



**The Impact of Innovative Mobile Customer Relationship Management (mCRM) Processes on Customer Satisfaction of Samsung, Dubai, UAE.**

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## **ABSTRACT**

Samsung is a mobile phone manufacturer in Dubai, in the United Arab Emirates. Samsung enjoyed early success in the region, dominating the market by 2016. However, sales and the customer base have recently declined and it became difficult to maintain competitive advantage where rival offers were increasingly similar. The continued success of Apple along with the emergence of alternative mobile phone providers contributed to the decline in performance of Samsung. Consequently, management sought new ways to compete as a means of regaining success and mobile customer relationship management (mCRM) was introduced to provide customer support 'on-the-go' through a dedicated micro-site offering largely automated support with a toll-free number for higher level assistance. Whether developing mCRM would be successful in terms of raising customer satisfaction provided a basis for research due to a knowledge gap in the literature that has inconsistent findings. The first research aim was to identify and determine key innovative mCRM processes as there is no general agreement in the literature. The second research aim was to measure the impact of the identified innovative mCRM process on customer satisfaction of customers of Samsung in Dubai, UAE.

The latent construct of mCRM was subdivided into the indicators of customization, interactivity, convenience, service, and security as impacting the satisfaction of customers of Samsung in the mobile phone market, in Dubai, UAE. To test the hypothesis, a positivist philosophy was adopted based on the quantitative approach using an online structured, self-administered, survey of 250 respondents. The research instrument, a modified version from previous studies, indicated adequate reliability and validity via a pilot test. Correlation and regression analysis indicated a positive and significant relationship between all the indicators of mCRM and customer satisfaction. Although mCRM was found to be impactful on customer satisfaction, recommendations were made to improve mCRM to generate greater satisfaction. The theoretical or managerial implications of the research were considered in terms of adding to the literature and providing information for strategy. The limitations of the research were noted in being narrow in terms of industry and geographic context and the lack of qualitative research that could provide more profound insights along with the mediating effects of demographics that were not considered or analysed. Suggestions were made for further research such as considering other determinable factors, such as the industry, its size, sales revenue, and the compatibility of mCRM with other initiatives such as sustainability as impacting on organizational performance.

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## **CHAPTER 1: INTRODUCTION**

### **1.1 Samsung Gulf Inc.**

Samsung entered the UAE market in 2007, as a subsidiary of Samsung Electronics, the world's largest manufacturer of information technology and consumer electronics products, based in South Korea. It is a multinational company with a presence in 80 countries in the Americas, Europe, the Middle East, Africa, Asia, and Australia and employees just over 300,000 people. It is the twelfth largest company in the world with the market capitalization of \$550 billion in 2022 (Samsung Electronics,2022). Samsung Electronics is the world's largest manufacturer of smart phones and also produces TVs, computers, tablets, laptops, smart watches, printers, home appliances and security systems. The company also produces electronic components such as semiconductors, camera modules, semiconductors, batteries, and digital displays. Samsung Electronics contributes almost 20% of South Korea's GDP and operating profit reached almost \$12 billion in 2022, an increase of over 50% compared to the 2021 figure (Samsung Electronics,2022). Samsung has a presence in each of the seven Emirates in the UAE where the objective is promote the product and service suite, as no manufacturing takes place in the country. Samsung's vision to "inspire the world, create the future" and its mission to "devote our human resources and technology to create superior products and services, thereby contributing to a better global society" underline its ambition and dedication to innovation. Samsung, in the UAE, is dedicated to maintaining market dominance through a strategy of excellence and to this end, the company invested a record \$13.5 billion in R&D in 2021 to innovate its product suite and level of service going forward (Samsung Electronics, 2022).

## **1.2 Background**

The nature and role of business has changed from early industrialization to the post-modern contemporary economy (Almquist, Senior & Bloch, 2016). During this period, organized units of production transformed from being focused on agriculture to industry (Kumar & Reinartz, 2016). By the early twentieth century, entrepreneurs organized the factors of production to transform inputs to outputs with the sole purpose of making profit. This ‘shareholder theory’ of the firm focused on maximizing profit as a reward to the owners of businesses for investing in the production of products and services. Popularized by Friedman (1970), the shareholder theory emphasized the need for business to focus on profit and not any other objective as that was considered wasteful of resources and contrary to efficiency and effectiveness of business. In this way, organizations were production and product-orientated with the idea that greater efficiency and better products would bring higher profit (Wang et al., 2018). As economies grew and developed over time, the nature and role of business evolved with a greater emphasis on consumer-orientation (Morar, 2015). Thus, a marketing approach emerged whereby companies considered the needs and want of consumers and their satisfaction rather than a sole focus on the needs of the business (Wang et al., 2018). Consequently, business processes became more inclusive of the needs of parties outside the organization, particularly customers, while continuing to pursue profit maximization.

## **1.3 Emergence of CRM**

Business evolution continued as competition increased in markets within countries and between countries (Sidorchuk, 2015). This made it more difficult for businesses to gain new customers and consequently, organizations began to focus more on retaining rather than acquiring customers (Sidorchuk, 2015). Acquiring customers involves accessing new segments while retention entails the process of building a base of repeat purchasers. The shift in focus to retaining customers was based on a reality of not just



increased competition but saturating markets and homogenizing value propositions (Pine, 2015). Markets become saturated when consumer needs are largely fulfilled, and homogenized value propositions arise when similar products and services are offered by competing businesses. Under these conditions, repeat customers bring many advantages to organizations in terms of more frequent purchases, higher value purchases, positive referrals along with opportunities for up-selling and cross-selling (Wang, 2016). Accordingly, the management of customer relationships or customer relationship management (CRM) emerged as a business focus whereby organizational resources are redirected towards building loyalty rather than directed towards acquisition alone (Alim & Ouzel, 2014). CRM consists of business plans, strategies, and technologies that analyse and manage interactions with customers with an objective of improving relationships through higher levels of satisfaction (Kumar & Reinartz, 2016).

The emergence of CRM did not push customer acquisition to the periphery but made it beneficial, as customers acquired, can be retained. Indeed, over the past decade, the notion of CRM has become an increasingly popular area of interest for academics, researchers, and practitioners (Alim & Ouzel, 2014). Several factors account for the growing interest in why and how businesses manage customers for the purpose of retention including; globalization, shortening product life cycles, technology transfer and maturing markets (Wang, 2016). As globalization spreads and markets become more open, the level of competition in a range of business areas is increasing, making it more difficult to acquire customers. Product life cycles are shortening as innovation increases and customers seek new options; thus it is becoming more challenging to acquire customers. Product life cycles are shortening as innovation increases and customers seek new options; thus it is becoming more challenging to acquire customers. Greater technology transfer is occurring as developing economies gain an ability to use the same technology as developed economies, and this is increasing market contestability going forward. These factors are combining to create a more challenging market environment for today's organizations seeking business

success. Thus, a focus on customer retention emerged as an important means of better ensuring revenue streams in markets where acquisition became more difficult (Morar, 2015). CRM is “all management activities directed toward establishing, developing, and maintaining successful relational exchanges” (Morgan & Hunt, p.22, 1994). In this regard, it is business philosophy and practice of retaining customers through engagement by ongoing exchanges over time. This differs from transactional customer management that focuses on short-term exchanges for mutual gain. Additionally, transactional customer management focuses mainly on the features of products, minimal or reduced customer service, and one-way communication whereas relationship marketing emphasizes product benefits, high customer service, and two-way communication.

#### **1.4 From CRM to eCRM and mCRM**

The need of business to determine the sentiments and perceptions of their customers regarding products and services on offer led to the emergence of electronic CRM (eCRM) largely due to the ability of technology to facilitate real-time engagement between companies and customers (Al-Radaideh & Al-Talafih, 2017). eCRM technologies supported efforts by business to revolutionize traditional CRM with e-business applications that support business strategy (San-Martína et al., 2016). As the internet developed, electronic business (e-business) became an important platform to deliver CRM functions as an increasing amount of e-commerce is taking place through mobile devices (Al-Radaideh & Al-Talafih, 2017). Further technological advancements led to the development of mobile customer relationship management (mCRM) using applications designed for execution on a range of digital devices such as smart phones, tablet computers, laptops, netbooks, and an assortment of internet-enabled devices (Stocchi et al. 2021). mCRM is organizational initiatives that improve customer experience when using mobile devices through augmented processes that add value without additional customer cost (Ianessa & Chiliya, 2014). The ability of mCRM to utilize hand-held devices and technologies has facilitated it to be cost-effective and efficient

as companies no longer have to rely on third parties to gather customer information (Kumar & Reinartz, 2016). Also, it is easier to integrate and use collected information to compute and generate data analytics to evaluate the nature and state of consumer relationships the business has with its main customer segments (Buttle, 2013). It implies that mCRM techniques are essential in achieving success in areas such as market and product development as information collected can be used for providing products and services that better meet customer needs and preferences.

The adoption of mCRM applications is also important in enhancing the level of consumer involvement as more information becomes available to customers about the nature, values, policies, and products of An organization (Gebert et al., 2013). Accordingly, it facilitates an ease of access to information for both companies and customers that is enhanced through the adoption of mCRM processes. mCRM is an improvement on traditional CRM in facilitating customized and personal relationships between different customer segments and a company. Such relationships are important in promoting the collection and analysis of customer feedback that is used by organizations to develop customer strategies in segmentation, targeting, and positioning, with an aim of improving the levels of the response of the business to customer and market needs. The wide reach, low costs, and real-time feedback are some of the main factors that enhance the benefits of using mCRM activities (Buttle, 2013). Further, mCRM activities can be easily localized and customized to align with the characteristics of targeted consumer segments and address challenges experienced in areas such as language preferences, social value, and cultures that differ from market to market and region to region. The ability of mCRM to align with the cultural norms and values of targeted customer segments improves its efficiency and increases the likelihood of attaining envisaged goals (Gebert et al., 2013).

## **1.5 mCRM Processes**

### **1.5.1 Early mCRM**

The external processes of mCRM are the various functions and applications used to collect, analyze, and use customer information for customer facing purposes. At the early stages of mCRM, the processes were more simplistic than the innovative processes that emerged later. This is because the technology at the time was not sophisticated and the philosophy behind mCRM was less inclusive than today in terms of involving customers in communications and activities. Essentially, it was a sales tool as the various processes were used to deliver messages to customers to encourage demand by announcing promotions, discounts, and special offers. Although it was used to collect feedback from customers, this was largely in the areas of complaints rather than collaboration, suggestions, and ideas. It was known as “early mCRM” where the most common processes were push notifications, in-app messaging, SMS/MMS, news feeds and email (Erkan, 2018). Push notifications are automated messages sent directly to a mobile device, regardless of whether an application or a website has been opened. They are often used to promote products, enhance click-through rates, make announcements, and drive customers to other marketing channels. In-app messages are notifications that appear when an application has been opened by a customer in the form of pop-ups, prompts, or interstitials. Their purpose is to engage users by sending information, updates, rewards, while creating opportunities for up-selling and cross-selling. They generally work to engage users who have opened an app by sending messages that offer information, rewards, or monetization opportunities. SMS/MMS, news feeds and email are early mCRM processes used by businesses to engage customers by sending short, timely messages. While SMS is a text-based format, MMS can incorporate images and sound. Newsfeeds consolidate information sources in one place and provide updates (Whitehead, 2021) and email is electronic mail typically used for longer messages to convert a database into leads and encourage conversion while maintaining relationships with customers. As technology developed, the potential of mCRM expanded where it could be used for more than sales and promotional activities and

this gave rise to “innovative mCRM” which was more customer-centric inclusive, engaging, and responsive.

### **1.5.2 Innovative mCRM**

The current level of expansion and development in CRM technology is evident as it is forecast to expand from just over \$52 billion in 2020 to \$128 billion worldwide by 2028 (Raghav, 2022). Technological advancement along with a realization of the growing importance of mCRM spurred innovation in processes to create better and more meaningful relationships with customers. There was a change in emphasis whereby mCRM became a tool for two-way interaction between businesses and customers for the purpose of better anticipating and satisfying their evolving needs. Whereas the early mCRM processes were designed to provide information to customers, innovative processes were designed to collect information from customers on a collaborative, participative basis through greater engagement. There is no single classification or framework of innovative mCRM processes as they emerged from a variety of sources, over a period of time with varying terminologies used to describe essentially similar processes. Accordingly, various different innovative mCRM processes have been identified and described by a variety of authors. For example, Jayawardhena & Foley (2000) emphasized speed, content, design, interactivity, and security while O’Neill et al. (2001) focused on accessibility, responsiveness, reliability, empathy where responsiveness and speed are common factors in both studies. Yang & Jun (2002) identified customization, security, responsiveness, ease of use, reliability, accessibility. Security and responsiveness are the same factors identified by Jayawardhena & Foley (2000), O’Neill et al. (2001) and Yang & Jun (2002). Sohn & Tadisina (2008) found that trust, customized communications, ease of use, contents and function, reliability, delivery, and speed were key innovative mCRM processes. For Van Riel et al. (2004) accessibility, navigation, design, reliability, assurance, responsiveness, customization were the key processes. Customization is a common factor among the studies of Van Riel et al. (2004) and Yang & Jun

(2002). San-Martín et al. (2016) identified technological competence, innovativeness, and customer information management as key processes of innovative mCRM. Sinisalo et al. (2007) also highlighted the importance of technological infrastructure and marketing capabilities as important innovative mCRM. Processes. Hsu and Lin (2008) concluded that “convenience, flexibility and multimediality” (p.233) are essential components of a technology enabled CRM system. Verma and Verma (2013) considered personalization and interactivity as key elements of mCRM. Negahban et al. (2016) emphasized customer data quality, system quality, service quality as important in providing the important mCRM processes of personalization, convenience, and security. Liang et al. (2010) emphasized convenience, security, personalization, and integration across different customer touch points electronic (email, websites, social media) and manual (sales calls, direct mail, and catalogs). Rodriguez and Boyer (2020) identified collaboration and sales process capabilities as key elements of mCRM while Nigatu et al. (2021) focused on interactivity and responsiveness mCRM processes.

Throughout the literature, it is evident that different researchers emphasized different mCRM, processes and often the same processes using different terminology. A review of the various studies reveals that the most commonly identified innovative mCRM processes can be categorized as; customization (Anyebe & Zubairu, 2019; Beshir et al., 2020; Bilgihan et al., 2016; Camponovo et al., 2005; Chen et al., 2017; Mastorakis et al., 2015; Sinisalo et al., 2015), interactivity (Chen; 2012; Mastorakis et al., 2015; Lee et al; 2015; Negahban et al., 2016; Rayed, 2019; Sinisalo et al., 2007), convenience (Awasthi & Sangle, 2013; Camponovo & Pigneur, 2005; Chikweche & Fletcher, 2013; Kim & Hyun, 2011; Rodriguez & Trainor, 2016; Singh & Chilya, 2014; Sinisalo et al., 2015), service (Grandhi & Chugh; 2012; Kim, Lee et al., 2015; Łukowski, 2017; Negahban et al., 2016; Quadros, 2022; Ranjan, et al., 2009), security (Doherty, 2021; Lillard & Al-Suqri, 2019; Ranjan & Bhatnagar, 2010; Strzelecki & Rizun, 2022; Varghese, 2022)

Customization is the tailoring of a product or service to the expectations of customers that is enhanced through mCRM as it provides a means for collecting, storing, and using data used in tailoring products and services to individualize needs (Anyebe & Zubairu, 2019). Individualized dashboards, personalized reports and real time one-to-one support can all be achieved through mCRM (Beshir et al., 2020). Customization helps shape critical aspects of businesses by ensuring that quality is designed and delivered from the point of view of the customer (Mastorakis et al., 2015). Customization encourages consumers to develop positive perceptions towards business as it is a demonstration of the sensitivity of the business towards the interests and aspirations of customers (Sinisalo et al., 2015). Camponovo et al. (2005,p.1) explained that key feature of mCRM is that it can be used to “ create and manage personalized customer relationships” . Chen et al (2017) emphasized that through mCRM companies can customize products and services and tailor messages for greater relevance to individual customers. Bilgihan et al. (2016) confirmed that mCRM provides an innovative way to create positive customer experiences through customized interactions between buyers and sellers in an online environment.

