutinised the impact of ICT adoption on marketing structure (for example Strebinger & Treiblmaier, 2006), and to the best of the author's knowledge none has focused on ICT adoption impact on structure, in relation to marketing functions. Therefore, the results of the current study provide further insights into this area both from a theoretical and a practical standpoint, highlighting functional areas being added to marketing because of ICT adoption.

Third, the adoption process was captured by Rogers' (2003) DOI theory, wherein diffusion of ICT to the user was incorporated within the concept of implementation. It was gleaned from the findings that user diffusion of non-customer-facing technologies was an issue hindering marketing performance in at least one case bank. Not many academic works addressed the diffusion theme within the context of the firm, and of those which did, none focused on technology diffusion within the marketing function. Since the literature signaled marketers' uptake of ICTs as an issue (Brady et al., 2008), insights into factors affecting technology diffusion within the context of the marketing function was an area necessitating further academic attention. Based on the data, and drawing on some of the concepts from existing models such as the DOI and TAM, the current study posited that user adoption by marketers was affected by the individual's perception of the following technology characteristics: relative advantage, perceived usefulness, complexity, ease of use, perceived value, as well as time and effort required to use the technology. This study has therefore asserted the applicability of the DOI theory within the specific context of the marketing unit – an area not previously examined in scholarly investigations. Notwithstanding, this assertion requires further research for validation.

Fourth, while more focus was placed on the influence of size and structure on firm adoption, a scant number of studies examined the effect of strategic direction and strategy on ICT adoption. Those which did zeroed into a specific ICT for example e-commerce or social media. The linkage between strategy and ICT adoption was therefore an area meriting greater knowledge generation. The study findings demonstrated the significant role played by strategic direction and strategy across four of the case banks in their decision to adopt ICTs, particularly e-BB and digital marketing technologies including social media. In all instances, the organisation's overarching strategy was linked to a vison statement hinged upon either innovation,

modern or superior products, new technologies, or a digital pillar, all centered on customers. Thus, leveraging technologies was a core and consistent element of the banks' strategy. This finding was possibly due to the competitive nature of the banking industry and its inherent usage of technologies especially in the evolution of products and services. Hence, this study confirmed that strategic direction / strategy was an important determinant of ICT adoption, and moreover, that the nature of the industry and its intrinsic use of technology may also have had an influence on ICT adoption. These findings therefore added to the limited body of existing knowledge on strategic direction and strategy, as a determinant of ICT adoption.

Fifth, this research has posited that ICT performance optimisation and leveraging ICTs for performance optimisation warrant specific attention by marketers, as opposed to the performance component some researchers perceive as encompassed within implementation (Ismail et al., 2013). Other researchers have alluded to the importance of a similar heightened performance dimension by focusing on concepts such as performance maximisation (Audzeyeva & Hudson, 2016). Separate focus on performance optimisation ensures focus on the end game to avoid marketers' potential distraction by adoption and usage hurdles, and keep them focused on the reason for adopting ICTs in the first place.

6.2.1 Barriers and challenges to adoption and performance optimisation

The sixth contribution to knowledge entailed adding to the body of knowledge on barriers and challenges to technology adoption and performance optimisation. Many academic researchers identified barriers and challenges to technology adoption and usage by firms (for example Chitura et al., 2008; Ramsey et al., 2003; Thulani et al., 2010). However, few zeroed into challenges faced by marketers. One of these was the need to convince executives about using social media, an issue touched upon in other academic research (see Icha & Edwin, 2016). This lack of understanding translated into difficulties for marketers to obtain budgets for social media advertising, which in turn impacted upon the extent of the firm's usage of these ICTs. It was inferred from the data that this lack of understanding could be rooted in decision-makers' age, lack of personal usage of new media, as well as a foundation in traditional marketing and traditional media. Lack of understanding as a barrier to adoption has not received much academic focus.

This study also distinguished barriers and challenges to the performance optimisation of the ICTs adopted by the case banks. In several instances marketers raised technical issues stemming from the need to upgrade, fully integrate and phase in technologies (CRM and database) which were impacting upon their ability to obtain the type of information required in a ready-to-use format. It was noteworthy that these technologies did not fall under the purview of marketing but were handled by another unit such as the IT or ICT department. The inference was made that central to this problem were the issues of high cost of technological upgrades, the relatively smaller scale of operations of the locally-owned banks in comparison to their North American-owned counterparts, and also the impact of the digital divide which highlighted the disparity between developed and developing countries in accessing ICTs.

Also, as the banks strived to encourage greater customer adoption and usage of electronic and mobile banking channels, another challenge facing marketing was the need to have adequate resources in backend operations to enable faster, 24/7 processing and fulfillment of customers' transactions, in accordance with the expectations of online platforms. Once again, cost implications arose with the prospect of increasing backend resources. Apart from factors stemming from costs, it was perceived that another issue impacting upon performance optimisation was the individual adoption rate, especially of non-customer-facing ICTs. Slow individual adoption rates adversely affected diffusion of the technologies across the marketing department and therefore inhibited performance optimisation.

Managing the complexity of digital media presented another challenge to marketers. It was apparent from the findings that digital marketing was akin to a double-edged sword. On the one hand, it was versatile, cost effective, responsive, and enabled tracking and measurement of performance. However, on the other side, due to web 2.0's feature of two-way communication, it also required constant monitoring, managing, and content generation to keep users engaged, given the fickleness of social media. Additionally, while marketers may have mastered traditional media advertising over decades of use, they were still facing a learning curve with respect to acing the requirements for effective advertising on newer digital channels. Moreover, though the wider selection of media channels afforded marketers greater flexibility in configuring their media mix, it also required greater focus on integration of marketing communications and greater skill in selecting the optimal media mix for marketing campaigns and initiatives.

Apart from technology making it more complicated to handle marketing communication, the adoption of ICTs has also expanded the scope of marketing practice through the introduction of additional functions/activities such as analytics, data mining and content development. Altogether, this situation translated into a greater workload for marketing which, without supplemental resources in the form of in-house or out-sourced services, could have an adverse impact on marketers' performance, as well as their personal well-being. This issue also has implications for practice.

Thus far, to the best of the author's knowledge, scholarly work has not examined barriers and challenges faced by marketers in their individual attempts of adoption, usage and exploitation of ICTs made available by the firm to enhance performance. This research study has also made a contribution towards bridging that knowledge gap.

6.2.2 Change

Change was an emergent theme in the study data. It was raised by participants from four of the banks with reference to transformation of the marketing discipline; changing consumer consumption of media; the pace of change; and the need for change management. This theme also appeared to be latent in extant literature in seminal works such as Rogers (2003) DOI theory, and other academic pieces (for example Audzeyeva & Hudson, 2016; Louise, 2018; Mohamed & Mourad, 2014). It may also have been implicit in other scholarly works since ICT development and introduction has been unfolding at such a fast pace. Considering these findings, it was concluded that change is a relevant consideration in the context of ICT adoption and usage in marketing. It is ever present in the environmental context within which adoption, customer-centric factors and performance occur. Acknowledging that the core themes inter-relate within a state of flux rather than being static has implications for the success of measures taken in these areas. Such measures should incorporate constant environmental monitoring, learning, flexibility, and adaptability to treat with the effects of change. This contribution therefore also has implications for practice.

6.3 Contribution to practice

This research has illustrated the myriad ways in which the adoption and use of ICTs has infiltrated the marketing discipline and its functions. To the best of the author's

knowledge this is the first study of its kind to attempt to capture this scope of ICTs. Other studies have mainly focused on e-BB or digital marketing, that is, a single or a group of related ICTs like social media and websites. While these research pieces are of unquestionable value, the findings showed that the use of technology in marketing practice did not occur in isolation, therefore, adopting a singular approach would not capture the reality of contemporary practice for most marketing managers. As demonstrated in this study, marketers were exposed to a series of ICTs in their daily practice. Outlining of the ICT selection used by commercial banks, a leading sector in ICT adoption, provides valuable information not only to marketers in banking, but also to those from comparative sectors. It is noteworthy that the findings were not exhaustive, in that the ICTs highlighted were specific to commercial banks within the context of Island-Nation, and limited to technologies existing at the time of the study.

Another contribution to practice was highlighting the need for marketers to re-tool. This assertion was made by other researchers (Brady et al., 2008). While participants' prowess in advertising through digital media channels grew due to exposure to various training courses, there was still a learning curve to master in this area. Further, as this study demonstrated, advertising and promotions was not the only area where ICTs have penetrated, yet it was the major area in which most marketers had undergone some form of training. It was gleaned from the data that there was a need for marketers' skills to be enhanced in the area of data analysis, as well as in the use and application of non-customer-facing technologies designed to help them gather market insights and improve their output and overall performance. Additionally, the need for collaboration and team skills were also brought to the fore.

This research has also served to counter assertions in academic and professional discourse that the marketing discipline has been losing its status in the boardroom (Constantinides, 2008). One of the impacts of ICT adoption was the measurement, tracking and report features of digital marketing technologies which were touted by the managers across all case banks. These features enabled marketers to measure the effectiveness of initiatives and campaigns -a somewhat elusive feat with traditional media. The measurement capability enabled better performance evaluation leading in turn to further performance improvement in terms of number of leads, customer responsiveness, in addition to the ability to track and follow up on customers in the sales process. Therefore, the adoption and usage of digital marketing tools had a

positive impact on marketing performance in the case banks, redounding to elevating the status of the marketing profession since marketing's real contribution to the business could now be measured, and market response could now to gauged in a more cost effective and expedient way.

6.4 Recommendations

Considering the foregoing, a number of recommendations are proposed to assist with the adoption and usage of ICTs in marketing practice. First, it is suggested to expose executives, board members and decision-makers within firms to training on the many ways in which ICTs are impacting upon marketing, the need for performance optimisation using ICTs, and the value, cost and requirements for successful initiatives and campaigns on digital media platforms. Such exposure should address the lack of understanding issue which arose in the data.

Second, drawing upon Rogers (2003), it is proposed that a change agent / ICT champion be assigned to help individual marketing managers in their quest to transition to using software made available by the companies to enhance their performance. This individual(s) should be both technically sound and have an appreciation for what marketing involves. Further, managers should be trained on the key software, how they interact, how to obtain the most from them, and how the software could enhance their performance, thereby making their jobs easier. Video tutorials could also be drawn on for this purpose. Since this type of training may be intense and time-consuming, technical retreats (virtual or non-virtual) should be considered to maximise participant focus and learning. A focus on promoting hands-on usage of the various software tools should be integral to training efforts, including data analysis, report generation and all the other practical output managers need to function effectively. These training options, technical support and hands-on usage should assist with reducing the individual adoption rate.

Third, the need to improve the collaboration skills between marketing, IT, operations was also apparent. Such cooperation could be fostered through training, leadership and the establishment of a collaborative team comprising representatives of these departments, focused on the common goal of enhanced performance. Fourth, in recognition of the context of change, emphasis should be placed on vigilant monitoring

of environmental, organisational and technological factors for pro-active, informed organisational decision-making with regards to ICT usage in marketing. Additionally, development of a culture of consistent learning and leveraging e-learning, should assist with making the marketing departments and their organisations more resilient to change and its effects. Further, in managing ICT deployment for enhanced marketing performance, a level of flexibility should be incorporated into the approach taken, for example, structural changes.

6.5 Study limitations and areas for future research

This research was qualitative in nature. Qualitative research has been criticised on the grounds of being value-laden, unreproducible, unverifiable, and subscribing to multiple realities (Bergman, 2008). While these limitations are acknowledged by the author, several methodological measures detailed in Chapter three were taken to mitigate these effects. Firstly, a foundation in critical realism upheld a single rather than multiple realities. Secondly, the incorporation of a qualitative survey into multi-methods generated objective, empirical data, which were analysed using descriptive statistical measures common in quantitative research. Moreover, dual methods enabled triangulation for enhanced robustness. Thirdly, efforts were made by the researcher to adopt an unbiased stance throughout the data collection process. Fourthly, the steps taken in the analysis of the interview data were clearly outlined for transparency and to enable replication of the study.

Another limitation of qualitative research is the use of small sample sizes which preclude generalisability of the findings (Bergman, 2008). This drawback also pertains to this study however it was minimised by the participation of six of the eight commercial banks in the country including all four which dominate the banking landscape. Notwithstanding, the rich data generated using these methods could be transferable to similar contexts. Additionally, the diverse backgrounds of the purposive sample of participants compensated to a certain extent for the small sample size (Saunders et al., 2009).

This research was undertaken within the context of the commercial banks of Island-Nation. Its findings therefore cannot be generalised beyond this scope, but may be transferred to similar contexts of small, developing countries. Conducting this type of

research in larger, first world countries may more than likely yield differing results, especially considering the digital divide. Hence, focusing on larger, first-world nations is an area which should be investigated in future research. Additionally, some variation is expected with the range of ICTs being used by commercial banks as compared to other sectors, for example FMCG and other consumer goods. Similarly, variations may occur with SMEs, given their noted resource constraints. Therefore, by examining ICT use in marketing within these other contexts further research would enhance knowledge which would redound to the benefit of marketing in both theory and practice. Lastly, future research should also be conducted on the issue of change within the ambit of ICT deployment in the marketing field.

6.6 Author's intent for study use

It is my intent that this research be used by organisations to aid their efforts at ICT deployment within the marketing functions, ultimately leading to enhanced performance and performance optimisation. Frameworks provided herein are tools designed to be used by both academics and practitioners for the continuous improvement and knowledge building in the field of marketing. It should be noted that the findings contained within this research are not exhaustive and should be continually reviewed given continuous and rapid technology advancements.

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Appendix 1

Questionnaire

Use of ICTs in marketing

Informed Consent Form

Edinburgh Napier University requires that all persons participating in research studies give their written consent to do so. Please read the following and if acceptable, indicate your agreement to participate at the end.

Who am I? My name is Tracey Savary and I am a researcher pursuing a Doctorate of Business Administration (DBA) with the Edinburgh Napier University (ENU), Scotland.

Purpose of the research: To investigate the impact of information and communications technology (ICT) on marketing.

Use of ICTs in marketing

Informed Consent Form (cont'd)

Sponsor of the study: This research is being undertaken for purely academic reasons, for furtherance of knowledge in the field of study and for the purpose of obtaining a DBA certification. It is not funded by any public or private entity.

Why is the research important? The findings will be used to assist marketers in leveraging ICTs for improved business performance.

Research methods: The study will be undertaken in two parts: first a questionnaire and at a later date, an interview.

Use of ICTs in marketing

Informed Consent Form (cont'd)

Anonymity and confidentiality: All responses obtained will be kept anonymous and confidential. Participants will not be identified in any report produced by the researcher. Data will be stored on an encrypted removable drive or password protected computer.

Duration of survey and interview: The survey takes about 10 to 15 minutes to complete; the interview about 45 minutes to an hour.

Use of ICTs in marketing

Informed Consent Form (cont'd)

Survey return: The completed questionnaire can be done online, emailed or physically collected.

Time frame for return: Participants are asked to complete the questionnaire within 14 days of receipt.

Ethics: The research process is governed by stringent ethical consideration in accordance with ENU's regulations and guidelines.

Is it possible to withdraw from participating: Participation in the study is completely voluntary and can be withdrawn at any time.

Is it possible to ask questions about the study?: Yes. Feel free to contact the researcher at tracey.savary@napier.ac.uk.

Use of ICTs in marketing

Participant's indication of consent

Having read the preceding information on the study, if acceptable to you, please indicate your agreement to participate in the questionnaire and interview.

1. **Do you agree to participate in the questionnaire and interview related to the study on the use of ICTs in marketing?**

   ☐ I agree

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Use of ICTs in marketing

Section A: Scope of the marketing approaches

2. **Which of the following describe(s) your organisation's approach to managing its marketing function? Select ALL options applicable.**

- [ ] This organisation uses elements of the marketing mix (product, price, place, promotions) as the basis for attracting and satisfying potential customers.
- [ ] This organisation's advertising & promotions efforts target a mass market to generate sales volumes.
- [ ] This organisation uses database technology in order to gather information about individual customers.
- [ ] Using information gathered from database technology, this organisation sends personalised communications to individual customers.
- [ ] This organisation uses database technology to conduct market analyses and gain market insights.
- [ ] This organisation uses information gathered from database technology to inform marketing strategy such as segmentation, new product development etc.
- [ ] This organisation's marketing efforts are focused on building long-term, profitable relationships with individual customers.
- [ ] This organisation uses the internet and other interactive technologies to create and mediate dialogue with customers.
- [ ] This company commits resources to obtaining customers across our organisation and among a network of businesses.
- [ ] This organisation focuses on the elements of people (employees, customers), physical evidence (facility, uniforms, equipment) and processes, as fundamental to its marketing strategy.

3. **Many organisations engage in the consumer market, as well as the business to business (B2B) market. Which of the following statements best represents your organisation's positioning between these two?**

- [ ] My organisation's business is solely focused on the consumer market.
- [ ] My organisation's business is solely focused on the B2B market.
- [ ] My organisation's business is equally focused on the consumer and B2B markets.
- [ ] My organisation's business is more heavily skewed towards the consumer market.
- [ ] My organisation's business is more heavily skewed towards the B2B market.