Interactivity is the level of two-way communications between the business and its customer segments (Mastorakis et al., 2015). In this regard, customers can obtain additional information from businesses relating to their interests and expectations that must be reflected through the characteristics of the products or services on offer. Sinisalo et al.(2007) concluded that interactivity is a key element in building relationships between companies and customers and mCRM provides a flexible system to facilitate enhanced interactions through technology. Chen (2012) identified interactivity as important as it helps organizations better understand the evolving needs of customers through enhanced communications. By using mCRM, customers of an organization can collect information, make inquiries, and receive feedback on-the go, through a range of digital devices, thus improving customer interactivity (Negahban et al., 2016). The continuous interaction enhances the envisaged value proposition of the business as it develops a better understanding of the expectations of customers. Lee et al (2015) concluded that interactivity is “important

for improving user experience with mobile services” (p.296). Rayed (2019) also emphasized the importance of interactivity because it can motivate customers and increase demand by a greater sense of inclusion in being part of the value creation process

Convenience is a customer focused process that simplifies and improves accessibility to suit the needs of different customers which is facilitated by innovative CRM (Chikweche & Fletcher, 2013). This is because people can access and avail of mCRM processes without having to visit a physical outlet as they can use their mobile phone instead. (Kim & Hyun, 2011). An increasing range of services are being provided virtually such as technical support, product support, operational support, and delivery support (Rodriguez & Trainor, 2016). The convenience of being able to make payments through mobile technology was noted by Awasthi & Sangle (2013). Sinisalo et al. (2015) emphasized the convenience factor of mCRM as “customers can more easily access detailed information based on specific needs” (p.8). Singh & Chiliya (2014) further emphasized the convenience factor of mCRM, particularly for rural customers as it largely removes the need to visit physical outlets that might not be close to their location. Camponovo & Pigneur (2005) explained that through mCRM customers can enjoy “a set of unique advantages of mobile communications” (p.10) as they can avail of information and support at their convenience.

Service has been identified as a key component of innovative mCRM processes as customers can access an increasing range of services in a virtual, mobile environment. Kim et al. (2015) emphasized that mCRM provides access to a wide range of services such as technical advice, diagnostics, repairs, upgrades, and subscriptions that can be carried out using a mobile phone. Ranjan, et al (2009) noted the potential of mCRM to enhance the range and quality of services for customers as a single point of reference can be accessed, regardless of location. Negahban et al.(2016) noted that mCRM has the potential to improve the quality and consistency of customer service through automation of processes along with self-service and



assisted service. Quadros (2022) found that the majority of customers expect a quick turnaround in service requests, inquiries and support which is facilitated by mobile applications and is thus a key component of innovative mCRM. Łukowski (2017) also noted that there is a growing expectation for around-the-clock service which can be facilitated by innovative features of mCRM such as virtual assistants, chat bots, diagnostics, and repairs. Grandhi & Chugh (2012) also concluded that businesses using mobile CRM applications “can allow their staff to access customer information ubiquitously thus offering faster and improved services” (p.388).

Finally, security can be enjoyed by customers through the application of mCRM where data protection becomes enhanced through encrypted processes (Varghese, 2022). Technology has improved to ensure that customer data is secure in a virtual environment which is an expectation of today’s customers, and thus a key factor in innovative mCRM processes (Strzelecki & Rizun, 2022). Ranjan & Bhatnagar, (2010) explained that mCRM can provide data protection and security which can be enhanced if required by certain customers with sensitive data. Lillard & Al-Suqri, (2019) emphasized the importance of security in any mCRM system which is supported by mobile application management (MAM), Runtime Application Self-Protection (RASP), WAF solutions, multi-factor authentication (MFA) and payment card industry data security (PCI-DSS). Doherty (2021) concluded that mCRM can provide higher levels of privacy, accuracy and reliability of customer information compared to early CRM encouraging greater engagement with brands.

## **1.6 CRM v Customer Experience Management (CEM)**

Large organizations deploy various enterprise grade systems that support core business processes, by managing data acquisition, storage analysis and decision-making (Melnic & Gradinaru, 2016). These

systems enable the management of large information flows in organizations that are complex and geographically dispersed. CRM and CEM are subsystems of a larger enterprise management system (EMS) used to track and control the multifaceted operations of a business (Singh & Saini, 2016). Supply chain logistics, budgeting, sales analysis, inventory control, asset management, customer analysis and management are centralized through an EMS (Drobyazko et al, 2019). CRM and CEM are used to connect with customers for a better understanding of their needs, preferences, and behavior with a view to increasing sales and motivating loyalty. Although CRM and CEM have similar overall objectives, they focus on different aspects of customer interaction with an organization (Singh & Saini, 2016). The main difference is that CRM is broader in scope as it supports the entire activity of an organization in relation to customers in attracting, acquiring, informing, delivering, and servicing a diverse customer base.

CRM profiles customers according to demographic, geographic, psychographic, and behavioral characteristics to better respond to their needs, and encourage demand and loyalty (Melnic & Gradinaru, 2016). In contrast, CEM is focused on interactions between an organization and its customers in terms of the perceived experience (Drobyazko et al, 2019). The objective is to create positive, enjoyable, and memorable interactions with customers by creating better experiences. An effective CEM collects, analyzes, and responds to feedback by integrating the customer with the management platform (Singh & Saini, 2016). CRM and CEM have different emphasis as “CRM sees consumers as a collection of figures used for sales opportunities, CEM tries to add personality to the customer” (Oberoi, 2022). Based on a service dominant logic, it considers customers as “operant resources which have capabilities of combining their skills, experiences, and knowledge in the co-creation process for the advantage of another actor or the self” (Sahni, 2019, p 21). Thus, CEM is focused on identifying and creating “moments of truth” or key customer interactions for value creation. “With CEM, each time there is an interaction between the

customer and the brand, the consumer learns something new, with CRM, it's the other way round" (Oberoi, 2022).

CRM and CEM are increasingly being integrated by organizations to achieve better results. When combined, organizations can improve the overall process of satisfying and retaining customers as together they can improve both customer experiences and relationships (Ruparel, 2007). While the strength of CRM is in identifying, attracting, and segmenting customers, the strength of CEM is in proactively engaging with and dealing with customers as they interact with a brand (Drobyazko et al, 2019). As mCRM processes innovate and become more customer focused and interactive, a closer integration with CEM is likely to bring benefits. Consequently, CEM and CRM should be considered as complementary processes to enhance ERM in terms of building a satisfied and loyal customer base (Siegfried, 2022). Although essentially different in an operational sense, CRM and CEM can work together to help ensure optimal outcomes for customers and organizations.

### **1.7 mCRM and Customer Satisfaction**

As mCRM facilitates improved information about customers and their needs and preferences, it has been leveraged to improve levels of satisfaction (Gebert et al., 2013). Customer satisfaction is the ability of a customer to perceive that he or she has got value for money spent on a product or service (Alim & Ouzel, 2014). By implementing mCRM activities, organizations can raise satisfaction levels of customers (Chen, 2012). This is because customer satisfaction is based on cost/benefit evaluation of products and services by consumers where mCRM adds benefits without additional cost (Chen, 2012). Products and services can provide satisfaction to customers through confirmation of expectations, where satisfaction becomes an influencer of attitudes before and after exposure to products and services (Florek, 2012). Accordingly, confirmation occurs when customer expectations are met, resulting in feelings of satisfaction. In contrast, disconfirmation occurs when expectations are not met, resulting in customer dissatisfaction. Customer

satisfaction has become a strategic goal of contemporary organizations where the satisfaction of customers is a vital element in determining the nature of perceptions that customers develop of an organization (Morar, 2015). Moreover, such perceptions have significant impacts on the levels of loyalty that the main customer segments demonstrate towards the products and services of organizations (Sidorchuk, 2015). As businesses design and apply mCRM programs and activities, bonds develop with customers that perceive higher value from organizations, leading to improved satisfaction levels (Tabassum et al., 2013). Elevated customer satisfaction helps in the achievement of organizational goals and success in markets (Alim & Ouzel, 2014). This is important, as enhanced knowledge regarding how relationship management influences satisfaction can inform strategy development for improved competitiveness. The availability of a large data repository, facilitated by the adoption of mCRM, is crucial in facilitating the processes of customer selection and targeting. It becomes easier for a company to segment customers based on their needs and aspirations into areas such as product characteristics. The alignment of products to the expectations of users is vital in enhancing customer satisfaction and can be the basis of customers developing higher levels of attachment that eventually translates to loyalty (Ab Hamid, 2015).

The use of mobile platforms promotes the ability of a company to understand the most desirable characteristics of its products through feedback from customers. The application of mCRM provides an opportunity for today's organizations to reach out to a larger number of customers in a more interactive and relevant manner as smartphone ownership continues to grow across the globe. Accordingly, mCRM can enhance customer perceptions of value by raising the benefits associated with a product or service without any significant additional cost (San-Martín et al., 2016). In this way, mCRM is connected to customer satisfaction as it can improve value perception. This is particularly important in markets for technology-related products as diffusion of innovation increasingly homogenizes product offerings across companies and geographic borders. Accordingly, mCRM can add value without having to change products

whereby it can be an important contributor competitive advantage by differentiating the value proposition for customers compared to rivals.

## **1.8 Customer Satisfaction and Competitive Advantage**

“Organisations that best satisfy customers’ needs are the best places to satisfy their organisation’s needs” (Cook, 2022). Thus when a company has competitive advantage it indicates that it is successful in satisfying customers and in this regard, it is an indicator of success (Al-Shibly & Alkhawaldeh, 2017). Competitive advantage is the ability of a business to develop unique and novel ways of product and service provision to its customer segments (San-Martína et al., 2016). The notion of competitive advantage was popularized by Porter (1985) who emphasized the importance of organizations adapting to changing environments by altering value propositions. The identification of the competitive advantages of a business is vital as it informs the adoption of effective strategies that can be used to safeguard such advantages (Javed & Cheema, 2017). It is also necessary for businesses to not only focus on increasing their competitiveness but ensure that it becomes sustainable in relation to changing market and customer dynamics (Miles, 2013). Although Samsung is the leader in smart phones, its position is not guaranteed because of the dynamic nature of the market, particularly in terms of changes in competition and consumer behavior (Al-Shibly & Alkhawaldeh, 2017). Consequently, it is important that a company continues to add value in such a way as to satisfy customers and maintain superiority. Accordingly, satisfying customers becomes a primary goal which “allows a company to achieve superior margins and generate value for the company and its shareholders” (Peterdy, 2022). Developing better products does not guarantee market success unless customers value those products and are prepared to purchase those (Javed & Cheema, 2017). Moreover, customers may be seeking more than improve products such as better pricing, more convenient distribution, better support, and relationships with an organization. Consequently, organizations need to take a broad approach to satisfying customers and not just focus on product improvements. Samsung has

largely focused on product improvement and has been a pioneer in this area, however, this may not be sufficient going forward given the high level of competition and the increased capability of rivals. To maintain superiority, it is important that Samsung maintain and increase market share. This can be achieved by generating satisfied customers who choose the brand over rivals, purchase more frequently, spend higher amounts, refer others, and remain loyal to the brand (Al-Shibly & Alkhaldeh, 2017).

mCRM has emerged as a mechanism that can support customer satisfaction and competitive advantage from a consumer perspective (San-Martín et al., 2016). Because of the potentiality of mCRM, it is important that management at Samsung consider its development and deployment as a strategic tool due to its ability to raise customer satisfaction levels that improves their level of attachment to a business (Abdulateef et al., 2010). Accordingly, enhancing relationships with customers can help an organization become distinguished from competitors by developing novel and succinct strategies to meet and exceed customers' expectations

Consequently, mCRM can bring customers and organizations closer together via better information gathering and mutual understanding (Wali & Wright, 2016).

Another core attribute of mCRM is its ability to personalize information where different messages can be tailor-made to suit recipients. To enhance the effectiveness of customer engagement, businesses can prioritize the adoption of mCRM due to its ability to facilitate the gathering of different types of data from customer segments and then use the data to make informed decisions relating to such segments. Better alignment of decision making with target segment needs and preferences enhances the ability of a business to develop and sustain satisfaction (Sidorchuk, 2015). To this end, the deployment of mobile technologies in CRM management enhances levels of efficiency and reliability as information can be exchanged to and from the customer (Galvão et al., 2018). It means that through technology a business can reach its target customers, even in situations where such customers are located in remote locations. The capabilities align

with current trends where businesses are focused on integrating technological applications in their operations (Kim et al., 2015).

The use of such mobile applications in CRM is crucial as it facilitates the collection of quality data that can be used by businesses to design strategies that are responsive to the customer needs in highly homogenized markets (Kim et al., 2015). The trend is primarily common in the mobile phone industry where most of the players offer devices that are similar in areas such as functionality and capabilities (Alim & Ouzel, 2014). In such industries, the need to differentiate is vital as it increases customer switching costs and enhances the attractiveness of the firm's devices to the targeted customer segments (Ghaleno et al., 2016). One of the main attributes of mCRM is its ability to facilitate the maintenance of a customer database from which the company can gather insights into the main trends and dynamics in its current markets. Further, the availability of such data promotes diverse processes of data mining that can be carried out by the business to enhance its level of understanding and satisfying its customer segments (Hammer & Champy, 2013). mCRM further enhances the levels of satisfaction as customers can be reached in diverse locations in real-time (Galvão et al., 2018). Because of the capability of mCRM in improving customer satisfaction, it is important that organizations such as Samsung consider its adoption and deployment as a strategic tool for gaining the advantage of customer satisfaction going forward.

## **1.9 The United Arab Emirates**

The United Arab Emirates (UAE) was established as a federal state in 1971, consisting of seven emirates (PRS, 2018). With the discovery of oil, the UAE was able to capitalize on high petroleum prices in the mid-seventies to fund economic growth and development (World Bank, 2022). There has been notable progress in the last thirty years to the point where the country has achieved status as a global player, both politically and economically, in the Middle East and at the international level (Hamdan, 2019). Through investment in building a modern infrastructure and education system, the UAE has transformed from a

low-income, under-developed country, to a highly developed, prosperous, and modern economy (World Bank, 2022). Prosperity has been achieved through a combination of liberal economic policies with the attraction of foreign investment and expertise (Hamdan, 2019). In fact, 89% of the population is expatriate, attracted to the region as a center of development and opportunities (EDS, 2022). The government as per “Vision 2030” has targeted a reduced dependence on oil revenue through an economic diversification program. A target of “7.5% growth annually in non-oil industries” was set and the strategy has been successful as there was a “47% increase in non-oil exports” between 2019 and 2022 (Bussolainstitute, 2022).

Thus, the pro-business government has enacted laws and regulations to further encourage economic diversification with the aim of creating an environment conducive to innovation and technological progress. In this regard, there is an aspiration to be at the forefront in the utilization of renewable energy by the government through its long-term ‘Energy Strategy 2050’. The strategy focuses on increasing the utilization of renewable energy from 25% to 55% of the total mix by 2050 thus reducing carbon emissions of power generation by 72% by 2050 (HIS, 2018). Despite the economic slowdown and challenges faced during the global pandemic, the UAE economy grew by 5.7% in 2021 while inflation was moderate in the same time period at 3.5% (BNP Paribas, 2022). The economy is projected to continue on a strong growth path of 5%-6% in 2022 and beyond which would double the size of the economy by 2030 (Reuters, 2022). The population of the Emirates is approximately 10 million, with the largest proportion (1.8 million) aged between 30 and 34 (statistics-times, 2022). Most of the population reside in Dubai, the commercial capital, with 3 million residents forecast to double in size by 2027, presenting opportunities to business to meet the increased demand for products and services (PRS, 2018). An investment priority for the government is developing the telecommunications sector to support a smart economy which is forecast to grow by “3.5% during the period 2022-2027” (Mordor Intelligence, 2022).