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Use of ICTs in marketing

Section B: Use of information and communications technology (ICT)

A listing of ICTs used in marketing is provided in questions 4 to 12, grouped into categories. Please check the relevant option to indicate the importance of each ICT to your organisation's marketing strategy/efforts.

4. Please rate the importance of each ICT below to your organisation's marketing strategy/efforts, on a scale of 1 to 5.

	Advertising and promotions					
	Not at all important		Neutral		Very important	
	1	2	3	4	5	Not applicable / Don't know
Website (informational only)	○	○	○	○	○	○
Facebook	○	○	○	○	○	○
Twitter	○	○	○	○	○	○
Instagram	○	○	○	○	○	○
Email	○	○	○	○	○	○
SMS (text messaging)	○	○	○	○	○	○
Banner advertising	○	○	○	○	○	○
Direct mail	○	○	○	○	○	○
Infomercials	○	○	○	○	○	○
Blogs	○	○	○	○	○	○
You tube	○	○	○	○	○	○
Contact centres	○	○	○	○	○	○
Digital marketing	○	○	○	○	○	○
Electronic kiosks	○	○	○	○	○	○

	Advertising and promotions					
	Not at all important		Neutral		Very important	
	1	2	3	4	5	Not applicable / Don't know
Search engines	○	○	○	○	○	○
Google analytics	○	○	○	○	○	○
Newspaper	○	○	○	○	○	○
Television	○	○	○	○	○	○
Cable television	○	○	○	○	○	○
Radio	○	○	○	○	○	○

5. Please rate the importance of each ICT below to your organisation's marketing strategy/efforts, on a scale of 1 to 5.

	Banking products and services					
	Not at all important		Neutral		Very important	
	1	2	3	4	5	Not applicable / Don't know
SMS banking	○	○	○	○	○	○
Mobile (m-banking)	○	○	○	○	○	○
E-banking	○	○	○	○	○	○
Personal computer banking	○	○	○	○	○	○
Internet banking	○	○	○	○	○	○
Automated Teller Machines (ATMs)	○	○	○	○	○	○
Telephone banking	○	○	○	○	○	○
Credit card	○	○	○	○	○	○
Electronic cheque clearing systems	○	○	○	○	○	○

6. Please rate the importance of each ICT below to your organisation's marketing strategy/efforts, on a scale of 1 to 5.

	Relationship management					
	Not at all important		Neutral		Very important	
	1	2	3	4	5	Not applicable / Don't know
Customer relationship management (CRM)	○	○	○	○	○	○
CRM 2.0	○	○	○	○	○	○

7. Please rate the importance of this ICT below to your organisation's marketing strategy/efforts, on a scale of 1 to 5.

	Market research					
	Not at all important		Neutral		Very important	
	1	2	3	4	5	Not applicable / Don't know
Electronic surveys	○	○	○	○	○	○

8. Please rate the importance of this ICT below to your organisation's marketing strategy/efforts, on a scale of 1 to 5.

	Sales, customer service and business partner contact					
	Not at all important		Neutral		Very important	
	1	2	3	4	5	Not applicable / Don't know
E-business / E-commerce website	○	○	○	○	○	○

9. Please rate the importance of this ICT below to your organisation's marketing strategy/efforts, on a scale of 1 to 5.

	New product development					
	Not at all important		Neutral		Very important	
	1	2	3	4	5	Not applicable / Don't know
Innovation management applications	○	○	○	○	○	○

10. Please rate the importance of each ICT below to your organisation's marketing strategy/efforts, on a scale of 1 to 5.

	Integrated efficient operations					
	Not at all important		Neutral		Very important	
	1	2	3	4	5	Not applicable / Don't know
Enterprise resource planning (ERP)						

	Integrated efficient operations					
	Not at all important		Neutral		Very important	
	1	2	3	4	5	Not applicable / Don't know
system	○	○	○	○	○	○
Internet of Things (IoT)	○	○	○	○	○	○

11. Please rate the importance of each ICT below to your organisation's marketing strategy/efforts, on a scale of 1 to 5.

	Internal marketing					
	Not at all important		Neutral		Very important	
	1	2	3	4	5	Not applicable
Intranet	○	○	○	○	○	○
Video-conferencing	○	○	○	○	○	○

12. Please rate the importance of each ICT below to your organisation's marketing strategy/efforts, on a scale of 1 to 5.

	Mobile platforms					
	Not at all important		Neutral		Very important	
	1	2	3	4	5	Not applicable / Don't know
WhatsApp	○	○	○	○	○	○
Organisational App	○	○	○	○	○	○

13. **Apart from the range of ICTs listed in this section, are there any other major ICT(s) being used in the marketing efforts / strategy of your organisation? Please indicate.**

14. **Of the range of ICTs listed in questions 4 to 13, please identify which ones are of strategic importance to your organisation.**

15. **Why are areas identified in question 13 of strategic importance to your organisation?**

16. In your organisation, which department (s) is/are responsible for incorporating ICTs into marketing?

☐ Marketing ☐ Communications ☐ Information technology (IT) ☐ CEO's office ☐ Other

Other comments?

0 / 2000

17. Please rate the overall effectiveness of the ICTs used in undertaking your marketing efforts.

18. Any additional comments related to questions in this survey.

19. **Please state your name. (Optional)**

20. **Gender**

☐ Female ☐ Male

21. **Position in organisation**

22. **Number of years in a marketing position**

23. **Age group**

☐ 18-24 years ☐ 25-34 years ☐ 35-44 years ☐ 45-54 years ☐ 55-64 years ☐ 65 and over

24. Marketing education / training / courses and the year completed.

Appendix 1a

Questionnaire – Linkage to theory / literature

1) This question was related to informed consent.

Section A: Scope of the marketing approaches

2) Which of the following describe(s) your organisation's approach to managing its marketing function? (Tick ✓ ALL options applicable).

Approach	Theory	Theory source from the literature
a) This organisation uses elements of the marketing mix (product, price, place, promotions) as the basis for attracting and satisfying potential customers.	Traditional / transactional marketing	(Brodie et al., 2008, p. 85; Coviello et al., 2002, p. 34)
b) This organisation's advertising & promotions efforts target a mass market to generate sales volumes.	Traditional / transactional marketing	(Brodie et al., 2008, p. 85)
c) This organisation uses database technology in order to gather information about individual customers.	Database marketing	(Brodie et al., 2008; Ekman, Erixon & Thilenius, 2015)
d) Using information gathered from database technology, this organisation sends personalised communications to individual customers.	Database marketing	(Wehmeyer, 2005)
e) This organisation uses database technology to conduct market analyses and gain market insights.	Database marketing	(Ekman et al., 2015)
f) This organisation uses information gathered from database technology to inform marketing strategy such as segmentation, new product development etc.	Database marketing	(Ekman et al., 2015; Wehmeyer, 2005)
g) This bank's marketing efforts are focused on building long-term, profitable relationships with individual customers.	Relationship marketing	(Grönroos, 1994; Maicas Lopez, Polo Redondo & Sese Olivan, 2006)

Approach	Theory	Theory source from the literature
h) This organisation uses the internet and other interactive technologies to create and mediate dialogue with customers.	E-marketing and Interaction marketing	(Coviello et al., 2001, p.26; Grönroos, 2004; Grönroos, 2011) Overlap was perceived between both concepts since interaction also encompasses interact-ivity with systems and technologies.
i) This bank commits resources to obtaining customers across our organisation and among a network of businesses.	Network marketing	(Ekman et al., 2015)
j) This organisation focuses on the elements of people (employees, customers), physical evidence (facility, uniforms, equipment) and processes, as fundamental to its marketing strategy	Services marketing	(Grönroos, 2006)

3) Many organisations engage in the consumer market as well as the business to business (B2B) market. Which of the following best represents your organisation's positioning between these two? My organisation's business is solely focused on the consumer market. My organisation's business is solely focused on the B2B market. My organisation's business is equally focused on the consumer and B2B markets. My organisation's business is more heavily skewed towards the B2B market. My organisation's business is more heavily skewed towards the B2B market.	Research has shown that the type of market served by a company has an influence upon the marketing approach (es) adopted. (for example, Coviello et al., 2002).

Section B: Use of information and communications technology (ICT)

4-12) A listing of ICTs used in marketing is provided below, grouped into (9) categories. *P*lease tick✓ the relevant box to indicate the *importance of each ICT to your organisation's marketing strategy/efforts on a Scale of 1 to 5,* where 5 = very important and 1 = not at all important. Tick 'NA' if the ICT option is not used in your organisation's marketing.

Listing of ICTs	Journal articles in which mentioned
Advertising / Promotions / Communications	
a. Website (informational only)	(Rowley, 2001; Shaltoni, 2017; Smutny, 2015; Wresch & Fraser, 2006)
b. Facebook	(Icha & Edwin, 2016; Mannan & Haleem, 2017; Scuotto, Del Giudice & Carayannis, 2017; Setiowati et al., 2015; Sharma & Baoku, 2013; Wieneke & Lehrer, 2016)
c. Twitter	(Icha & Edwin, 2016; Setiowati et al., 2015; Sharma & Baoku, 2013)
d. Instagram	(Icha & Edwin, 2016)
e. Email	(Barkai & Harison, 2011)
f. SMS (text messaging)	(Barkai & Harison, 2011; Singh, 2014; Valsecchi et al., 2007)
g. Banner advertising	(Gauzente, 2001; Louise, 2018)
h. Direct mail	Professional knowledge
i. Infomercials	Professional knowledge
j. Blogs	(Icha & Edwin, 2016; Scuotto et al., 2017; Smutny, 2015)
k. You tube	(Icha & Edwin, 2016; Scuotto et al., 2017)
l. Contact centres	(Henten, 2012)
m. Digital marketing	(Adnan et al., 2018; Gutierrez-Leefmans et al., 2016; Juho, 2013; Tfaily, 2018)
n. Electronic kiosks	Professional knowledge
o. Search engines	(Wresch & Fraser, 2006; Louise, 2018)

Listing of ICTs	Journal articles in which mentioned
p. Google analytics	(Juho, 2013)
q. Newspaper	(Flavián & Gurrea, 2009)
r. Television	(Arroyo-Cañada & Gil-Lafuente, 2016)
s. Cable television	Professional knowledge - Traditional media
t. Radio	Professional knowledge - Traditional media
Banking products and services	
a. SMS banking	(Al-Weshah, 2017)
b. Mobile (m-banking)	(Albashrawi & Motiwalla, 2017; Dzogbenuku, 2013; Rajarathinam & Mangalam, 2013; Singh, 2014; Sun et al., 2012; Valsecchi et al., 2007; Yu et al., 2015)
c. E-banking	(Machogu & Okiko; Narteh, 2012; Yu & Asgarkhani, 2015)
d. Personal computer banking	(Polasik & Wisniewski, 2009)
e. Internet banking	(George & Kumar, 2015; (Okeke, Ezeh & Ugochukwu, 2015; Thulani et al., 2009)
f. Automated Teller Machines	(George & Kumar, 2015; Okeke et al., 2015; Omar et al., 2011)
g. Telephone banking	Personal knowledge
h. Credit card	(Mangiaracina & Perego, 2009; Matthew et al., 2012)
i. Electronic cheque clearing systems	(Abor, 2004 as cited in Narteh, 2012 p. 3)
Relationship management	
a. Customer relationship management	(Kahreh et al., 2001; Wehmeyer, 2005)
b. CRM 2.0	(Stone, 2009)
Market research	
a. Electronic surveys	(Lockett & Blackman, 2004)

Listing of ICTs	Journal articles in which mentioned
Sales, customer service and business partner contact	
a. E-business/E-commerce website	(Bramall et al., 2004; Brand & Eelko 2008; Casaló et al., 2011; Mangiaracina et al., 2009)
New product development	
a. Innovation management applications	(Plewa et al., 2012)
Integrated efficient operations	
a. Enterprise resource planning (ERP)	(Ekman et al., 2015; Raisinghani et al., 2005)
b. Internet of Things (IoT)	(Middleton et al., 2014)
Internal marketing	
a. Intranet	(Raisinghani et al., 2005)
b. Video-conferencing	(Durmusoglu, 2009)
Mobile platforms	
a. WhatsApp	Professional knowledge
b. Organisational app	Professional knowledge

Question	Rationale and related literature
14) Of the items listed above, please identify which ones are of strategic importance to your organisation. 15) Why are areas identified in Q14 of strategic importance?	Marketers were criticised for over emphasis on "P" for promotions, or tactical marketing, as opposed to strategic marketing (Constantinides, 2008). However, the literature did not clarify what was considered strategic marketing, nor the ICTs used to enhance it. Hence, these questions sought to provide insights into this issue.

16) In your organisation, which department (s) is/are responsible for incorporating ICTs into marketing? Please tick. Marketing department ____ Communications department _____ IT department ____ CEO's office _____	The need for inter-department collaboration in order to facilitate the integration of ICTs into marketing was highlighted in the literature (Brady et al., 2008).
17) Please rate the overall effectiveness of the ICTs used in undertaking your marketing efforts. Tick accordingly. [5 - extremely effective]; [4 - very effective], [3 - somewhat effective], [2 - slightly effective], [1- not at all effective].	Related to objective two of the study.
18) Any additional comments related to questions in this survey.	Open ended question to capture items not included in the questionnaire.

Section C: Personal information

Questions	Theory source from the literature
19) Name: _____ 20) Gender: Female _____ Male _____ 21) Position in organisation: _____ 22) No. of years in a marketing position:__ 23) Age group: 18-24 years ____ 45-54 years _____ 25-34 years ____ 55-64 years _____ 35-44 years ____ 65 and over _____ 24) Marketing education / training / courses, if applicable:	Several studies demonstrated linkages between demographics and ICT adoption. (Cullen & Kabanda, 2018; Hamakhan, 2020; Low et al., 2020)

Appendix 2

Semi-structured Interview questions

Theme: Underlying reasons why certain ICTs are being used as opposed to others

1. Which ICT tools is your organisation using?
2. Why has your organisation opted to use these particular ICT tools?

Theme: Effectiveness of ICTs on marketing performance

3. How has the use of ICTs impacted upon your organisation's marketing performance?
4. What performance metrics do you use to support the assessment of the effectiveness of the various ICT tools?

Theme: Strategic value of ICTs in marketing

5. Strategic management involves long term planning to achieve growth and the competitive edge. How is the use of any ICT tools/media in marketing being leveraged by your organisation in a strategic way?

Theme: Marketing communications is one of the first areas impacted upon by ICTs and the broadening array of communications avenues has presented challenges.

6. How has your organisation responded to the wider variety of ICT tools/media now available for marketing communications?
7. How has this wider variety of ICT tools/media impacted upon your advertising/marketing communications budget?

Theme: Relative importance of traditional versus more recent ICT communications.

8. How do you weigh the effectiveness and importance of traditional marketing communications such as television, newspapers and radio, versus new media such as social media marketing, search engines etc. in your marketing efforts?

Theme: The importance of e-business / e-banking

9. Describe the current role e-business is playing in your organisation. What are your expectations of the future role of e-business in your organisation and why?

Theme: Noted reluctance by marketers to incorporate ICT into their practice

10. What concerns / difficulties / objections, if any, does your organisation have regarding the incorporation of ICTs into its marketing practice?
11. What concerns / difficulties / objections, if any, do you have regarding the incorporation of ICTs into your marketing practice?

12. Are there any comments that you would like to add?

Appendix 2a

Semi-structured Interview questions – Linkage to theory / literature

Theme and related questions	Theory / Supporting literature
Theme: Underlying reasons why certain ICTs are being used as opposed to others 1. Which ICT tools is your organisation using? 2. Why has your organisation opted to use these particular ICT tools?	A tenet of critical realism, the philosophy used in this study, is to seek the underlying reasons for a phenomenon (Bhaskar, 2008; Danermark et al., 2002). Hence, Q2 was aligned to the philosophical underpinning of the research. Q1 was a necessary precursor to Q2.
Theme: Effectiveness of ICTs on marketing performance 3. How has the use of ICTs impacted upon your organisation's marketing performance? 4. What performance metrics do you use to support the assessment of the effectiveness of the various ICT tools?	In the literature linkages were demonstrated linkages between performance and ICT adoption (for example Chaudhary et al., 2020; Rahman et al., 2020; Shahzad et al., 2020; Safari et al., 2016). Hence, this linkage was investigated in the study. Q4 sought to validate the response provided in Q3, as well as to gain further insights into measurement tools.
Theme: Strategic value of ICTs in marketing 5. Strategic management involves long term planning to achieve growth and the competitive edge. How is the use of any ICT tools/media in marketing being leveraged by your organisation in a strategic way?	The strategic use of ICTs in marketing was raised as an issue (Baker, 2013), however little clarification was provided in the literature. Q5 sought to contribute to addressing that gap.
Theme: Marketing communications is one of the first areas impacted upon by ICTs and the broadening array of communications avenues has presented challenges. 6. How has your organisation responded to the wider variety of ICT tools/media now available for marketing communications? 7. How has this wider variety of ICT tools/media impacted upon your advertising/marketing communications budget?	Q6 was exploratory in nature, aimed at gauging the banks' responses to the increasing range of ICTs available. Related to this, Q7 examined the impact of their response on the marketing expenditure, since marketing has been criticised as being a cost centre in organisations (Hinshaw, 2005).