### **1.9.1 Role of the Mobile Network Provider**

“A mobile network provider (MNP) is a telecommunications service carrier that owns the network equipment, base stations, and wireless spectrum” (Wright, 2021). In the UAE, there are two network providers; Etisalat Group and Emirates Integrated Telecommunication Company (EITC) both of which government owned are and controlled entities. The combined assets of the providers total circa \$50 billion (Etisalat, 2022; EITC, 2022). The sector is under the regulation of the UAE Telecommunications Regulatory Authority that controls licensing, e government initiatives along with access equity and service quality. Provision of telecom services is closed to outside providers. The Etisalat Group “was the first operator in the MENA (Middle East and North Africa) region to establish a mobile network” (Telcom Review, 2019) and continues to be a pioneer in innovation in the provision of telecommunication infrastructure in the region. It is important to have an efficient mobile network provider when organizations are implementing mCRM to ensure an effective infrastructure to deliver the important processes for customers. In this regard, organizations based in the UAE benefit from excellence in mobile network provision as the “UAE has one of the world's fastest median download speeds on 5G networks and one of the highest fixed broadband speeds” (Mordor Intelligence, 2022). The transition towards 6G (a mobile network one hundred times faster than 5G) has already begun to drive the growth of the market (Mordor Intelligence, 2022). For Samsung, the increased efficiency of the mobile network provider’s infrastructure supports innovative mCRM processes, specifically in terms of integrating more interactive audio/video content as well as content suitable for VR/AR devices. In this way, mCRM can become more attractive, engaging, and impactful in developing relationships with customers. Thus, in the UAE, Samsung will be able to continue improvements in mCRM processes as mobile network provision will be able to support such innovation going forward.

### **1.9.2 The UAE Mobile Phone Market**

Increased demand for cloud, data centers, 5G and mobile internet services has largely driven the market's growth in recent years along with the impact of the global pandemic which resulted in "67% of UAE adults are engaging in more video calls, 78% using social media more often, and 74% watching more TV and movies online" (Mordor Intelligence, 2022). The increasing affordability of handsets and data services has resulted in the highest mobile penetration in the world of 200% in 2021 (O'Grady, 2022). As consumers migrate to VoIP services, videoconferencing and IP messaging, the consumption of data services is expected to grow to provide opportunities for increased business revenues going forward. The UAE mobile handset market is highly competitive as key providers vie for market share with Samsung the leader with 22% share in 2021 followed by Apple at 16%, Xiaomi at 14% and Vivo at 9% (IDC, 2022). High projected economic growth, growing population and continued inward investment has attracted mobile handset providers to the region in an effort to capitalize on opportunities (O'Grady, 2022). This has given rise to increased competition in the mobile handset market. Competition has been based on product development in the past, as mobile phones morphed from feature-phones to smartphones but possibilities in hardware innovation are limited with current technology.

### **1.9.3 Declining Handset Demand**

Apple and Samsung have dominated innovation and captured market share with continued improvements in functional and aesthetic dimensions. Longer battery life, higher screen resolution, thinner form factors, and added applications were key drivers of success for the larger players in the market (Geronimo, 2018). However, in recent years, technology diffusion has enabled greater competition in the smartphone market with the emergence of new brands challenging for market share. A prime example is Xiaomi, the Chinese electronics company that released its first smartphone as late as 2011 and has grown to be the fourth largest manufacturer of smartphones globally (Statista, 2018). Homogenization of product offerings and increased competition have combined to challenge mobile handset suppliers, and the challenge has increased recently

as the global market has experienced some downturn. According to figures from IDC (2021) the same trend applied in the UAE which “saw shipments decline 3.1% by Q3 in 2021”. For Samsung, there has been a decline in demand in certain segments of the market. The mobile handset market is segmented across three broad categories; consumers, enterprise, and the public sector. The consumer segment represents private demand, the enterprise sector represents corporate demand, and the public sector is demand from government organizations. While Samsung continues to dominate across the categories, the company has experienced a decline in demand from the public sector as an increasing number of contracts have been signed with rivals offering increasingly competitive packages (Arabian Business, 2022). Another factor that has contributed to the decline in demand is the fact that people are not buying mobile phones as frequently as in the past. One reason is the high saturation rate in the market as “the country has 228 phones per 100 people; this is as if every person there has two phones” (Expatica, 2022). Another reason is that smartphones have improved to the point where purchasing a new phone offers limited advantages compared to previous times when innovation was more accelerated (Arabian Business, 2022). A further reason is that there is an increasing number of mobile phone handsets being sold on the second-hand market, an emerging trend where people can access high quality smartphones at affordable prices (Arabian Business, 2022). Today’s smartphones have reached a level of competency that means that they do not have to be replaced as frequently for new models and consumers are taking advantage.

## **1.10 Rationale for the Research**

There are managerial and academic reasons for the research. For management, the research will provide information that could be useful in forming strategy towards mCRM at Samsung. There has been a realization that engaging customers by mCRM might provide a valuable means of increasing satisfaction in a market where achieving the same outcome is increasingly difficult due to a technological plateau and

increased competition. Samsung has been at the forefront of innovation in hardware (mobile handsets) which has helped the company to achieve market dominance, however, by developing improved software (mCRM) the company has an opportunity to increase customer satisfaction at a fraction of the cost of hardware investment. However, the managerial problem is that the company is uncertain as to whether mCRM would significantly impact customer satisfaction and particularly in terms of what aspects (innovative processes) of mCRM the company focus should on. Thus, there is a managerial reason for the research. For academics, the research will provide information that could be useful in filling a knowledge gap on whether mCRM significantly impacts customer satisfaction. The knowledge gap exists because the literature on the topic is inconclusive given that some studies provide evidence of the relationship while other studies refute the relationship and even further studies are inconclusive on the relationship. Moreover, there has been no study to date on the topic in the UAE, further contributing to the deficit of knowledge (Grandhi & Chugh, 2012). Some studies found a positive and significant impacts of mCRM on consumer satisfaction (Alnawas & Aburub, 2016; Alolayan & Al-Kaabi, 2020; Deng et al.,2010;Grandhi & Chugh, 2012; Hsu & Lin.,2008; Ianessa & Chiliya,2014; Kumar & Pansari,2016; Martín et al., 2015; Mastorakis et al.,2015; Sunny & Abolaji, 2015; Talet et al.,,2011;Valsecchiet et al.,2007). Other studies did not conclude a positive and significant impact of mCRM on customer satisfaction of customers (Alim &Ouzel 2014; Awasthi & Sangle,2013;Becker et al, 2009; Boris 2013; Chan, 2012; Elmuti et al, 2009; French et al., 2011; Rajini & Sangamaheswary,2016;Saleem &Rashid,2011;Silberer & Schulz, 2012; Singh, 2011;Suntornpithug & Suntornpithug, 2012;Vorley & Budd, 2013; Zengh, 2011). Further studies are inconclusive as to whether mCRM significantly effects satisfaction of customers (Camponovo, 2005; Dovalienea et al., 2015; Dursun & Çelik, 2017;Ndubisi, Kok et al., 2007; Liu et al., 2020; Payne & Frow, 2005; Smith, 2007; Viljoen et al., 2005). Thus, a knowledge gap on the impact mCRM on customer satisfaction emerges where academics and practitioners are calling for more research (Awasthi & Sangle, 2012; Grandhi & Chugh, 2012;

Mastorakis et al., 2015). In response, this study aims to address the knowledge gap specifically in the case of the effect of mCRM on customer satisfaction in the mobile phone sector for Samsung, Dubai, UAE.

### **1.11 Research Objectives & Questions**

The objectives of this study represent the specific goals of carrying out research and in this sense represent details desired in state outcomes. Research questions represent the areas of knowledge that need to be addressed where answers provide information that is relevant to solving a research problem. In the case of Samsung, Dubai, UAE, the research questions are as follows: For the organization under study, the research objectives, and questions are as follows:

RO1: To identify and determine the key innovative processes of mCRM.

RQ1: What are the key innovative processes of mCRM?

RO1/ RQ1, identifying and analyzing key processes of innovative mCRM is integral to the study in terms of addressing the research problem which is to determine the impact of innovative mCRM processes on customer satisfaction of Samsung, Dubai, UAE. Addressing the research problem requires an identification of the key processes of innovative mCRM and an analysis of these processes to better understand their potential importance in terms of contributing towards customer satisfaction. These innovative processes are not universally agreed upon in the literature as different researchers have focused on different processes, thus it becomes an objective of this research to identify and determine the key process by an extensive review of the literature. Samsung introduced mCRM in mid-2013 providing basic customer support services for owners of mobile handsets. The system was updated in 2020 where customers could access support 'on-the-go' through a dedicated Samsung micro-site offering largely automated support with a toll-free number for higher level support. Feedback from customers on mCRM has been positive, indicating demand for more comprehensive mCRM services that could be a basis for improving customer

satisfaction. Management at Samsung has become interested in mCRM, thus becomes important to identify and analyze the mCRM innovative processes that could potentially contribute to customer satisfaction.

RO2: To determine the effect of innovative mCRM on customer satisfaction.

RQ2: Does innovative mCRM significantly impact customer satisfaction?

RO2/ RQ2, determining whether innovative mCRM significantly impacts customer satisfaction is integral to the study, as it addresses the second element of the research problem which is to determine the impact of innovative mCRM processes on customer satisfaction of Samsung, Dubai, UAE. While the first research objective/question of the study is to identify and determine the key innovative mCRM processes, the second research objective/question is to determine the impact of the processes on customer satisfaction. The outcome of this determination is important for Samsung in terms of strategy formulation, where if it is found that innovative mCRM processes contribute to customer satisfaction, more resources can be invested in this area while the converse is also true. Therefore, research objective/question one and research objective/question two form the basis of this study in terms of addressing the research problem and providing feedback for Samsung management for improved strategy.

## **1.12 Research Scope**

The scope of research considers the relevant boundaries and limitations that restrict the collection and analysis where this research has several restrictions. The study is limited to a single industry and this constrains the external validity of the findings. Accordingly, findings might not be generalizable to other industries that have different circumstances. Another limitation is that the geographic scope of the study is relatively narrow as it focuses on a small geographic area that could restrict data collection and research findings. In addition, the research does not factor in the moderating effect of demographics that could influence research outcomes. Instead, data is analysed on an aggregate basis to identify relationships

between independent and dependent variables. Finally, the study is relatively short-term whereas a longitudinal longer-term study might provide more information and insight by measuring customer feedback over multiple time periods. However, research validity and reliability are enhanced by ensuring an adequate sample size and systematic use of quantitative methods and analysis.

### **1.13 Dissertation Organization**

The first chapter is an introduction that details the study's background, the research problem rational, objectives together with the research scope and research outline. The second chapter contains a literature review that places the work in the context of existing studies and knowledge while developing a theoretical framework and working hypothesis. The third chapter describes the research methodology of the study by providing information on the method of data collection, population sampling, analysis of data while treating issues of reliability and validity together with relevant ethical considerations. The fourth chapter presents the results of the research and analyses the data by relevant findings that are considered in reference to prior studies evaluated in the literature review. This chapter confirms or rejects the research hypothesis. The fifth and final chapter is a conclusion that provides a summary of the research along with details of the overall findings while making suggestions for further research.

## **CHAPTER 2: LITERATURE REVIEW**

### **2.1 Introduction**

The literature review begins by investigating the evolution of mCRM as this plays a vital role in understanding CRM developments, associated benefits, and limitations. It is necessary that CRM is explored from these perspectives to have ample insight into mCRM emergence, including its scope and benefits. The review investigates the benefits of mCRM over traditional CRM before embarking on an examination of customer satisfaction and its connection to mCRM. Thus, the succeeding customer satisfaction segment explores the different models of satisfaction, as well as the benefits associated with improved customer satisfaction. The section progresses through the exploration of the growing importance of customer satisfaction in today's markets. After this, the literature review focuses on competitive advantage and how mCRM can contribute to advantage from a consumer perspective. The final section of the literature review culminates in the formulation of a theoretical framework and hypothesis on the relationship between mCRM and customer satisfaction.

### **2.2 Evolution of CRM**

Customer relationship management (CRM) is an approach that is used by organizations to manage interactions with present and prospective customers by "taking into account information on customer history" (Lillard & Al-Suqri, 2019, p. 19). This interpretation stems from the fact that analysing customer-related information is fundamental to improving organizations' relationships with customers through improved understanding of needs and preferences. Notably, these relationships can play a central role in helping organizations secure enhanced competitive



capabilities in an increasingly dynamic and competitive environment (Marino & Lo Presti, 2018). Thus, CRM is often defined in relation to strategies that focus on analysing customer information based on interactions with organizations. According to Dursun and Çelik (2017), CRM embodies diverse approaches that depend on customer-related data in order to enhance business relations and ultimately lead to increased sales. As such, this definition stems from the fact that CRM practices and strategies necessitate the deployment of organizational capabilities in the compilation of data acquired from diverse communication channels.

In the opinion of Azad and Ahmadi (2015), CRM definitions should incorporate the ideas of customer focus and response so that CRM approaches used by organizations reflect the need for companies to acquire a better understanding of existing and prospective customers, which is critical to enhancing an organization's ability to satisfy customers ever-changing needs. CRM has been defined in terms of systems that help manage customer-related information. This particular approach to the concept focuses on the supportive systems that make CRM possible. According to Kim et al.(2015), these systems include sales management systems and communication channels that are used to acquire actionable information in the course of organizations routine activities. This approach has been deemed useful in that it fosters a more comprehensive understanding of CRM, owing to its incorporation of supportive systems, which are essential in as far as possibilities of attaining actionable insights through CRM are concerned.

Thus, by integrating the sales and communication supportive systems, the definition brings out the need for organizations to integrate CRM strategies with social media in order to facilitate both team communication and the ability to acquire actionable information from customers (Al- Nassar, 2015). The definition of CRM provided by Aziza, Oubrich, and Søylen (2015) goes a step further to include the aspect of tracking customer interactions and managing customer accounts, although

these two components have been presented in other definitions. Nonetheless, this definition emphasizes the need for CRM approaches to be able to help organizations keep track of their interactions with customers by integrating specific strategies with the customer lifetime value (CLV) concept, which is essential in establishing enhanced customer relationships (Soltani & Navimipour, 2016). As relates to CRM, CLV helps organizations to estimate the net profit that it can derive from future relationships with each customer.

Notably, this definition differs from definitions provided by other scholars in that it captures the necessity of leveraging the vast amounts of information that organizations accumulate to foster loyalty when interacting with their customers (Nyadzayo & Khajehzadeh, 2016). Despite these closely related definitions, it is important to note that CRM can suggest three different aspects; technology, strategy, and process-oriented functionality (Rahimi and Gunlu, 2016; Nimako and Mensah, 2015 & Muther, 2012). According to Rahimi and Gunlu (2016), the technological aspect means that CRM is less of a strategy and more of a technology product that facilitates recording, reporting, and analyses of interactions between organizations and their customers.

On The other hand, CRM to others is more of a strategy than a technology. In the opinion of Nimako and Mensah (2015) this view stems from a business perspective that relationships with customers are fundamental in matters related to business success and should, therefore, be managed efficiently.

Others view CRM based on its process-oriented functionality. In defending this point of view, Muther (2012) opined that, as a system, CRM encompasses well-designed processes that are geared towards enhancing organizational efficiency in nurturing and managing relationships with current and prospective customers. In matters concerning retaining customers, the traditional

business approach proved quite ineffective (Maghnati and Ling, 2013). This conclusion was reinforced by Abu-Shanab and Anagreh (2015) describing the traditional approach as transactional, being focused on attracting new customers without sufficient attention on maintaining customers once transactions were completed. Such a description affirms the idea that the transition from transactional management to relational management was triggered by the need for organizations to retain customers as markets became more competitive and customers more discerning (Liu, 2015). Consequently, a new approach was built upon a relationship management approach was deemed necessary that caused CRM to evolve into an approach focused on customer retention while simultaneously being able to attract new customers. As Chemingui and Lallouna (2013) asserted, this particular change encouraged organizations to tailor their CRM strategies towards the creation, maintenance, and enhancement of robust value-laden customer relationships, making it possible for companies to retain newly acquired customers (Maghnati and Ling, 2013). However, it is important to note that this new approach did not fully negate the acquisition focus of the traditional model, as the relationship management approach was able to support organizations in achieving higher profitability through improved customer understanding and fulfilment (Maxwell & Khan, 2018).