Appendix 3

Informed consent form

Who am I? My name is Tracey Savary and I am a researcher pursuing a Doctorate of Business Administration (DBA) with the Edinburgh Napier University (ENU), Scotland.

Purpose of the research: I am investigating the impact of information and communications technology (ICT) on marketing.

Sponsor of the study: This research is being undertaken for purely academic reasons, for furtherance of knowledge in field of study and for the purpose of obtaining a DBA certification. It is not funded by any public or private entity.

Why is the research important? The findings will be used to assist marketers in leveraging ICTs for improved business performance.

Research methods: The study will be undertaken in two parts: first a questionnaire and at a later date, an interview.

Anonymity and confidentiality: All responses obtained will be kept anonymous and confidential. Participants will not be identified in any report produced by the researcher. Data will be stored on an encrypted removable drive or password protected computer.

Duration of survey and interview: The survey takes about 10 minutes to complete; the interview about 45 minutes to an hour.

Survey return: The completed questionnaire can be done online, emailed or physically collected.

Time frame for return: Participants are asked to complete the questionnaire within 14 days of receipt.

Ethics: The research process is governed by stringent ethical consideration in accordance with ENU's regulations and guidelines.

Is it possible to withdraw from participating: Participation in the study is completely voluntary and can be withdrawn at any time.

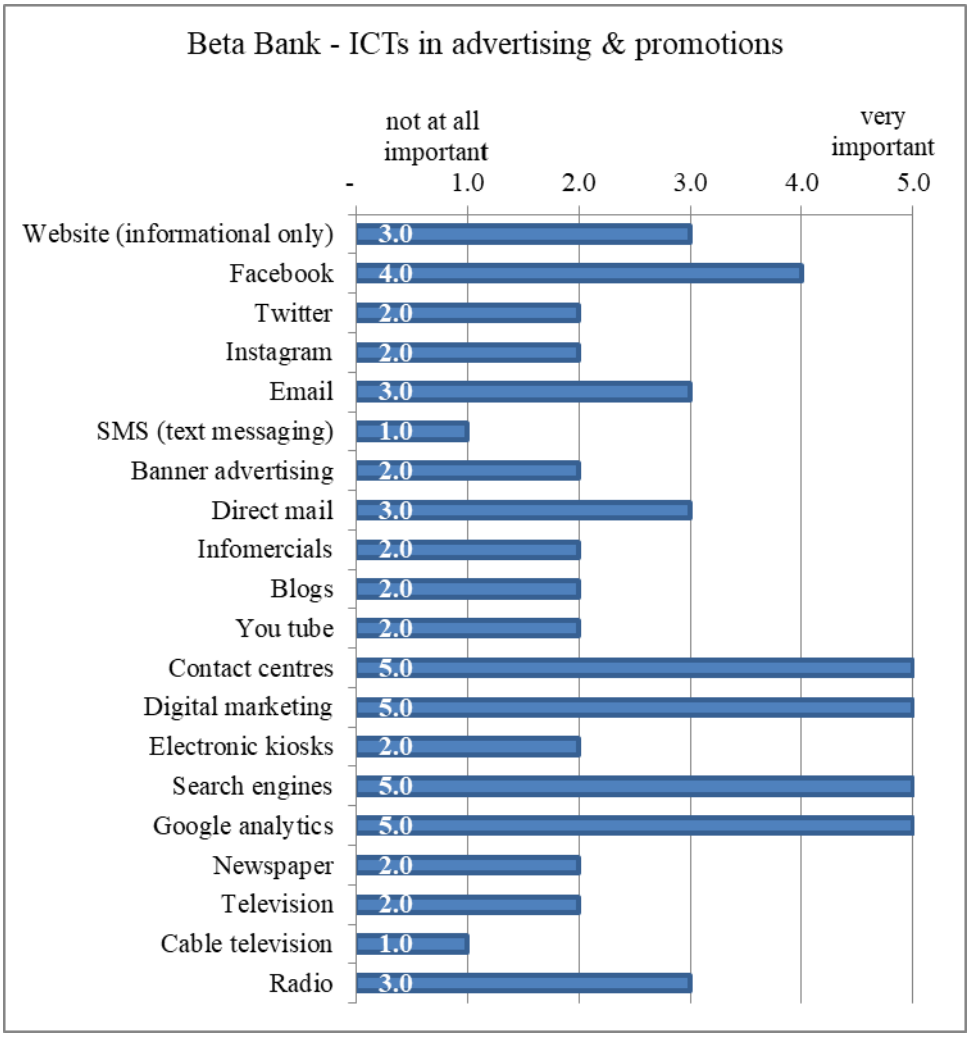
Is it possible to ask questions about the study? Yes. Feel free to contact the researcher at tracey.savary@napier.ac.uk.

Do you agree to participate in the study questionnaire and interview?

Yes ◯ No ◯

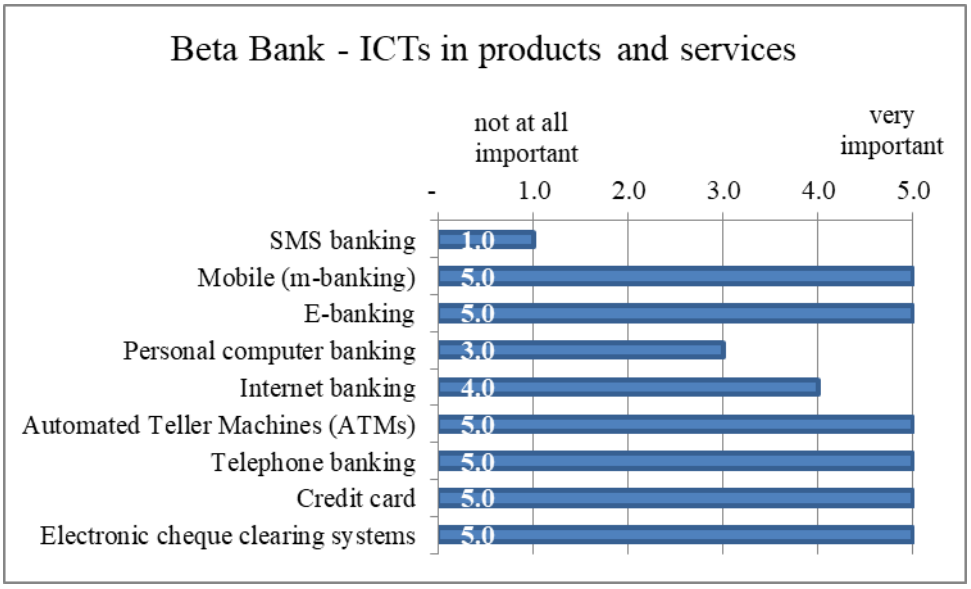
Appendix 4a

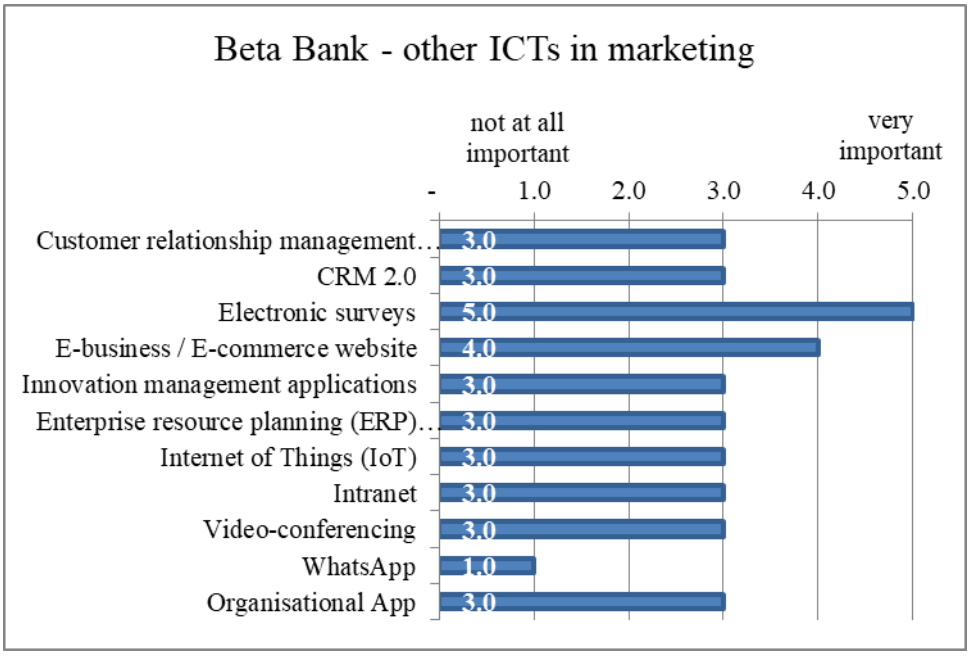
Beta Bank - ICTs in marketing



Appendix 4b

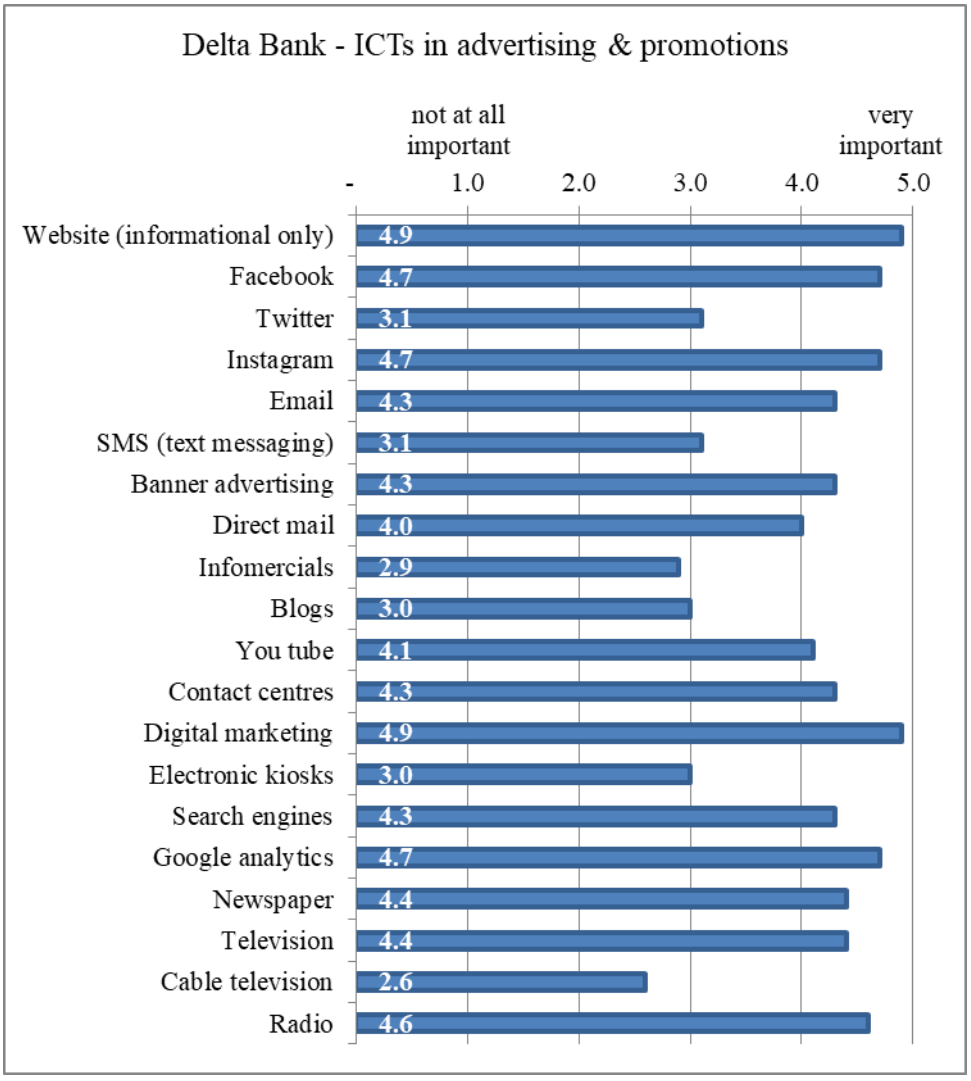
Beta Bank - ICTs in marketing





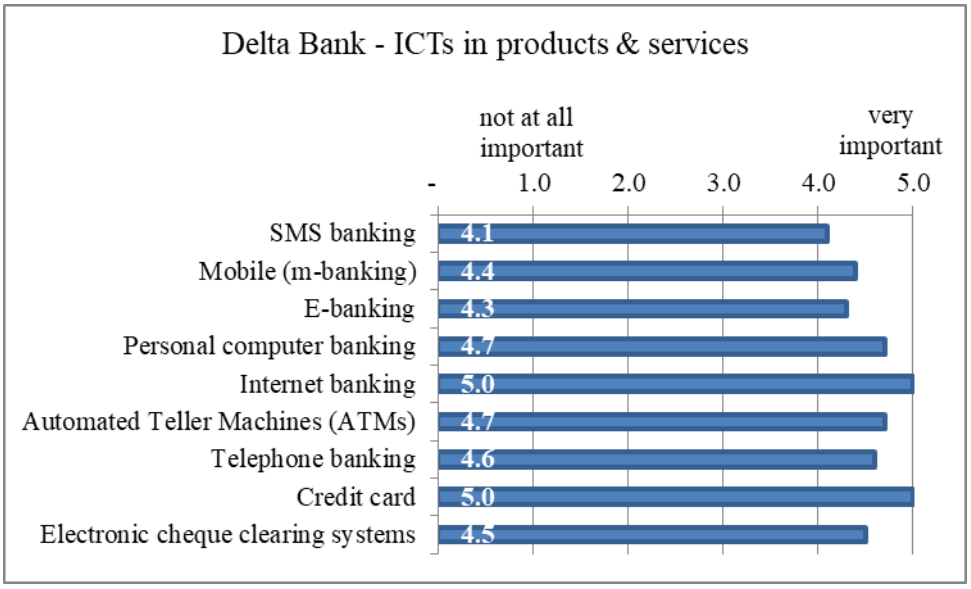
Appendix 5a

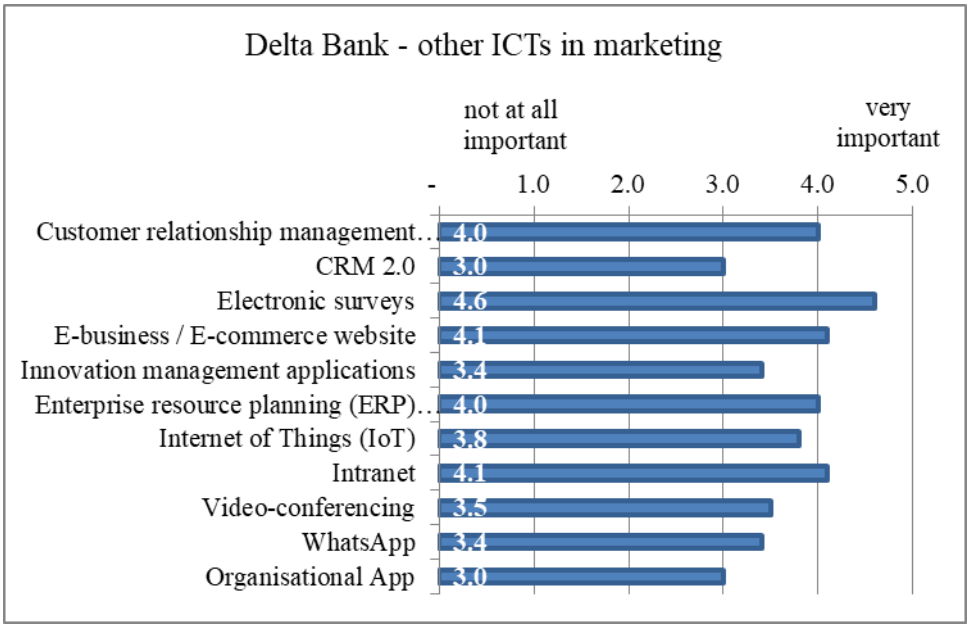