According to Zhao and Balagué (2015) the relationship management model became more efficient owing to its ability to enhance organizational capabilities in attracting new customers while retaining an existing customer base through actionable information obtained from relationship management. This explains why Bhat and Darzi (2016) believe that the relationship management model of CRM was more efficient than the preceding transaction-oriented approach since it helped firms to prioritize on maintaining their existing customer base while building long-term relationships. In the opinion of Kim, Lee, Wang, and Mirusmonov (2015) reliance on the

transactional model was short-lived because organizations focused their marketing efforts on products rather than discovering and fulfilling newly emerging needs through improved service. This loss of focus on establishing sustainable relations with customers was linked to business losses in terms of existing customers causing organizations to adopt the relationship management model (Kirana & Khrismayanti, 2018).

## **2.3 The Benefits and Limitations of CRM**

### **2.3.1 Benefits of CRM**

#### *Customer identification*

Research indicates that CRM plays an important role in the identification of potential customers of a business (Wali & Nwokah, 2016). Such an assertion is further supported by the fact that CRM practices help companies monitor existing customer profiles, which are critical in determining which customers they should target in order to gain maximum returns (Dursun & Çelik, 2017). This CRM capability stems from the assumption that new customers are indicative of an organization's future growth opportunities which can be seized by analysing information on newly acquired customers (Al-Nasar, 2015). On the other hand, it is important to note that organizations making use of CRM systems can only appropriate the customer identification advantage after having sustained relations with existing customers (Wali & Nwokah, 2016).

#### *Customer acquisition*

CRM systems that are effectively established and implemented help organizations' employees to better acquire customers (John, 2018). According to Sinisalo, Karjaluoto, and Saraniemi (2015) this is because CRM embodies inherent capabilities that facilitate more efficient and faster responses when it comes to customer leads and data. This means that customers more readily

turn their queries into purchases as a result of prompt organizational responses. Studies indicate that companies that have implemented CRM strategies successfully, have been able to improve their customer acquisition turnaround durations by approximately 42% (Phung, 2016).

#### *Improved cross and up-selling*

According to Tseng (2016), cross-selling encompasses the provision of complementary products based on products previously purchased by customers. Up-selling, on the other hand, involves offering customers premium products that fall into the same product-class in which customers have made previous purchases. This makes CRM extremely beneficial in light of the fact that the system incorporates both approaches, which enables organizations to use available data when seeking to enhance sales. As observed by Dewnarain, Ramkissoon, and Mavondo (2019), CRM not only facilitates faster offers to customers but as well fosters employee understanding in matters that concern customer needs. This means that in the course of time organizations are better able to implement up and cross-selling more efficiently, being able to anticipate their customer's related purchases. Notably, cross and up-selling become possibilities for organizations that embody the marketing component in CRM mechanisms (Hargreaves et al., 2018).

#### *Streamlined sales and promotional activities*

In the opinion of Greve and Schlüschen (2018), CRM systems have the ability to simplify the development of more comprehensive and efficient communicate channels. For instance, technological integrations in collaborative voice-response-systems make the work of sales representatives and the organizations easier and more effective. Subsequently, organizations that have harnessed CRM capabilities are able to avail customers with diverse communication avenues. These ensure suitable communication delivery as well as prompt responses to customer queries

and acquisition of useful feedback (Hargreaves et al., 2018). The ability of modern organizations to enjoy this advantage depends on an appreciation and incorporation of the innovative processes underpinning CRM.

#### *Enhanced customer loyalty*

CRM systems aid companies in using less costly approaches when faced with the need to determine customer loyalty levels (Lillard & Al-Suqri, 2019). Dursun and Çelik (2017) ~~be~~ that organizations have learned how to use loyal customers as points of professional reference in light of the services on offer. As such, businesses can use this as an avenue for endorsing their services in ways that reflect new prospects depending on the testimonials provided by their loyal consumers. Pelet (2017) concludes that CRM enables companies to learn and respond to evolving customer preferences and these raises exit costs thereby enhancing retention and loyalty.

#### *Enhanced communication*

Although CRM strategies were conventionally viewed in terms of contribution towards customer attainment and retention, studies suggest that modern organizations have learned how to deploy CRM strategies from a perspective of enhancing communication (Diffley, McCole & Carvajal-Trujillo, 2018). This is possible because different organizational subdivisions can share information related to customers remotely, which is critical to improving responsiveness. Notably, this strategy produces better results than in cases where CRM is absent. Where CRM systems have not been successfully deployed, it is more difficult to link operations and satisfy customer needs due to a lack of communication with customers for feedback that informs improving the value proposition (Lillard & Al-Suqri, 2019).

### *Improved marketing*

Marketing is the anticipation and satisfaction of customer needs and wants effectively and profitably (Pelet, 2017). Thus, organizations that are marketing orientated are customer focused, whereby company resources are organized to provide the maximum value for a market as determined by the perceptions of customers. In order to be able to anticipate and satisfy the needs and wants of customers, it is important to have adequate information about their evolving tastes and preferences where CRM has become invaluable tool in this endeavor (Lillard & Al-Suqri, 2019). According to Greve and Schlüschen (2018), CRM better enables organizations to develop and deploy strategies that are related to customer behavior and needs. Supporting this opinion, Zhang, Watson IV and Palmatier (2018) argue that CRM provides organizations with useful information and ideas concerning their most profitable customer segments, which ultimately improves the efficiency of their sales representatives. By helping optimize marketing strategy and tactics, CRM makes it possible for companies to allocate their resources more effectively and efficiently (Khan, 2012).

### **2.3.2 Limitations of CRM**

#### *Difficulties in ensuring updated data*

As was argued by Abu-Shanab and Anagreh (2015), that processes entrenched in CRM work effectively when data analysis is carried out effectively. This implies that when outdated and old data are incorporated before embarking on implementation it is impossible to attain desired outcomes. As such, data needs to be prepared prior to implementing CRM to pave the way for the acquisition of actionable information. Although this has been a prevalent problem, it is important to note that it can be avoided. By highlighting and expounding on the necessity of accurate CRM

data organizations can help avoid cases of outmoded or incorrect data being fed into CRM systems (Noori, 2015).

### *Change resistance*

Introducing CRM in over 38% of modern organizations has remained a challenging undertaking (Noori, 2015). Change resistance related to CRM introduction in many organizations has stemmed from an inability of executives as relates to efficiently communicating the essence and importance of adopting CRM related approaches. Further, organizations often face passive resistance even in cases where executives have communicated the importance of CRM, as is often the case with the introduction of new operational mechanisms (Tseng, 2016). Change resistance can best be dealt with by tactically incorporating the human resource component into organizations CRM system designs (Hargreaves et al., 2018).

### *Integrating CRM*

Even in organizations that have apprehended the necessity of improving relationships with customers, CRM has failed to provide the anticipated results because teams were left to work on it in isolation. According to Cummins, Peltier, and Dixon (2016), the greatest challenge lies not with appointing CRM teams, but rather in ensuring that they work jointly with organizations customer-support-professionals, end-users, senior executives, and stakeholders. This makes CRM implementation a difficult undertaking since there are many parties involved and some may not properly comprehend or embrace the requirements for successful deployment. According to Negi and Ketema (2013), core CRM teams are best developed by first taking into account particular organizational needs that would require the deployment of a specific CRM approach.



## 2.4 The Development of eCRM

The traditional CRM model was improved upon by electronic customer relationship management (eCRM) described by Dursun and Çelik (2017) as a strategy used to identify, obtain, and retain customers using electronic media and devices. Accordingly, e-CRM provides a more comprehensive and effective means for managing and coordinating customer interactions, which enhances organizational capabilities in maximizing value from interactions. eCRM signifies the use of technologies such as websites, forums, emails, and chat rooms, which are internet-based with the intention of achieving CRM objectives (Harrigan et al., 2015). This means that eCRM exemplifies strategies that are both coordinated and well-structured to attain CRM automation in processes that involve marketing, customer service, and sales enhancement. Commenting on this definition, Kim, Lee, Wang, and Mirusmonov (2015) argue that its comprehensive nature captures the need for CRM undertakings to enhance the efficiency of organizational processes while simultaneously leading to improvements in matters related to customer interactions. A different definition by Sinisalo, Karjaluoto, and Saraniemi (2015) presented eCRM as a process that provides organizations with numerous avenues through which they can augment organization-customer relations using software and hardware to produce efficient strategies for supporting CRM-related business tactics. Notably, these two definitions are similar in that they both suggest that eCRM's motivation arises from easy access to the internet while using a variety of devices. However, Ezenwoke, Daramola, and Adigun (2017) contradict the latter definition arguing that it wrongly presents eCRM as more software than process orientated.

The view of eCRM as software is apparent, given that CRM is the deployment of technologies that are web-based with the intention of interacting better with customers, understanding their changing dynamics, and ensuring ultimate customer satisfaction. Despite the argument that eCRM does not just represent software, Dewnarain, Ramkissoon, and Mavondo (2019) define eCRM as a software that keeps track of customer history in real-time via multiple conduits and thus creates and retains analytical databases in order to optimize customer relations based on the aspects of maintenance, attraction, and expansion. A similar definition focuses on eCRM's ability to facilitate collection of accurate customer information, product information, transaction history, contents information, and clickstreams (Guha, Harrigan & Soutar, 2018).

Notably, this particular definition, despite its inability to emphasize on organization-customer interactions, brings out the place of eCRM systems in providing transactional analysis based on customer's profiles and transaction histories, which are clearly left out in previous definitions (Jo & Mo, 2018). The development of eCRM arose from the need to enhance CRM practices by integrating online sales, service strategy, and promotional activities in ways that foster customer acquisition and retaining competencies (Dursun & Çelik, 2017).

As observed by Saarijärvi, Karjaluoto, & Kuusela (2015) this pressing need influenced software developers to seek enhanced programs to help businesses interact with customers through numerous communication channels. Soon, multiple software was developed that provided organizations with increased capabilities in providing customers with diverse avenues through which they could complete business according to their preferences, via multiple channels of choice (Salo, 2012). This explains why Negi and Ketema (2013) believed that eCRM development has enhanced customer loyalty levels since companies can rely on the system to create central repositories for individual customer records. Further, the portals provided under eCRM allow

employees within an organization to gain access to customer-related information. Rahimi and Gunlu (2016) asserted that this level of access has proven competitively expedient for organizations that have successfully deployed eCRM, since companies have been able to attain more information concerning their customers and their transactions in real-time.

The emergence of eCRM, as more than software, has been strongly related to the inability of traditional CRM approaches to enable organizations to define and manage customer relationships efficiently. Affirming this opinion, Kim et al (2015) argued that, although the traditional approaches were capable of generating lists of organizations' customer relationships, they were not able to provide sufficient information on the key aspects of these relationships. Thus, eCRM development was necessary in order to help provide succinct insights on key aspects underpinning customer and organizational relationships. In the opinion of Noor (2013), timely eCRM software interventions have made it possible for modern companies to define their customer relationships more efficiently, which is a major pre-requisite for developing implementation plans based on diverse customer segments.

Cummins et al. (2016) believed that traditional CRM models were more focused on processes rather than customers. Consequently, eCRM was developed in order to fill this gap by seeking to create more benefits for customers. Such an argument is validated by the fact that customer-related technologies embody specific customer benefits, which should eventually culminate in making their transactions and lives better through provision of ample support (Soltani & Navimipou, 2016). From such a perspective, eCRM emergence is strongly tied to the inability of conventional CRM approaches to benefit customers through enhanced service and support, an important reason why customers change their business to a particular organization (Azad & Ahmadi, 2015). When it comes to the support aspect, traditional CRM models were inefficient in matters related to

service. In the opinion of Kim et al (2015), eCRM came to fill this gap based on its ability to help track and measure customer-company relationship. Thus, eCRM came into existence to replace traditional CRM approaches that were unable to provide adequate information on relationship dimensions. Such an argument also suggests that eCRM emergence and development was necessary to enable organizations fine-tune their CRM programs based on customer feedback (Liu, 2015). There are, however, dimensions of traditional CRM that might prove useful if entrenched into eCRM. For instance, Maxwell and Khan (2018) opined that traditional CRM approaches were particularly useful in retaining customers because they focused more on satisfying an organization's current customer pool. In this regard eCRM represents an improvement over traditional CRM by incorporating its key elements with greater interactivity and support for customers.

## **2.5 Nature and Scope of eCRM**

The nature of eCRM is embodied in its capacity to enhance organizational competencies in matters concerning the development and maintenance of customer-organization relationships that are mutually beneficial and strategically significant (Liu, 2015). On the other hand, Kirana and Khrismayanti (2018) describe eCRM's nature based on its emphasis, which is creating long-term value without paying unnecessary attention to short-term profits. These scholarly opinions suggest that, in order to understand its scope, it is imperative to consider eCRM constituencies in terms of long-term value creation and attached benefits. By exploring these elements underpinning the nature and scope of eCRM (such as the customer, suppliers, company owners, employees, and strategic partners) managers can provide actionable information that can be used by organizations to deploy eCRM in ways that boost competitiveness and customer satisfaction (Dewnarain, Ramkissoo & Mavondo, 2019).

### *The customer*

eCRM gives priority to organizations customers because of revenue generation that would not be possible to attain without enhanced customer relationships (Azad & Ahmadi, 2015). Thus, e-CRM has been designed based on the need to enable organizations establish sustainable relationships with their customers by paving way for customers to benefit in the form of avenues, such as preferential treatment and special prices (Khan, 2012). According to Bhat and Darzi (2016), in doing so, eCRM can bring on board value enhancements due to repeat purchasing, positive word-of-mouth, minimized necessity for sampling and adding products, and improved possibilities for organizations to deploy cross and up-selling strategies.

### *Suppliers*

The scope of eCRM encompasses suppliers because they provide inputs of raw materials, components, expertise, technologies, investments, and human resources (Rodriguez & Trainor, 2016). This explains why organizations that are determined to deploy CRM systems successfully have optimized the numbers of suppliers to create sustainable and long-term relations with them. As such, eCRM's scope covers suppliers because their enhanced performance often leads to enhanced capabilities in handling customer relationships (Soltani & Navimipour, 2016). Although some scholars have suggested that supplier's efficiency boosts customer relations because of timely deliveries, others have presented a more convincing argument. For instance, Dewnarain, Ramkissoon, and Mavondo (2019) believe that it is not timely deliveries that make suppliers competence vital for eCRM deployment success, but rather the fact that they provide management-system alignment through sharing of customer information.

### *Company owners*

One of the reasons why eCRM's scope covers company owners is because some organizations may remain under sole proprietors during their lifespan (Dewnarain et al, 2019). On the other hand, others may start out as sole proprietorship endeavors but end-up going public where eCRM can act as an effective conduit of information about the company of interest to them. According to Maxwell and Khan (2018), whichever category, eCRM has been deemed expedient, given the paramount necessity for organizational management to establish sustainable and productive relations with company owners and to continually satisfy them through value creation.

### *Employees*

As observed by Zeynep Ata and Toker (2012), employees are principal to eCRM practitioners often considered as organizations 'internal customers' they are an important eCRM constituency. Nonetheless, some have held the opinion that customers are the crucial constituents, however this view is opposed by an observation by Bhat and Darzi (2016) that over 57% of eCRM deployment failures stemmed from the inability or ignorance of organizations in realizing that employees are the only people that interact with customers. This suggests that satisfied employees will be better placed to ensure the success of eCRM, since they interact directly with customers.

### *Strategic partners*

eCRM supports organizations in strategic alliances. In an attempt to explain this, Cummins, Peltier, and Dixon (2016) opine that such partners, by sharing complementary points of strength in the form of technological expertise, supplier networks, customer bases, market reach, and customer information, enhance the chances of eCRM success. Moreover, Aziza, Oubrich, and Sjøilen(2015)

observed that partnering with other companies provides support for eCRM systems to enhance value delivery and creation via improved efficacy, product-development-sharing, resource sharing, along with distribution and promotion costs sharing.