Delta Bank – ICTs in marketing



Appendix 5b

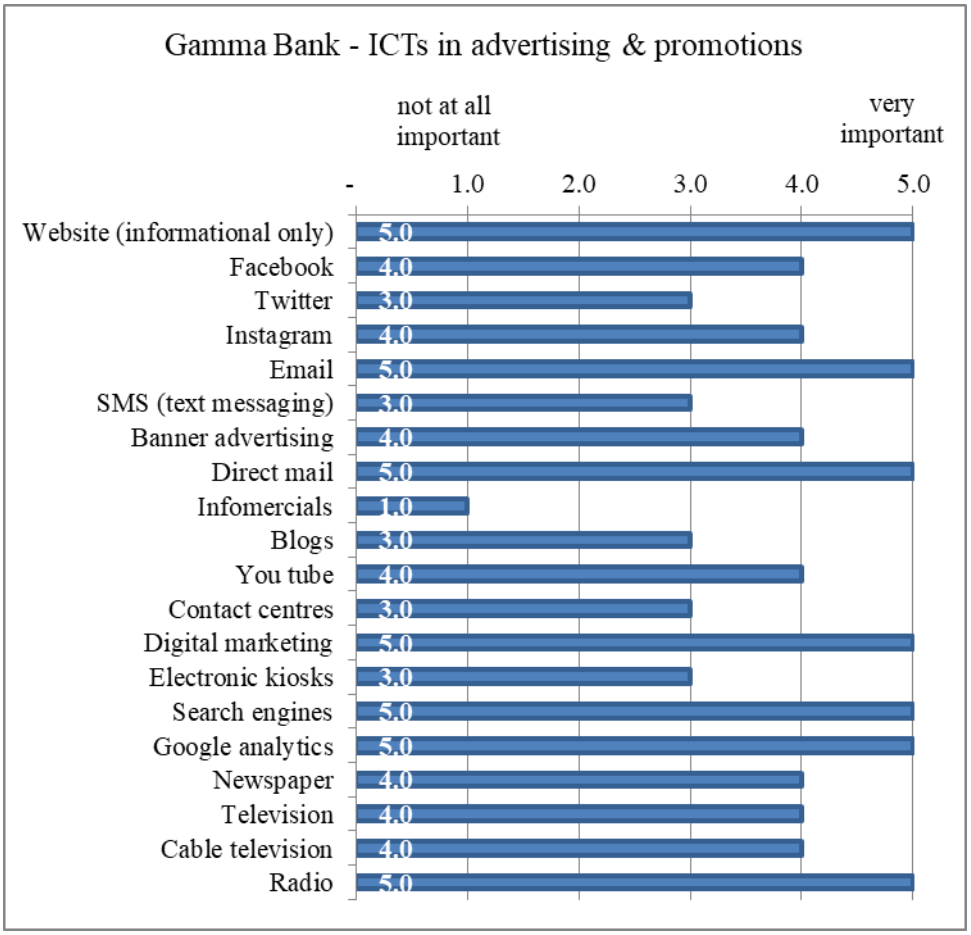
Delta Bank – ICTs in marketing





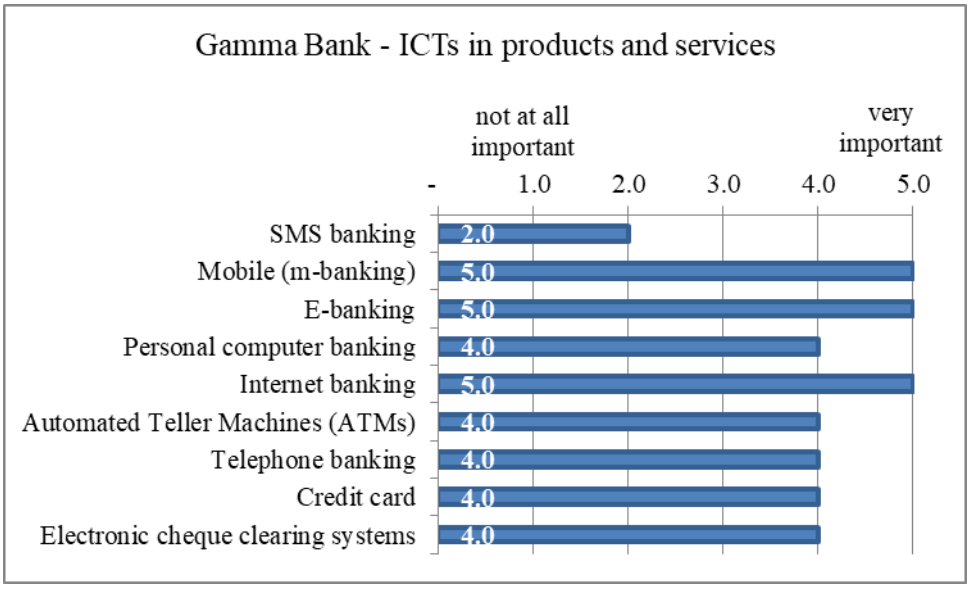
Appendix 6a

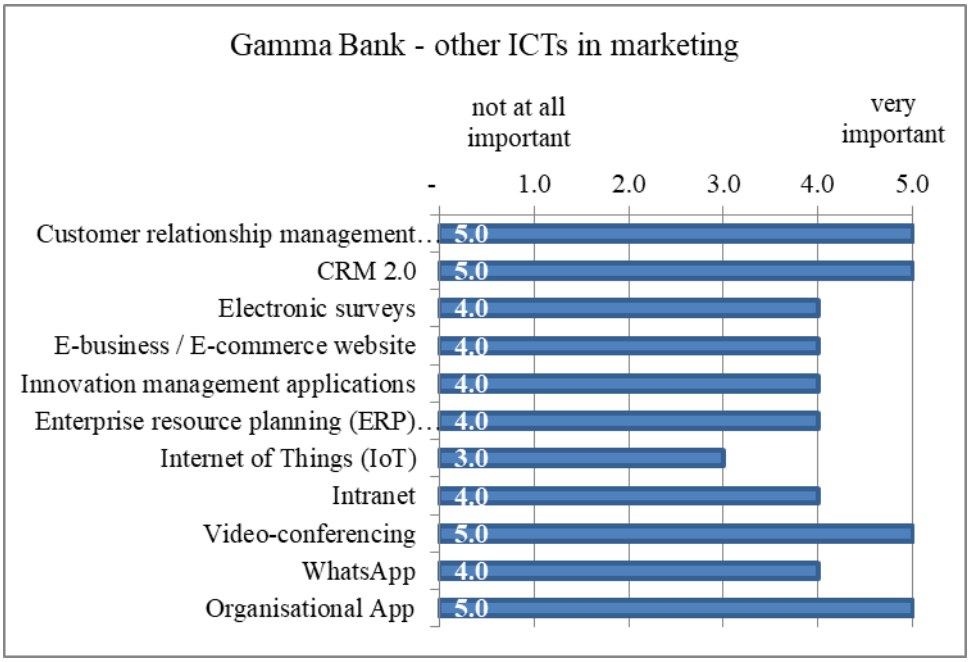
Gamma Bank – ICTs in marketing



Appendix 6b

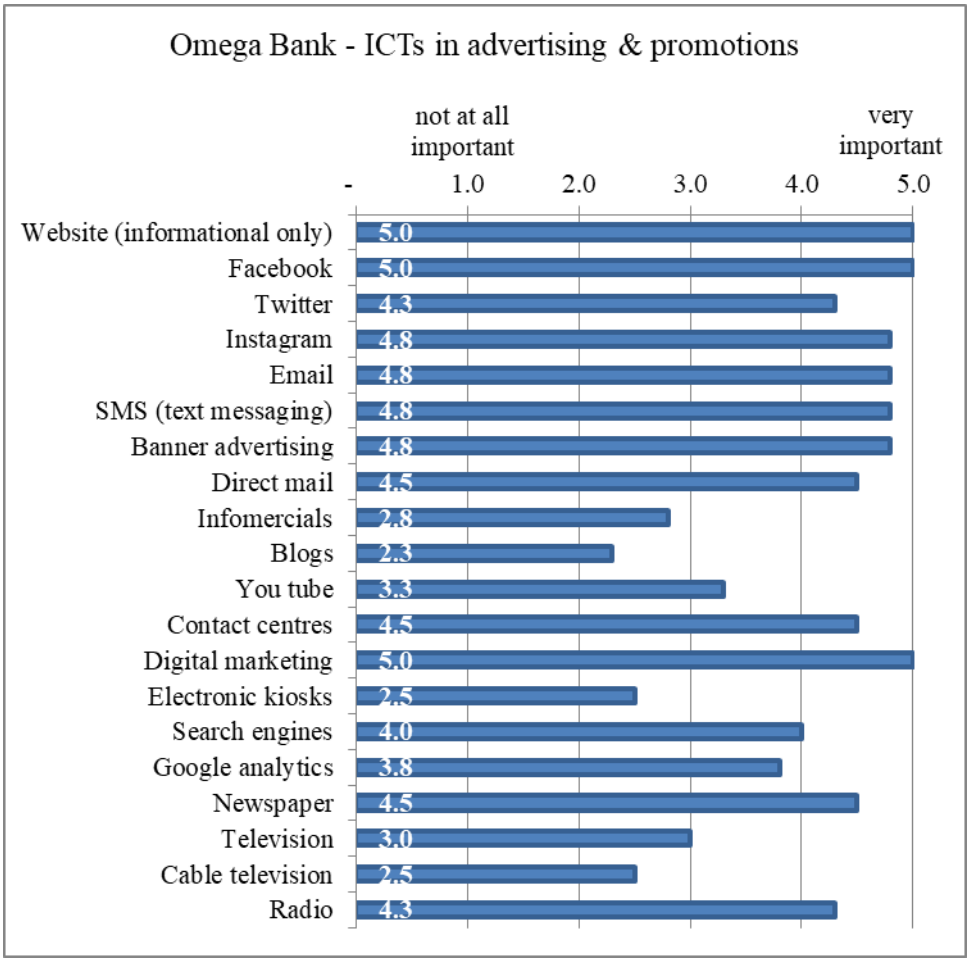
Gamma Bank – ICTs in marketing