## **2.6 Benefits of eCRM over Traditional CRM**

### *Attractive features*

According to Soltani et al (2018), one of the greatest benefits attached to eCRM in comparison to traditional CRM lies in the attractiveness of the features present under eCRM. For instance, conventional CRM approaches do not provide customers with features such as the self-service-browser-based-windows that allows customers to check and confirm all the information that relates to their purchases and products of interest. In the opinion of Kirana and Khrismayanti (2018), such features are not only attractive to customers, but provide them with the much-desired time and place freedom. Traditional CRM does not encompass such capabilities, which makes it difficult for it to produce the levels of customer value required for success in increasingly dynamic and competitive environments. Thus, eCRM is capable of generating value-creation opportunities conventional CRM approaches are unable to generate. In explaining this advantage, Ezenwoke, et al (2017) opine that eCRM has been able to generate unprecedented customer loyalty levels, since customers are no longer limited when it comes to interacting with organizations. Such an explanation is validated by the fact that traditional CRM approaches placed limits on customers because they could only contact companies in the course of customary working hours.

### *Technological efficiencies*

eCRM is more advantageous compared to CRM based on the technological criteria of system interface, customer contact, system overhead (customer computers), system focus, customization,

and information personalization, along with system modification and maintenance (Wali & Nwokah, 2016). The superiority of eCRM over traditional CRM based on these technological criteria is summarized in table 1 below.

Table 1: eCRM v Traditional CRM

| Criterion                                     | Traditional CRM   | eCRM   |
|---|---|--|
| Customer contact                              | Customer contact is established using traditional means such as fax and telephone (Cummins et al, 2016)   | Contact establishment adds avenues such as PDA technologies, wireless mobile, and e-mail to telephone (Phung, 2016).   |
| Customization and information personalization | It is not possible to establish personalized views for the dissimilar target audience and individual customization can only be attained through programmed changes (Wali & Nwokah, 2016). | Exceedingly individualized, dynamic, and personalized views depending on previous purchases and current/previous preferences (Cummins, Peltier & Dixon, 2016). Each audience personally customizes views (Greve & Schlüschen, 2018). |
| System interface                              | Operates through back-end application and ERP systems (Lillard & Al-Suqri, 2019).   | Particularly tailored for customer facing application (Wali & Nwokah, 2016). This interfaces with the back-end application as is the case with traditional CRM via ERP (Marino & Lo Presti, 2018).                                   |
| System overhead (customer- computers)         | Web-enabled-applications needed Pc customers in order to download diverse applications (Harrigan et al., 2015)  | The browser serves as the customer's access portal (Lillard & Al-Suqri, 2019)  |
| System modification and Maintenance           | Implementation takes longer durations. Costly management since systems have to be located in different places and numerous servers  | Minimal time as well as costs. This is because both system deployments and expansions can be undertaken on a single server (Harrigan et al., 2015)   |
| System focus                                  | Entire systems are designed based on job specifications and products (Marino & Lo Presti, 2018).  | Systems are specifically designed with customer needs in mind  |

The benefits of eCRM over traditional CRM as highlighted in table 1 resulted in greater popularity of eCRM and more research and development being done to improve its systems, functionality, and effectiveness. As internet access became more prevalent and digital devices embraced by more users, eCRM began to morph into mCRM (mobile CRM) with new applications, uses and benefits to a range of users including consumers, producers, and related stakeholders.

## 2.7 The Development of mCRM

Technological improvements led to mobile customer relationship management (mCRM) which according to Dursun and Çelik (2017) relies on applications that are designed for execution via mobile phone, tablets, laptops, and an assortment of internet-enabled devices. Dutu and Halmajan



(2011) define mCRM as organizational initiatives that improve customer experience when using mobile digital devices through augmentation that adds value without customer cost. Managing relationships with customers can be seen as a technological process where mCRM enhances experiences through reduced costs and increased efficiency of processing information (Abdullateef et al., 2010). Another perspective is that customer relationship management is a relationship process where mCRM improves understanding and satisfaction of customer preferences (Dursun and Çelik, 2017).

Thus, mCRM can be considered as transcending technology to establish and develop beneficial relationships among organizations and customers, regardless of location.

In this sense, it is innovative in that it can be an influential relationship building tool as it uses the latest technology such a RFID, Bluetooth, Near Field Payment Systems, QR codes through the medium of a range of mobile digital devices (Abdullateef et al., 2010). The pursuit of mCRM is increasingly appealing to organizations where technology diffusion has resulted in largely homogenized markets with products and services that have become are similar (Beldi et al., 2010). This is particularly true in the mobile phone sector where features and benefits have homogenized across a range of brands. Accordingly, organizations seeking to differentiate are embracing mCRM where value added is difficult to replicate as mobile phones are becoming more replicable (Abdullateef et al., 2010).

The innovative nature of mCRM is found in the various different functions and features of the system known as external processes that are the customer facing benefits that enhance the product and service experience (Kim and Hyun, 2011). Notably, this particular improvement emanated from the need for organizations to secure customer satisfaction and attain better market share in light of limited product technology-related competition increments. For example, merging social

media management and mCRM has become an asset for companies in meeting the evolving needs of customers (Marino & Lo Presti, 2018). This is because a merger of these two technologies with a mCRM strategy, creates a model for more effective interaction, as it brings new benefits over traditional and eCRM (John, 2018). mCRM emergence means that managers are capturing a more segmented contacts database which allows them to develop individualized marketing campaigns and monitor the return. According to Soltani et al (2018), new market trends are scrutinized carefully by companies, especially trends relating to mobility, which explains mCRM emergence and rapid development. However, many companies are still using older managerial practices. Mortezaei et al (2018) pointed out that this is about to change and organizations will soon start embracing mCRM due to its numerous advantages.

### **Early mCRM**

When mCRM was initially implemented, it was achieved through various processes enabled by a mobile platform that was largely used to automate messages to customers. It was implemented “with the intent of driving a specific behavior in the short term” (Andrews et al., 2016, p.15). The intended behavior was to increase demand, engendered by messages, offers and advertising via mCRM. In 2018, mobile advertising in the US reached almost US\$40 billion, surpassing TV advertising and accounting for almost 70% of all digital advertising spending (Narang & Shankar, 2019). The platform became popular because “mobile technologies allow marketers to target customers with promotions based on their specific location, time, and context” (Narang & Shankar, 2019, p.100). Further, the portability and personal nature of mobile devices render them suitable for targeted promotional messages (Danaher et al; 2015; Hui et al, 2013). Accordingly, mCRM was used as an informational, advertising, and promotional tool as it could deliver the “right

individualized incentive for the right product in the right store in the right place at the right time” (Ghose, 2017, p.11).

The most common mCRM processes that were used, when the medium was nascent, were; push notifications, in-app messaging, SMS/MMS, news feeds and email (Erkan, 2018). Push notifications are messages sent or “pushed” without a particular request from a customer but with opt-in permission having been obtained in advance. These notifications can be used to provide updates on products, services, maintenance, events, promotions, account information and other useful information. The advantage of this process is that direct messages can be sent to targeted customers with real-time updates, however, the limitation is that only registered customers can be contacted (Sinisalo & Karjaluo, 2007). In-app messaging was another popular process in the early stages of in CRM where messages were sent to users while they were directly engaged in the use of a mobile application. Because in app messages are part of the mobile application experience, opt in is not required to send welcome messages for new users, promotional messages, announcements, and e-coupons. Although in-app messages can be distracting for users, research indicates that they receive eight times the response rate of push notifications (Solanki, 2017). SMS/MMS became popular mCRM processes where SMS is an acronym for short message service and MMS means multimedia messages.

While SMS includes text-based messages, MMS adds audio-visual content such as images, recordings, and video. SMS/MMS can be used to announce new products and services, special offers, appointment reminders and provide alerts for upcoming events. SMS/MMS have a higher impact than push notifications and in-app messages accounting for 83% of all mobile messaging revenues in 2013 (ABI Research, 2009). However, people can easily unsubscribe from these messages and block incoming messages that can prevent communication from a company being

received. News feeds, or more specifically, RSS (Really Simple Syndication) is an “XML-based format document for sharing and publishing frequently updated Web news” (Liu et al., 2009 p.419). Newsfeeds deliver updates on a wide variety of categories selected by mobile customers including news stories, science, education, sports, travel, hobbies, and business topics. The advantage of newsfeeds is that people select their interest, subscribe, and receive targeted communication. The disadvantage is that relative to the cost of generating content, exposure rates are relatively low as consumers have an increasing choice of media to consume. Email messaging is company communication with customers via email which became more popular as mobile devices screen size increased, and it was easier to read and respond to messages. By 2015, more emails were opened on mobile devices compared to desktops (Custom Analytics, 2017). However, the response rate tends to be lower than other mCRM processes that are perceived as easier and faster for customers (Johnson et al., 2013).

### **mCRM at Samsung UAE**

Samsung introduced mCRM to provide basic customer support services for owners of its mobile handsets. The system was updated in 2020 where customers could access support ‘on-the-go’ through a dedicated Samsung micro-site offering largely automated support with a toll-free number for higher level support. The system was also used for push notifications to announce the launch of new models, special offers, and promotions. In addition, an RSS newsfeed provided summaries of global events that could be accessed within the app or via a banner that could appear on the front screen, according to the choice of the customer. The app was provided with all new smart phones and also could be downloaded and installed on new phones via the Samsung website or Google Play. Although limited in design and functionality, there was an increase in uptake and usage of the app. Moreover, there was positive feedback from customers with just under 50% subscribing and

using the application by 2021. Management at Samsung began to focus attention on the potentiality of mCRM as a strategic tool that could be used to attract and retain more customers. Given the fact that smart phone technology (in terms of hardware) has reached a peak where improvements are incremental, mCRM became considered as an area that could be leveraged to differentiate from rivals without the need for large-scale R & D expenditure associated with mobile phones. As mCRM technology improved, it was realized that it could be an untapped avenue to fulfill the emerging needs of customers, seeking more support and services in a mobile format. However, management lacked a framework to incorporate mCRM into strategy, particularly in terms of investment in resources, infrastructure, systems and personnel. It was not known if mCRM should be developed as a strategic, tactical, or operational tool. Thus, the issue of whether mCRM would be worthwhile and to what extent from a company and customer perspective became the focus of this research.

### **Innovative mCRM**

Although early mCRM had initial success, the adoption rate “fell short of expectations” with “user adoption below 49 per cent” (Rodriguez and Trainor, 2016, p.68). Alnawas & Aburub (2017) concluded that to offer better customer interaction, manufacturers needed to shift focus away from the characteristics and features of apps. To a focus on customer experiences with apps. Building on this point, Alolayan & Al-Kaabi (2020) concluded that “manufacturers should create smart and up-to-date apps. That stimulate, lighten the mood, hold attention, and promote user values” (p.44). Early mCRM was, in essence, one-way advertising and promotion, a monologue rather than a dialogue with customers. This was less of an issue in the early phases of mCRM because consumers were not receiving as many messages and alerts as when mobile technology and applications developed. Also they had lower expectations from such a system which changed as

their options increased over time and they sought more interaction with companies.

Mobile applications became increasingly popular to the point where the “average smartphone user spent 82% of his/her time on mobile apps, and the remaining time between calling, texting, and e-mailing” (Alolayan and Al-Kaabi, 2020, p.43). As the “mobile cyberspace” began to fill up and become more cluttered, the early mCRM processes were lacking and needed to be upgraded towards a more consumer-centric model. Moreover, around the same time, mobile handset manufacturers had limited ability to innovate in hardware because technological progress slowed and further improvements would be incremental. Thus, manufacturers realized that there was more scope for innovating in software (mCRM processes) than in hardware (mobile phones) that would take more time for innovation to be realized. A new orientation emerged in developing mCRM processes that would enhance the customer experience. The goal was to enhance relationships with customers via improved software (mCRM) that would lead to increased demand for hardware because of better satisfaction with the former. Advancements in mobile technologies provided a platform for managers “to have a customer-centric organization, rather than the old product-focused organization” (Beshir et al., 2020, p.123). Specifically, “the convergence of social, mobile and cloud technologies enabled organizations to access customer information anytime, anywhere” (Rodriguez and Trainor, 2016, p.67). The implementation of mCRM evolved to provide customer-facing benefits through a range of innovative processes.

Unlike early CRM, there is no dominating view of innovative mCRM processes and no framework that is generally agreed upon as to its constituent elements. This is largely because it is an evolving concept and practice with emerging and diverse interpretations in the literature and in practice. For example, San-Martín et al.(2016) identified technological competence, innovativeness, and customer information management as key components of e mCRM. Sinisalo et al. (2007)

highlighted the importance of technological infrastructure and marketing capabilities as important elements of mCRM. Hsu & Lin (2008) concluded that “convenience, flexibility and multimediality” (p.233) are essential components of a technology enabled CRM system. Verma and Verma (2013) considered personalization and interactivity as key elements of mCRM. Negahban et al. (2016) emphasized “customer data quality, system quality, service quality” as important in providing the important mCRM processes of personalization, convenience, and security. Liang et al. (2010) emphasized convenience, security, personalization, and integration across different customer touch points electronic (email, websites, social media) and manual (sales calls, direct mail, and catalogs). Rodriguez & Boyer (2020) identified collaboration and sales process capabilities as key elements of mCRM. Nigatu et al. (2021) explained that interactivity and responsiveness are key elements of mCRM. Throughout the literature, it is evident that different researchers emphasize different aspects of mCRM, however, certain elements are more commonly highlighted and discussed and these become the key innovative process emerging from the literature.

A review of the literature reveals that the most commonly identified mCRM innovative processes are; customization (Anyebe & Zubairu, 2019; Beshir et al., 2020; Bilgihan et al., 2016; Camponovo et al., 2005; Chen et al., 2017; Mastorakis et al., 2015; Sinisalo et al., 2015), interactivity (Chen; 2012; Mastorakis et al., 2015; Lee et al; 2015; Negahban et al., 2016; Rayed, 2019; Sinisalo et al., 2007), convenience (Awasthi & Sangle, 2013; Camponovo & Pigneur, 2005; Chikweche & Fletcher, 2013; Kim & Hyun, 2011; Rodriguez & Trainor, 2016; Singh & Chiliya, 2014; Sinisalo et al., 2015), service (Grandhi & Chugh; 2012; Kim, Lee et al., 2015; Łukowski, 2017; Negahban et al., 2016; Quadros, 2022; Ranjan, et al., 2009), security (Doherty, 2021; Lillard & Al-Suqri, 2019; Ranjan & Bhatnagar, 2010; Strzelecki & Rizun, 2022; Varghese, 2022)

Customization is the tailoring of a product or service to the expectations of customers that is enhanced through mCRM as it provides a means for collecting, storing, and using data used in tailoring products and services to individualize needs (Anyebe & Zubairu, 2019). “The main principle is to develop and sustain personal connections with each client, increasing common advantage for both parties via customized, collaborative, and value-added advertising-based facilities” (Mastorakis et al., 2015, p.3). Individualized dashboards, personalized reports and real time one-to-one support can all be achieved through mCRM to “offer tailored services through mobile devices” (Beshir et al., 2020, p 122). By acquiring “better customer knowledge and, accordingly, offer customers a more personal service” (Sinisalo et al., 2015 p.17), customization helps shape critical aspects of businesses by ensuring the quality is designed and delivered from the point of view of the customer. The “characteristics of the mobile medium does confer it highly valuable and unique peculiarities which can be exploited as a complement to other channels to create and manage personalized customer relationships” (Camponovo et al., 2005, p.1). Chen et al (2017) emphasized that through mCRM, “companies can tailor messages and customize product and service bundles” (p.12) in a more efficient way compared to traditional CRM methods. Bilgihan et al. (2016) formed the same conclusion when examining customer experiences in online shopping as “personalization is an important factor for delivering positive user experiences in online environments”(p.110). Consequently, customization encourages consumers to develop positive perceptions towards business as it is a demonstration of the sensitivity of the business towards the interests and aspirations of customers.