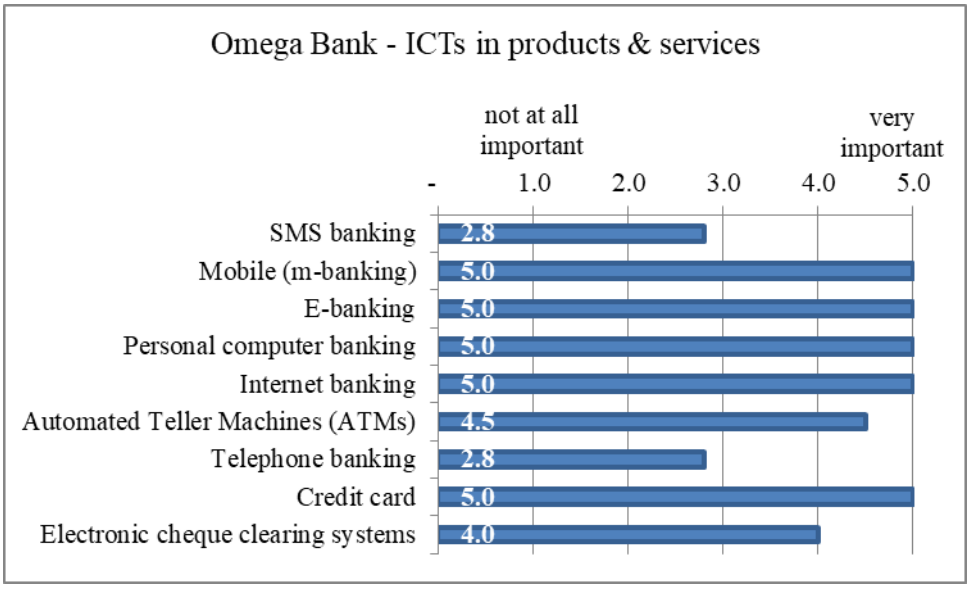
Appendix 7a

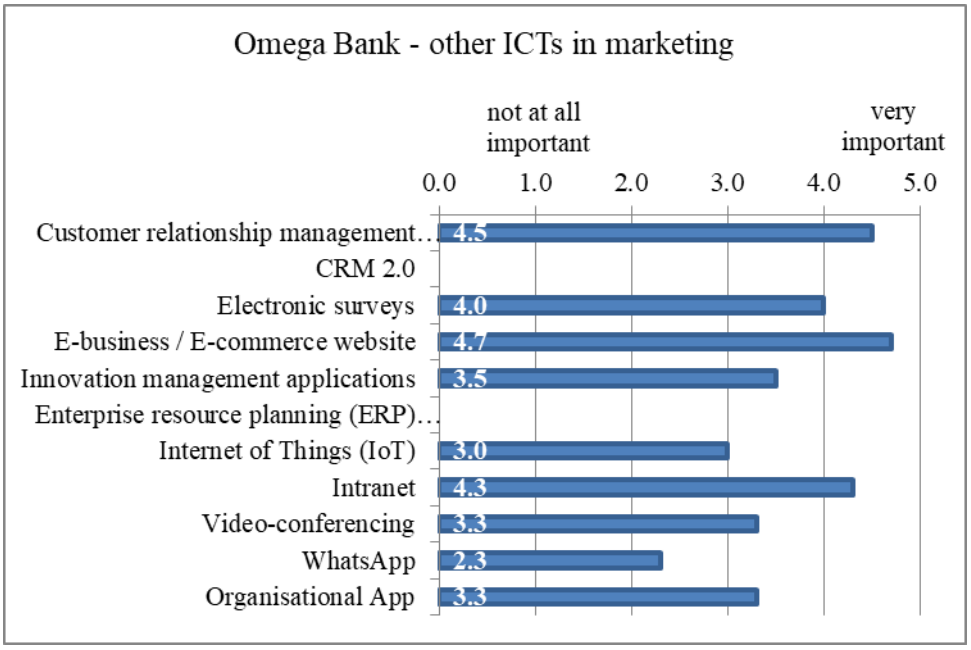
Omega Bank – ICTs in marketing



Appendix 7b

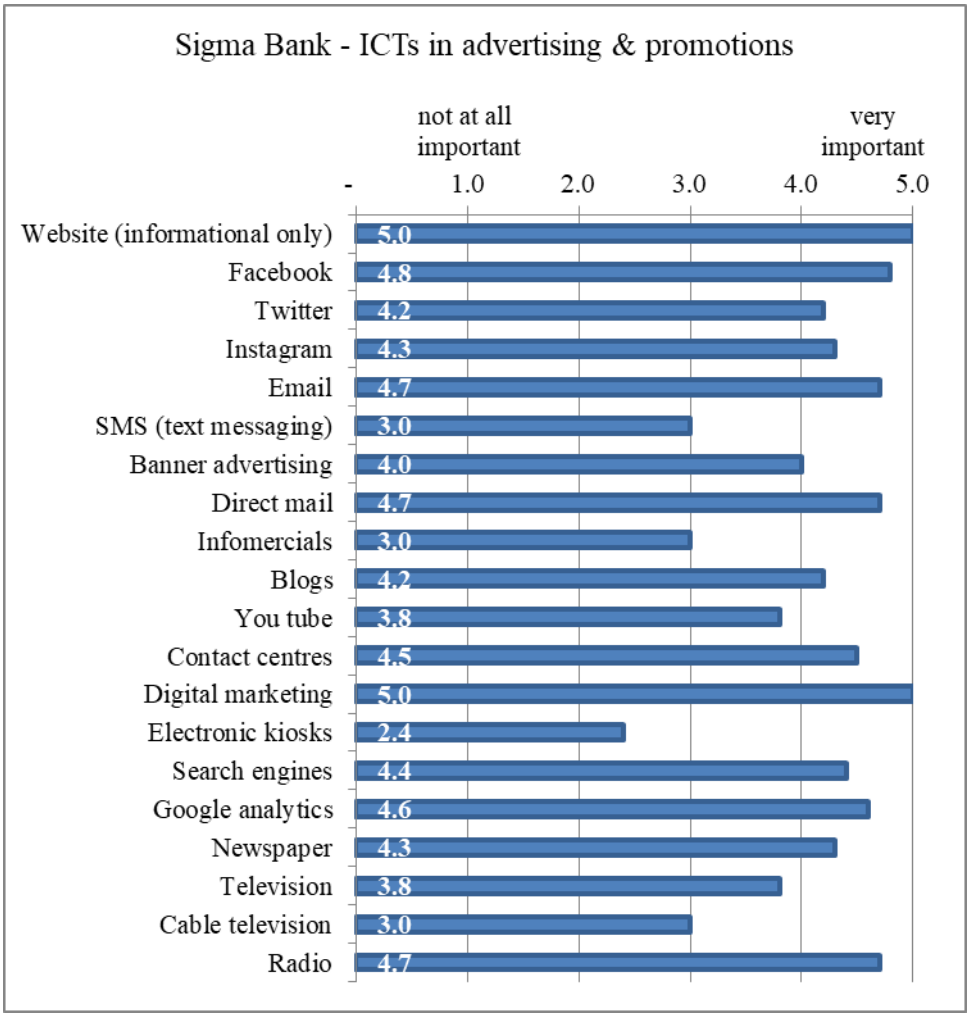
Omega Bank – ICTs in marketing





Appendix 8a

Sigma Bank – ICTs in marketing



Appendix 8b

Sigma Bank – ICTs in marketing