Interactivity is the level of two-way communications between the business and its customer segments that is enhanced in mCRM (Mastorakis et al., 2015).The mobile platform “provides an interactive channel that enables organizations to communicate various types of information and



provide variety of mobile services to their customers” (Negahban et al., 2016, p.747). In this regard, customers can obtain information from businesses relating to their interests and expectations that must be reflected through the characteristics of the products or services on offer. “Mobile networks are well suited to enhance traditional CRM systems, offering interactivity that allows a company to develop intimate relationships with customers” (Mastorakis et al., 2015, p.3). Traditional and eCRM are enhanced by using mCRM as customers can collect information, make inquiries, and receive feedback on-the go through a range of digital devices thus improving customer interactivity. Further, the process of continuous interaction enhances the envisaged value proposition of the business as it develops a better understanding of the expectations of customers that can be responded to enhance satisfaction (Chen, 2012). The importance of interactivity was noted by Lee et al (2015) particularly as it can enhance customer experiences with mobile services. The early mCRM processes were largely non-inclusive as they focused on the needs of the organization (increased demand) rather than customers. In contrast, interactivity includes the customer in the value creation process and thus provides a sense of ownership in an organization in terms of having an influence on outcomes-which can lead to increased demand (Rayed, 2019).

Convenience where the use of a product or service is simplified to become intuitive and user-friendly in a manner that improves accessibility for customers (Chikweche & Fletcher, 2013). Particularly, in recent years, the trend has been towards consumers completing more transactions online. The application of mCRM programs enhances customer convenience as processes become automated thereby improving service efficiency (Kim & Hyun, 2011). Such convenience is evident in the development of mobile applications that allow people to order and pay for products and services in a mobile medium (Awasthi & Sangle, 2013). Another important convenience factor that can be provided through various mCRM programs is technical support, ordering products,

arranging insurance, and organizing delivery (Rodriguez & Trainor, 2016). The importance of mCRM providing such convenience was also noted by Singh & Chilya (2014) who explained that it is particularly useful for people living in rural areas without easy access to physical outlets. Sinisalo et al. (2015) confirmed the convenience factor as an important mCRM function as “customers can more easily access detailed information based on specific needs” (p.8). Camponovo & Pigneur (2005) found that convenience was a key factor in mCRM as “wireless networks allow applications to use a set of unique advantages of mobile communications” (p.10) based on the fact that they can access information and support at their own convenience.

Service is another innovative process of mCRM and one of the key processes that adds value to the customer experience. Kim et al.(2015) noted that with advances in technology, an increasingly wide range of services can be provided through a mobile platform, such as; diagnostics, software repairs, account changes and advisory information, while the latter provides videos, manuals, and advice on troubleshooting. Customers have a single point-of- reference when in need of support as mCRM can be accessed from any location at the convenience of different users (Ranjan, et al., 2009). Assisted service and self-service are enhanced by mCRM as the former helps solve customer problems on-the-go and in different locations using real time tools (Kim, Lee et al., 2015). Research indicates that both organizations and customers benefit from the service function of mCRM as it can “improve the service quality offered by employees, which results in increased profits for the organization” (Negahban et al., 2016, p.750). The fact that today’s customers do not need to go to a physical store to receive various mobile services means that they have come to expect a relatively fast turnaround. In a recent survey it was found that “90% of customers rated quick response as important or very important when they have a customer service query” (Quadros, 2022). Organizations are augmenting their technological infrastructure to provide innovative

processes such as chatbots and virtual assistants in an effort to better satisfy the demand for 24/7/365 service increasingly expected by today's customers (Łukowski, 2017). Service staff can respond more quickly to customer requests as mCRM centralizes and updates customer information "ubiquitously thus offering faster and improved services" (p.388).

Finally, security is an area where innovative mCRM processes have gained importance in a cyber-world where "50% of eCommerce store owners are lamenting that the attacks are becoming severe" (Varghese, 2022). Customers perceive security as a "feeling that their personal data, are protected, and will not be obtained by third parties" (Strzelecki & Rizun, 2022, p.2) where "security, design, and content factors influence consumers' trust in mobile commerce websites (p.3). Research indicates that "62% of people are concerned about fraud they feel it is an inevitable risk of online shopping" and "these fears have caused 58% to not feel comfortable entering their financial data online (HNS,2022). Security can be enjoyed by customers through the application of mCRM where data protection becomes enhanced through automated processes tailored to the needs of individuals or groups of customers (Ranjan & Bhatnagar, 2010). Lillard & Al-Suqri (2019) concluded that an effective mCRM system required adequate security protect customer's information from intrusions and fraudulent activities. The authors noted that innovative technology processes are being incorporated into mCRM to enhance security e.g. content delivery networks (CDN), secure server layer (SSL) certification, enhanced firewalls, WAF solutions, multi-factor authentication (MFA) and (PCI-DSS) payment card industry data security. Innovative mCRM processes in security have enabled the expansion of "the C-I-A triad of confidentiality, integrity, and availability to the specific requirements of new technologies and business models or services" (Doherty, 2021, p.41). Information exchanged in an online environment has heightened levels of privacy (confidentiality), accuracy (integrity), and reliability (availability).

## 2.8 The Global Telecoms Market

### *Market structure and development*

Telecommunications, as defined by Krstevski & Mancheski (2017), is the transmittance of words, signals, images, sounds, signs, and writings via optical systems, radio, wire, and other electromagnetic avenues. The telecommunications sector consists of organizations that deploy these communication platforms to make it possible for individuals and companies to connect across the globe. Companies involved in this particular sector have established infrastructures that facilitate communication through phones and other electronic gadgets via airwaves and cables (Czarnecki & Dietze, 2017). Several years back, the sector was made up of large operators that provided services at national and regional levels. However, the influences of innovation and deregulation have led to the emergence of an assortment of new competitors as well as the privatization of government monopolies (Madichie et al, 2017). Notably, the telecommunication sector started in the early 1830's, when telegraph was invented as the world's first mechanical device for communication (Watts, 2012). This particular invention shortened communication, which used to take days to a matter of hours. Subsequent inventions like the telephone, computers, television, and radio caused the industry to broaden rapidly (Hudson, 2013). However, mobile device inventions and the internet have been deemed as the most influential forces in as far as the shaping of the telecommunications sector is concerned. Bearing in mind that mCRM operations are founded upon the communications platforms provided by this sector, it is important to consider its scope and growth.

The global telecoms market is characterized by big and small companies that can produce enough

cash flow, which is necessary for absorbing the costs associated with network expansion (Noh et al., 2016). According to Ai & Wu (2016), big companies have the upper hand in this type of business because of their extensive networks that make it possible for them to secure customers in increasing numbers. On the other hand, the smaller players have to rely on interconnections from the big companies and are forced to pay for these interconnections to achieve their business objectives. There are also some very small operators in this market who are greatly disadvantaged since they have to keep pace with costs associated with the depreciation of operating equipment (Stone, 2015). Some of the big players in this market include Verizon (VZ), China Mobile Ltd., and the Vodaphone Group (VOD) (Roche & Bakis, 2018).

Small players comprise of Alaska Communications Systems Group (ALSK), Cincinnati Bell (CBB), Frontier Communications (FTR) (Rahman et al., 2015), and Vonage (VG). It is also important to note that telecoms markets are often shielded from competition because of government regulation. Nonetheless, competition has been on the increase and the market is almost reaching saturation point. In light of such information, it would be expedient for this research to take into account the abilities of telecommunications companies to facilitate higher levels of customer satisfaction and possibly help organizations to attain better competitive edges through mCRM systems and processes.

### *Market size and growth*

In 2021, the global telecommunication market reached a value of USD \$4.5 trillion, representing almost 5% of world GDP and this figure is expected to reach almost \$5 trillion by 2025 through improved infrastructure and uptake of mobile services (GSMA, 2022) The year 2021 was also

characterized by rapid recovery from recession caused by the global pandemic with a positive uplift on the telecom sector. Growth is fastest in the Asia-Pacific region followed by the Americas, the Middle East and Africa and Europe (IDC, 2022). All segments of the telecom sector have experienced higher-than-expected growth except for Pay TV which was at a record high during the pandemic. According to Golding & Tennant (2017), the internet has contributed immensely towards market growth because it resulted in unprecedented access as well as demand for various communication channels. Although this is quite the case, other scholars have opined that growth has been generated by other sources apart from the technological aspect. For instance, Pehrsson (2013) asserted that market expansion has stemmed from vast enhancements in the variety and quality of digital devices that have encouraged more segments to use telecom services. As per Shafei & Tabaa (2016), promising opportunities for growth have arisen across information and communications technology (ICT). This would explain why Grubestic & Mack (2015) believed that organizations within this sector are adopting cloud-services more than has been the case during any other age in human history. Therefore, operators around the globe are already positioning themselves so that they will be able to provide new-use-cases based on the available digital domains. However, profitability issues still exert pressure on telecoms organizations due to declines in ROI, which arise from the large investment in capital intensity that is required as the companies pursue new technologies (Giovanis et al., 2016).

### *Market trends*

Immense changes have taken place within the telecoms sector that have caused notable change in the competitive landscapes as influenced by customer needs. According to Martin (2017), the seismic alterations in consumption patterns explain why operators have been forced to deal with spectrum costs that have added to burdens associated with capital investment. Notably,

consumption alterations can be explained by the unprecedented increase in smartphone usage, which has made the devices the most commonly used communication and computing platform (Sapolsky et al., 2018). Affirming this perspective, an OFCOM report (2022) noted that the average amount of data per UK mobile user increased to 4.5 GB per month 2021, an almost 30% increase on the previous year's figure. The same trend is reflected at the global level as subscriptions to mobile services have increased to 70% of the world's population at the end of 2021 (GSMA, 2022).

In an attempt to explain the trends, the Pew Research Center concludes that the uptake is due to a range of factors including expanding populations, a growing middle-class, improved technology and affordability of smart phones along with an increasingly mobile workforce (2020). These changes also explain why operators across the globe have focused on diversification while simultaneously investing heavily in faster network competences. It is estimated that mobile operators will need to invest a total of \$600 billion worldwide from 2022 to 2025 to improve infrastructure to deliver better and faster services, particularly 5G, for adequate support of streaming, social media, and data usage (GSMA, 2022).

### *Importance of customer experience*

Despite increased competition and unprecedented changes in consumption, organizations operating in the telecoms sector have the opportunity to enhance competitiveness through efficient management of customer experiences. Sassen (2016) recorded that companies in the telecoms sector have focused more on customer acquisition and acquisition of faster networks, and have taken lightly the need to manage the experiences of their customers. This could be one of the reasons why competitors have been unable to capture market share from leaders such as Verizon and Vodafone group who have invested in policies, procedures, and systems to enhance the

customer experience (Osagie, 2017). Accordingly, companies have an opportunity to improve performance and gain share by making CEM a priority upon which strategic decisions are made. However, for companies to realize such an achievement they will need to focus on improving aspects that support the customer experience such as network quality, and service efficiency, and agility (Koi-Akrofi, 2017). Although these are not the only requirements for seizing the available opportunity, companies need to realize that CEM requires the deployment of customer-centric strategies. Supporting this point of view, McLaren (2017) argued that the markers of the current and prospective telecoms market are likely to serve as steppingstones for operators that will focus their strategies towards anticipating customer's future needs and keeping their customers happy. To this end mCRM presents an opportunity for companies to enhance the customer experience leading to greater satisfaction as a means of promoting success.

### *Market Challenges Ahead*

The mobile handset market is an oligopoly where a few large companies dominate the market. In such a structure, there exist different entities offering for sale phones that, in addition to being substitutes, are differentiated to attract customers for purchase and repurchase (Fleisher, 2020). Despite a recent slowdown in demand, the global smartphone market is projected to increase from \$484bn in 2021 to \$792 by 2029 (Market Watch, 2022). While brands such as Samsung and Apple dominate the market, manufacturers such as Huawei, Xiaomi, HTC, Oppo, Vivo, and ZTE, are offering phones, similar, and in many cases, superior, in functionality, performance and durability (IDC, 2018). These incumbents are committing large funds to research and development, channel reach, and marketing to build brand appeal and have thus emerged as a growing and significant presence in the global smartphone market. Although lacking the global recognition and brand appeal of established and leading market players, emerging competitors are posing a considerable



threat (Abu-Nasr et al., 2018). In response, market leaders are seeking ways to maintain competitive advantage and are investing in new technologies such as cloud-based mobile applications, artificial intelligence, foldable devices, virtual reality, and seamless voice control (Hiley, 2022). As voice recognition improves, virtual assistants will play a bigger role in navigating functions and applications based on user instructions and patterns (Geronimo, 2018). However, as technology becomes more replicable by rivals, and consumers become more accepting of emerging brands, market leaders are seeking ways to differentiate beyond technology and branding.

Samsung has focused attention on developing better handsets with improved characteristics in memory, screen quality, processing speed, battery life and image capture. However, the next era of smartphone competition will reside not just in hardware technology, but in innovative services and customer interactions that provide richer experiences for mobile users (Al-Gasawneh, 2022). Accordingly, the impending convergence of smartphone technology is moving the search for advantage towards ecosystems and platforms for more customized and personalized customer service (Ameen & Willis, 2018). People have become dependent on smartphones for work and personal use to the point where they are the most used consumer digital device today, reflecting a modern lifestyle. Providers are now seeking to innovate towards satisfying evolving consumer needs and preferences where technology and branding are more replicable, and as such, services where effective provision can be a significant opportunity for competitive advantage.

To this end, mCRM has emerged in an effort to better satisfy customers (Ameen & Willis, 2018). mCRM improves the quality of interactions due to convenience and efficiency that are vital in nurturing positive relationships between a business and its customer segments (Alolayan & Al-Kaabi, 2020). Further, it can incorporate new technologies that can add value to the customer experience (Hiley, 2022). The relevance of mCRM has been intensified by the increased

homogeneity in markets because of competition arising from globalization (IDC, 2018). Such homogeneity in product and service offerings is more pronounced in the mobile phone sector where most of the product and service offerings have become similar. Through the use of mCRM, it is possible for businesses to differentiate as they can collect diverse forms of data that can be used to compute analytics to reveal consumer trends and dynamics (Gani & Maung, 2020). Moreover, the innovative customer facing processes of mCRM provide a mechanism for adding value, an important factor as there is limited scope for this in mobile handsets as current technology limits innovation. Instead of a singular focus on hardware improvements, mobile handset manufacturer are considering investment in mCRM as a relative low cost means of generating customer satisfaction where other avenues remain constrained.

## **2.9 Customer Satisfaction**

### *The Meaning of Customer Satisfaction*

In order to develop a comprehensive understanding of consumer satisfaction, it is imperative to examine the diverse and wide-ranging definitions of ‘satisfaction’. One interpretation is “emancipation from the discomfort that results in positive attitudes as relates to an individual’s usage of a particular product/service” (Kurosu, 2019, p. 160). However, this definition is overly broad and was improved upon by Hanif, Hafeez & Riaz (2010, p. 45) as an “assessment of perceived differences between anticipated outcomes and the actual outcomes”. This definition is more precise in that it specifies outcome achievement as a way of measuring satisfaction. Satisfaction as a measure of sacrifice and reward was explained by Awad (2012) and Bello (2012, p. 28) who defined the concept as “the state of an individual being sufficiently rewarded for sacrifices made towards a particular end”. Evangelidis & Van Osselaer (2018, p. 6) expressed a

similar meaning by defining satisfaction as “a psychological concept involving pleasures and feelings that come from the attainment of one’s expectations”. Common to most definitions of satisfaction is that it is a consumer perception of the costs and benefits involved in the consumption of a product or service based on expectations and/or realization (Schüller & Pekárek, 2018). When consumers perceive that expectations/performance of products or services are met, a state of satisfaction occurs. When consumers perceive that expectations/performance of products or services are not met, a state of dissatisfaction occurs. If products or services exceed expectations/performance, a state of delight occurs. Creating satisfied customers is important as it brings many benefits for organizations.

### *The Benefits of Customer Satisfaction*

Business benefits associated with satisfaction emanate from the fact that business entities are concerned with customer satisfaction, as it is fundamental to higher profits (Kurosu, 2019). According to Saeidi et al (2015), satisfaction is essential to modern businesses because competition escalations require business entities to focus on enhancing the satisfaction of customers to motivate loyalty. Such an argument strongly implies that the importance of satisfaction in as far as serves as the best indicator when it comes to understanding consumers and their intentions (Kurosu, 2019). Notably, without acquiring such information, customer loyalty enhancement efforts would be more difficult. In support of this opinion, Nyadzayo and Khajehzadeh (2016) asserted that data on customer fulfillment is most prominent when it comes to pointers of market perceptions. This renders the business benefits of satisfaction two-fold. In modern organizations, collection, scrutiny, and distribution of such data provide accurate understanding about the significance of ensuring that customers have positive experiences during exchanges and with

company's products and services (Stathopoulou & Balabanis, 2016). The second dimension when it comes to the necessity of satisfaction in business is attached to the usefulness of data on satisfaction in avoiding cases where organizations realize satisfaction ramifications after extreme issues arise. Such a perspective is likely to have stemmed from the discovery by Alnawas and Aburub (2016) that although sales can be helpful in indicating performance, satisfaction is more reliable since it aids in predicting future purchase tendencies, paving way for enhanced efficiencies in matters related to customer retention.

By evaluating the influences of mCRM systems founded upon the need to predict customer behaviours, companies can investigate the impacts of such systems on organizations' customer satisfaction. In addition, satisfaction can serve as a formidable platform upon which organizations can sharpen their competitiveness. Mainly, this is because, when customers are satisfied, they often recommend particular products/services with which they have interacted to peers, family, friends, and relatives through what Magatef and Tomalieh (2015) referred to as word of mouth (WOM). From such a perspective, satisfaction holds a place of pre-eminence among other organizational goals since it serves as a reliable and powerful promotional tool. Moreover, research suggests that understanding the benefits of satisfied customers provides a formidable platform for improving business strategy through a more effective allocation of company resources and priorities (Evangelidis & Van Osselaer, 2018). The benefits commonly associated with satisfied customers are summarized in table 2 below.

Table 2: Benefits of satisfied customers

| Benefits of satisfied customers | Discussion   |
|---------------------------------|--|
| 1. Enhanced customer loyalty    | Satisfied customers patronize a company longer (Zablah et al., 2016). This loyalty has significant influences on profitability in the course of time |

|  |  |
|--|--|
| <p>2. Improved average purchases</p>     | <p>Satisfied customers mean that firms are able to attract more customer purchases within a specific product category (Alnawas &amp; Aburub, 2016). Further, satisfied customers increase purchase quantities in the course of time</p>                  |
| <p>3. Reduced promotion expenditures</p> | <p>Customer loyalty emanating from higher satisfaction levels precedes flow of new customers through referrals (Evangelidis &amp; Van Osselaer, 2018). This reduces expenditures meant to generate customers through diverse promotional activities.</p> |
| <p>4. Word-of mouth (WOM) increments</p> | <p>According to Hill and Alexander (2017), more than 53% of satisfied customers culminate in recommending brands, firms, and products to their friends, relatives, peers, and families via social media interactions</p>                                 |

|  |  |
|--|--|
| 5. Sales revenues stability                            | In the opinion of Saeidi et al (2015), this benefit draws from customer loyalty enhancements and improved successes of new products.   |
| 6. Enhancements in product and services recovery       | Kaura et al (2015) believed that service recovery connotes the ability of service firms to fix problems and customer complaints while seeking to enhance satisfaction As such, this is a benefit is easier to attain unto because satisfied customers are better placed to approach companies for solutions.   |
| 7. Improved new products and extensions success        | Firms that successfully pursue customer satisfaction have greater chances of reaping benefits attached to new product launches. This is because they can instigate the launches by targeting their existing customer base, which enhances success possibilities since existing customers often anticipate for organizations to come up with new products (Alnawas & Aburub, 2016). |
| 8. Reduced price-sensitivity                           | Studies have indicated that satisfied customers place value on their cumulative experiences as well as a company's products/services (Yang et al., 2017). Consequently, they have fewer concerns when it comes to price and seldom use the pricing aspect during their satisfaction judgments.   |
| 9. Stronger and resilient staff-customer relationships | This benefit is often enjoyed by service firms since they need to embody tactics for sturdy staff-customer relationships into their promotional strategies. Undeniably, these relationships gain strength, stability, and productivity in organizations where employees deal with satisfied customers (Alnawas & Aburub, 2016).  |
| 10. A stout competitive-switching barrier              | An organization's existing customer pool becomes less interested in pursuing competitive offers  |

## **Customer Satisfaction as Competitive Advantage**

### *Organizational Perspective of Competitive Advantage*

Competitive advantage is often considered from an organizational perspective and this is reflected in the various definitions of the concept. Ansoff (1965) was the first to develop and popularize the notion of competitive advantage as “the individual and superior characteristics of an organization compared to others in the same market” (p. 51). According to this interpretation, competitive advantage is associated with organizational superiority compared to rivals. The same idea is expressed by Wieland & Wallenburg (2013, p. 301) who defined competitive advantage as “the superior performance of an organization compared to its competitors within the same business industry”. Prajogo et al. (2016, p. 224) also emphasized organizational superiority as they defined competitive advantage as “superior company performance as a result of its ability to predict external changes, control costs and develop its structures” (p. 224). The organizational perspective of competitive advantage emphasizes the ability of companies to produce products and services better than competitors. This can be achieved by “access to natural resources, highly skilled labor, strong brand awareness, new or proprietary technology and price leadership” Peterdy (2022, p.2). Competitive advantage, therefore, from an organization perspective, is an inward view, focused on how management can use resources and capabilities to superior produce products and services. However, this view has been criticized as being overly focused on organizations rather than customers who are the true source of competitive advantage (Zhaofeng & Yun, 2010; Sigalas, & Economou, 2013; Distanont & Khongmalai, 2020).

### *Consumer Perspective of Competitive Advantage*

The consumer perspective of competitive advantage is an outward view that focuses on the customer as the source of advantage (Havíř, 2019). This interpretation has been attributed to Porter (1985) who argued that “competitive advantage grows fundamentally out of value a firm is able to create for its buyers that exceeds the firm’s cost of creating it” (p.3). Porter explained value as “lower prices than competitors for equivalent benefits or providing unique benefits that more than offset a higher price” (p 3). Saloner et al. (2005) emphasized the importance of customer value by defining competitive advantage as the ability to “produce some service or product that its customers’ value than those produced by competitors” (p.22). Woodruff (1997) recommended that managers should develop “customer focused competitive advantage by learning extensively about their markets and target customers” (p. 140). The consumer perspective of competitive advantage is focused on creating more value for customers than competitors by satisfying their varied subjective evaluations (Havíř, 2019). Thus, it becomes important to understand the concept of value in formulating strategy for competitive advantage. Customer value is “something perceived by customers rather than objectively determined by a setter” (Woodruff, p. 141). Essentially, it is an evaluation of the costs and benefits involved in consuming products and services. Accordingly, consumers weigh up functional (features), emotional (feelings) and social (self-expressive) against monetary, psychological and time costs in the consumption of products or services (Luo et al., 2021). Thus, organizations are challenged to maximize benefits while minimizing costs to develop competitive advantage.



### *Organizational v Consumer Competitive Advantage*

The organizational and consumer perspectives of competitive advantage are on maximizing value (Ali & Anwar, 2021). However, there is a difference in orientation in that the organizational perspective takes an inward view of value creation in terms of transforming inputs into outputs by the best use of resources and capabilities (Donnellan & Rutledge., 2019). The most value is created by organizations with the best internal processes where reengineering, downsizing, quality control, and restructuring were often deployed to improve organizational performance (Assensoh-Kodua, 2019). Driven by increased competition, more demanding customers, economic slowdown and volatile markets, many organizations change their perspective on value creation to a customer perspective (Pei et al. 2020). Instead of considering value as created by organizations, the new way of thinking considered value as created by customers in terms of the products and services that they are willing to support (Pei et al. 2020). The products and services that create the most benefits in relation to costs are valuable from a consumer perspective and will be supported leading to competitive advantage (Havíř, 2019). Organizations with an outward orientation toward customers compete on superior customer value delivery. By placing the customer at the center of value creation, effective organizations can develop competitive advantage which can be sustained by anticipating and satisfying customers evolving perceptions of value. The customer focused approach has gained popularity as a means of developing competitive advantage (Xue-Liang et al., 2020). Consequently, managers that consider what customers want and what they believe they get from buying and using an organization's products and services are likely to achieve advantage in comparison to those who look inward toward internal processes.

### *Competitive Advantage from Customer Satisfaction*

Competitive advantage and customer satisfaction are closely related concepts, connected by perceptions of value. Competitive advantage is achieved when consumers perceive greater value from an organization than its rivals. The perception is formed by evaluating the benefits against costs of consuming an organization's products and services compared to rivals. Given that overall satisfaction is a customer's feelings in response to evaluations of experiences with products and services, it is thus connected to value perceptions. The greater the perception of value, the greater the satisfaction consumers experience and vice versa (Huang et al., 2013) . It is thus evident that organizations that have competitive advantage create more value and satisfaction for customers compared to rivals illustrating the close relationship between the concepts. Consequently, organizations that create the most benefits in relation to costs compared to rivals, generate the most satisfaction for customers. In sum, customer satisfaction reflect the competitive advantage of an organization.

### *The Growing Importance of Customer Satisfaction*

Satisfied customers, according to Evangelidis and Van Osselaer (2018), are becoming increasingly important in light of the fact that many organization closures are linked to the inability to cope with competitive pressure escalations. This means that the increasing importance of this concept has a lot to do with its ability to equip organizations with the kind of competitive resilience that is required for navigating increasingly competitive environments. Notably, competitive resilience is necessary for modern organizations to survive and prevail in light of the fact that most markets have already reached the maturity phase. A study by Hill and Alexander (2017) indicated that since 2015, most companies have had to deal with challenges that arise from the fact that market maturity forces them to rely on loyal customers "for up to 95% of their business transactions" (p.33). This

strongly suggests that customer satisfaction has already gained pre-eminence over other organizational goals as the firm's struggle to retain their existing customer pools in order to reap benefits associated with repeat buying.

Since repeat buying is almost impossible to achieve without customer satisfaction, organizations, and especially those operating in mature market environments have been coerced into adopting strategies that produce higher customer satisfaction levels (Zablah et al., 2016). Given the prevalent global economic pressures and its influences on consumers purchase behaviours, it is important that companies focus more on enhancing the positive experiences of their customers, and more specifically as relates to mCRM applicability on the issue. Thus, it is necessary that researchers begin to go beyond mCRM as an independent concept, and delve deeper by exploring components related to consumer satisfaction from a multi-disciplinary perspective. Given that most studies have investigated the influences of mCRM on consumer satisfaction by considering mCRM as an independent component, the multi-disciplinary approach helps unearth new ways of designing mCRM systems that can take satisfaction to the next level.

### **2.9.1 Different Models of Satisfaction**

#### *The expectations-disconfirmation model*

This model holds that the extent to which consumers perceive product or service performance surpasses their expectations (affirmative disconfirmation) enhances their satisfaction levels (Oliver, 1980). On the other hand, when performance levels fall below consumer's expectations (undesirable disconfirmation), their satisfaction level declines (Lankton et al, 2014). From such a perspective, it is logical to argue that satisfaction, as described under this model, can be viewed as the positive expression of the difference between product performance and consumer's

expectations. It is also important to note that this model predicts that satisfaction can decline as expectations increase. Thus, rather than serving as an anchor to customer satisfaction, expectations play the role of standardization by serving as reliable contrast-points against which customers are assumed to assess performance information in cases where they are faced with satisfaction judgments.

According to Evangelidis and Van Osselaer (2018), the expectations-disconfirmation framework is problematic when considered with respect to aggregate-cumulative customer satisfaction because it requires complete market segments to hold imprecise performance expectations. Notably, this requirement suggests that customers are unable to learn from their experiences, which is may not be the case (Lankton et al., 2014). Thus, this model advises that managers that have been charged with the responsibility of managing customer anticipations concerning products/services, in some cases, should attempt to lower expectations.

According to Oh and Kim (2017) this is vital because it allows sufficient room to provide customers with services/products that exceed expectations. However, the model has been criticized for over-emphasizing the negative aspects that relate to expectations, instead of focusing on positive aspects. Such criticism appears to be valid, given that organizations that manage the expectations of their target customers by focusing on the negative aspects are likely to unintentionally lower performance standards which ultimately reduces the satisfaction of their customers. Several inputs are related to expectations of value under this framework. These are communications and brand image, online and social-media reports (Lankton, et al., 2014) word-of-mouth, and previous customer experiences (Oh & Kim, 2017). Notably, organizations have managed to exert significant levels of control when it comes to brand image and communication inputs. According to Evangelidis and Van Osselaer (2018) these two inputs are essential if

organizations are to successfully rely on the expectations-disconfirmation framework to establish strong and positive expectations, which produce realistic customer expectations within target markets.

When it comes to the word-of-mouth and online reports inputs, organizations seldom have the capability to exert total control. In an attempt to explain the phenomena, Pansari and Kumar (2017) asserted that these inputs are much harder for companies to control because the generation of positive attention using media is often hindered by similar product/service offers and malicious reviews. The input relating to customer's previous experiences has been deemed most relevant when it comes to existing customers. While explaining the prevalence of this input, Oh and Kim (2017) argued that it gives firms the opportunity to research their existing customers in order to track current satisfaction levels, which is central to enhancing satisfaction.

#### *The perceived-performance model*

This framework theorizes that customer's perception with regards to the performance of products/services and expectations as relates to that performance exerts positive influences on customer satisfaction (Pansari & Kumar, 2017). In this case, performance connotes quality levels attached to products and services through the lens of customers relative to prices attached (Ali, Dey & Filieri, 2015).

The implication of such a definition is that the model describes performance from a value perspective, therefore performance in the eyes of customers has to do with perceived benefits versus costs incurred at the time of transactions. This means that products and services with greater benefits in view of incurred costs lead to higher customer-satisfaction levels. Such a point of view also suggests that the idea of value-disparity holds prominence when it comes to the perceived-

performance framework. Therefore, the model suggests that perceived performance is likely to exert stronger influences on customer-satisfaction as opposed to expectations (Kaura et al.,2015). This argument is founded on the fact that the model allows organizations to re-evaluate information concerning customers and their expectations based on recently acquired performance information(Pansari & Kumar, 2017), consequently assessments related to satisfaction are closely linked to available information on customer expectations.

The perceived performance framework, according to Shabbir, Malik and Malik (2016), indicates that expectations bring on board both positive and direct influences where matters of satisfaction come into play because they provide sufficient and reliable anchorage during satisfaction assessment procedures. Thus, the more robust the anticipations of customers, relative to information concerning performance, the more intense the impact of these expectations on fulfillment levels. This implies that, in cases where performance information takes precedence as the more robust construct, the greater the comparative positive influence will be as concerns customer satisfaction (Paul et al., 2016).

This model demonstrates the positive influences of customer anticipations on perceived performance, which signifies the capability of customer expectations to prove useful in predicting performance. According to Kaura et al. (2015), this particular influence gains intensity in cases where the customers with which organizations are dealing have enormous experience levels with performers that exhibit low variance or can be predicted with ease. Thus, the model is vital in this research because the framework's main predictions as embodied in customer perceptions, the performance of services, and customer's anticipations concerning that performance will prove helpful in investigating the influences of mCRM on customer satisfaction. Ali et al. (2015) believed that this means that mCRM contributes to tailoring products and services carefully and skillfully to meet customer preferences, relative to attached costs, are more likely to lead to

situations where customers are fulfilled with their purchase as well as the attached consumption experiences.

### *The perceived-equity model*

According to this model, satisfaction emanates from customers perceiving that there is fairness relating to output/input ratios in consumption. Pérez and Del Bosque (2015) asserted that this model has remained relevant because of the role that equity plays in matters related to customer satisfaction. Customer's satisfaction levels increase in cases where they feel in that they were treated fairly in the course of transactions. Nonetheless, it is important to note that, for customers to feel satisfied in matters relating to fairness, several factors have to be taken into account. In the opinion of Wu (2013), these factors encompass attached prices, acquired benefits, expended time and energy used up in the course of the exchange, and their previous experiences. As such, the framework holds that satisfaction judgments should take into account more than customer anticipations. This makes the model unique when compared to other frameworks. As observed by Söderlund & Colliander (2015) this uniqueness stems from the fact that the model evaluates satisfaction relative to people/customers during a transaction. Moreover, the model enables organizations to assess satisfaction based on outcomes embodied in shared exchange experiences. This would explain why scholars have opined that the framework provides companies with more comprehensive pictures when it comes to customer satisfaction, and especially in circumstances that may be difficult to capture using other models (Kaura et al., 2015). It is also important to note that this framework has been deployed to help understand disconfirmation in social interactions. The model also views satisfaction in light of relative judgments, which take into account benefits and qualities that are acquired via purchases. Söderlund & Colliander (2015) also supposed that

the uniqueness of this model lies in the fact that customer-satisfaction evaluations consider consumer efforts and the costs attached to transaction completion.

Notably, this argument has been criticized for allegedly over-emphasizing the necessity of considering consumer efforts and attached costs. Despite this point of contention, Pérez & Del Bosque (2015) reported after a study that in over “46% of organizations subjected to study consumer’s satisfaction”(p.25) levels were diminished and held fewer positive attitudes after finding out that their fellow consumers enjoyed better services and reasonable prices when completing their exchanges. This means that their perceptions in matters relating to equitable treatment led to satisfaction judgments that influenced their prospective purchase intentions and expectations. Understanding perceived-equity concepts are essential in this research, given the place of such concepts in unearthing impacts of mCRM as relates to the influences of customer’s perception of equitable treatment on satisfaction levels and competitive advantage.

#### *The Transitional and Cumulative Model*

According to Roy et al (2013), the transitional and cumulative framework of customer satisfaction is founded upon an accumulation of consumption experiences, This model has maintained consistency in fields such as psychology and economics, in which scholars have conceptualized customer-satisfaction as both a transitional and cumulative construct, which allows organizations to acquire a comprehensive overview of customer consumption experiences to present time (Kaura et al., 2015). Thus, the transitional aspect in this framework is incorporated to cover consumer’s experiences with particular products and services in the course of time. As observed by Srivastava and Kaul (2014), this makes the model much more formidable compared to other theories because of its ability to help companies predict prospective behaviours of their



customers, which is a vital requirement given the necessity of retaining customers. By taking into account a time-based perspective, this framework allows organizations to evaluate customer satisfaction based on the influence of their product performance on customer's satisfaction over time (Kaura et al., 2015). This makes this particular model vital, since the capability of mCRM systems to help assess customer satisfaction determines the intensity of competitive advantages that are ultimately enjoyed by organizations. On the other hand, the cumulative aspect of the model helps ~~compris~~ to view present-day customer-satisfaction levels considering the compounded influence of customer's satisfaction episodes.

This unique capability of the model, as opined by Hurley et al (2014), is critical when organizations need to understand the aggregate influence of their decisions at each exchange. Particularly, the transitionary aspect of this framework has gained acceptance since future purchasing patterns of customers are often determined by individual discrete purchases, which adds to the wealth of information consumers use to make purchase decisions. Scholars have appreciated this model because it brings out a comprehensive understanding of the influence of satisfaction on purchasing behavior (Srivastava & Kaul (2014). This capability stems from the fact that the framework does not take into account a single customer experience, but rather builds on satisfaction influences by taking into account multiple exchange encounters. Thus, the transitionary and cumulative model holds that aggregate satisfaction can only be determined by considering transaction-specific fulfillment over numerous time periods (Hurley et al., 2014).

## **2.10 mCRM and Customer Satisfaction**

The significance of mCRM as relates to customer satisfaction stems from the fact that mCRM

systems are often developed to provide the kind of support that is necessary for companies to enhance customer outcomes. According to Lee, Tsao, and Chang (2015), mCRM is increasingly being recognized as one of the most efficient ways of improving customer satisfaction, being the main performance-indicator and key to organizational success. Therefore, modern organizations have approved mCRM because it serves as a fundamental platform for understanding and satisfying customers. mCRM, according to Arcand et al (2017), has become vital for enhancement of customer experiences because of the flexibility it avails to organizations in delivering value. These perspectives as highlighted by Thakur (2014) are embodied in the fact that mCRM incorporates CRM approaches based on process, strategy, philosophy, ability, and technology precepts. Table 3 below summarizes these mCRM concepts as relates to their contribution towards customer satisfaction.

Table 3: mCRM and Customer satisfaction

| mCRM Perspective           | Description   | Success requirement  | Concept  |
|----------------------------|---|--|--|
| 1. Process front           | mCRM enhances seller-buyer relationships making them robust and enduring (Thakur, 2014)   | Organizations should design mCRM systems in such a way that they are able to unearth customers desires.  | mCRM systems when appropriately designed create produce engagement between selling organizations and their target customers. In cases where organizations do not have direct contact with their customers the systems help the firm's agents to engage customers (Lee et al., 2015). |
| 2. The ability perspective | mCRM plays a pivotal role in helping organizations customize their behaviours consistently towards enhancement of customer experiences (Bilgihan, Kandampully & Zhang, 2016). | mCRM systems should be designed after organizations have taken into account their intangible and tangible resources (Bilgihan, Kandampully & Zhang, 2016). Thakur (2016) affirmed this point of view arguing that such considerations make it possible for organizations to flexibly re-model their behaviours towards their customers consistently. | mCRM systems are built upon the desires of organizations to enhance customer satisfaction by customizing organizational behaviours depending on the information gathered through these systems about their customers (Bilgihan, Kandampully & Zhang, 2016).                          |
| 3. Philosophical front     | mCRM systems can lead to better levels of customer retention when they are built to focus on creating relationships with consumers and sustaining them (Shin, 2015).          | mCRM systems should be designed in such a manner as to make customers the focus of companies. This means that their design should incorporate features that can orient organizations towards more accurate comprehension of customers dynamic needs (Shin, 2015).  | mCRM is rather a philosophical work than it is a temporary project. The philosophy underpinning mCRM systems development should be founded upon making customers the center of focus for organizations (Morgeson et al., 2015).  |
| 4. Strategic front         | mCRM systems according to Yang (2015) are designed in view of the customer's life period and value in mind therefore, organizations need to                                   | Institutions should evaluate relationships with each individual customer continuously. In the opinion of Yang (2015), this means that the mCRM systems should be designed based on the   | mCRM simply connotes companies' investments in their customers based on the predictability of their value (Jun & Palacios, 2016). This means that mCRM should help enhance experiences for   |

The summation of the mCRM perspectives in table 5 strongly indicates that the capabilities of mCRM as witnessed through customer satisfaction enhancements have to do with the fact that mCRM is both a process and comprehensive strategy deployed to acquire and retain valuable customers (Jun & Palacios, 2016). From such a viewpoint, it can be argued that mCRM is possibly the only available platform that organizations can rely on when they desire to practice customer selectivity, which allows them to focus on meeting the needs of customers that avail superior value. However, Matzler et al (2015) have criticized mCRM when it comes to customer satisfaction asserting that selecting the most viable customers with which to partner means that organizations will be incapable of satisfying prospective customers that have not met the conditions for the selection criterion. Although such an argument seems valid, it is important to note that organizations need to leverage their resources in light of scarcity issues (Olatokun & Ojo, 2016). This means that mCRM can only generate the anticipated levels of customer satisfaction when

organizations take into account the necessity of selecting customers on which to focus. For example, Sampaio et al (2017) noted that modern organizations are increasingly adopting mobile messaging so that they can develop more personalized and unique communications with their customers, which in turn aids in enhancing their experiences.

As indicated by Bahri-Ammari and Bilgihan (2017), mobile-mediums have become prevalent as formidable platforms for enhancing customer satisfaction because they allow companies to satisfy their consumers based on the desire of modern customers to save money and time. Although this has often been cited as the main reason why mCRM generates customer satisfaction, it is also important to note that mCRM systems also help organizations meet the convenience demand of their customers (Schierholz, Kolbe & Brenner, 2007). In particular, mobile messaging, and especially through the internet, have enabled organizations to meet these demands in increasingly better ways. In an attempt to explain the phenomenon, Sampaio et al (2017) argued that establishing direct contact with customers via mobile avenues helps organizations acquire the kind of information they require in order to augment their capacities to meet customer needs more efficiently.

#### *Interactive and personalized communication*

Cummins et al. (2016) stated that mCRM contributes towards customer satisfaction by making it possible for organizations to engage their customers in interactive and personalized communication. Notably, this is essential if organizations are to enhance their customer intelligence, which is a major pre-requisite for augmented customer satisfaction. Cummins et al. (2016) explained that this particular mCRM contribution works by means of the system improving the ease with which companies gather customer-related information. Acquisition of this kind of

information paves way for organizations to develop better comprehension of their customer's needs. Therefore, mCRM, as opined by San-Martín et al (2016), is ~~only~~ the most recommendable platform for customer satisfaction improvements, because acquisition of customer-related information helps organizations come up with suitable responses to customer desires. This is because mCRM also enhances organizations interactions with their customers since the companies are able to retain records of customer inquiries, complaints, solved issues, and transactions (Olatokun & Ojo, 2016). Such a perspective means that this study will need to take into account the ability of mCRM to foster interactive and individualized communication when investigating the influences of mCRM on competitive advantage and customer satisfaction.

#### *Information access*

The observations of Rodriguez and Trainor (2016) indicate that customers are anticipating to draw more satisfaction from companies that are able to avail access to information. Although some studies have opined that information access is not a contributing factor when it comes to customer satisfaction (Giovanis, 2016; Nikunen et al., 2017), it is important to note that mCRM systems are established upon the convergence of wireless communication and mobile internet (Wali, Uduma & Wright, 2016). This means that it is possible for customers to draw satisfaction from being able to access information anytime and anywhere. Thus, augmented levels of customer satisfaction emanate from the capability of mCRM to provide individualized services and content (Chen, Zhang & Zhao, 2017) at consumer's points of need (Wali, Uduma & Wright, 2016) and provision of content that encapsulates highly engaging features (Rahimi & Kozak, 2017).

### *Ensuring a positive relationship between marketing performance and mCRM*

According to Grewal et al (2016), the majority of organizations that have managed to secure augmented customer satisfaction from mCRM have done so by making sure that a positive relationship exists between their marketing performance and mCRM endeavors. This indicates that, when such a relationship is in place, it should be possible for organizations to achieve the desired levels of customer satisfaction. In an attempt to expound on this requirement, Cummins et al (2016) asserted that mCRM variables such as focus on customers, customer knowledge management, and organizational efficiency have often been used to link mCRM and customer satisfaction. Such an assertion strongly suggests that, unless organizations are capable of identifying specific mCRM variables that can provide support for and enhance promotional outcomes, customer satisfaction may not be attainable. Sampaio et al (2017) affirmed the need to establish this link explaining that customer knowledge management is the most appropriate way of linking mCRM to marketing. This argument is further validated by the fact that marketing could not be focused on consumer's desires without organizations having the ability to manage customer-related information acquired through mCRM.

### *Promoting holistic perspectives on customer requirements*

According to Yang (2015), the main reason why mCRM can generate higher customer satisfaction is that it avails companies with the opportunity to acquire comprehensive perspectives of customers' desires. Such an opinion is qualified by the fact that mCRM helps organizations to acquire valuable data concerning procurement, after-sales- services, customer service, and the efficacy of marketing and sales departments (Shin, 2015). Acquisition of such data is crucial to the enhancement of customer fulfillment levels because information analysis ultimately gives

organizations more holistic views when it comes to customer desires in real-time. Nonetheless, Bahri-Ammari and Bilgihan (2017) believed that organizations may not be able to generate the desired levels of satisfaction when employees are incompetent in gathering and analysing data. On the other hand, companies still generate higher customer satisfaction levels when their workers are able to rely on the data when faced with the need to make faster and more accurate decisions. These decisions help organizations to augment their customer fulfillment levels because the worker is better placed to deal with individual customers as determined by their dissimilar touch points and areas of concern (Shin, 2015). As such, it is important to take into account the ability of mCRM to foster holistic views of customer requirements when investigating the impacts of mCRM on customer satisfaction. This is necessary because holistic views are fundamental to organizations being able to adjust their operations and policies based on the need to satisfy their consumers.

#### *Aligning mCRM with organizational culture*

Research done by Grewal et al (2016) indicated that most organizational endeavors that have been focused on acquisition of higher levels of customer satisfaction have failed to produce anticipated results because the companies did not take into account the need to align mCRM with organizational culture. Such an observation explains why this alignment has been deemed as one of the most critical factors determining mCRM outcomes. Although Rodriguez & Trainor (2016) suggested that the factor is mostly applicable in the hospitality sector due to the necessity of personal contacts and industry's nature, it is important to note that the alignment or lack of it is potent enough to exert impacts in any other business.

Additionally, a study conducted by Alnawas & Aburub (2016) indicated that modern corporations are increasingly seeking to align their mCRM systems with organizational culture to counter the

difficulties associated with mCRM implementation. Such a statement strongly suggests that, if organizations can achieve this alignment, the customer satisfaction objective would be easier to obtain. From such a perspective, it is logical to assert that companies that reap customer satisfaction benefits associated with mCRM have cultures that facilitate employee-empowerment, which is a major pre-requisite for mCRM since the workers are better equipped to operate mCRM systems and excel in matters touching customer service (Bilgihan et al., 2016).

### **Innovative mCRM and Customer Satisfaction**

A review of the literature revealed that the most commonly identified innovative mCRM processes are customization, interactivity, convenience, service, and security. This provides a useful framework of innovative mCRM processes to consider the impact on customer satisfaction. Each component is considered individually in terms of potential impact on customer satisfaction.

#### *Customization*

Customization is the tailoring of a product or service to the specific needs, wants, and preferences of an individual or group of customers for better satisfaction. As such it represents the ability of an organization such as Samsung to enable customers to access services that are tailored on an individual basis to meet specific end-user requirements. Customization generates the perception of improved choice for customers, and in this regard, allows an organization to focus on offering superior value to a recognition of preferences to a superior degree (Kim & Hyun, 2011). Recent technological developments support customization by democratizing the process through customer-led decisions rather than organizational led decisions. Consequently, customization empowers customers to seek value that is relevant to their preferences. The emergence of a



discerning consumer creates challenges where firms can enhance satisfaction by focusing on customization as a value-added improvement (Anyebe & Zubairu, 2019). As such, organizations are advised to make amends to their strategies since the new consumer-generation is increasingly exhibiting high expectations. According to Ai & Wu (2016), these expectations not only stem from technological improvements related to mobile devices, but as well emanate from the fact that more than most consumers are accustomed to the digital world. Therefore, operators should recognize that consumption alterations present an opportunity upon which they can build for enhanced satisfaction. In the opinion of Stone (2015), operators should focus more on high-quality and seamless omni-channel interactions in order to meet the changing consumer demands. Camponovo et al. (2005) explained that the value of mCRM is in customizing experiences via close relationships between customers and organizations through tailored solutions. For instance, through mobile technology, customers can take a print screen of a technical issue they are facing with their mobile phone or record a video and send it through mCRM to help technical advisors understand the nature of the technical issue to provide accurate and fast solutions. Sinisalo et al. (2015) confirmed the effectiveness of using mobile applications to provide personalized, relevant information for users, through a “customized landing page, showing for example, the chatter feed, task list and recently used items (p.6). Kim et al (2015) concluded that “from the user’s perspective, wireless internet devices are usually more personal and individual than stationary ones” (p.748) where customization can increase value of user satisfaction. Research by Alnawas & Aburub (2016) found that mobile applications provide “personal integrative benefits” (p.318) positively associated with consumer satisfaction and purchase intentions in a mobile context. The concept of customization is prevalent in the literature on mCRM where the key advantage is in being able to personalize solutions and communications directly towards the needs of individual users. As technology improves, and more users embrace online applications, there will be greater scope for

individualizing the consumer experience using mCRM innovative processes that can enhance satisfaction.

### *Interactivity*

Another innovative process of mCRM is interactivity which is effective in facilitating two way communication among organizations and customers to enhance satisfaction (Chen, 2012), in this regard, customers can access and gain greater information from organizations, relevant to their needs and interests by means of mCRM.

A more interactive experience among organizations and customers helps to develop relationships as information is exchanged that can be used to enhance the value proposition over time (Sinisalo et al., 2007).

One of the most important aspects of mCRM is establishing a flexible method of communication that allows customers to ask questions or claim service and organizations to push information back to the customers. Interactions through mCRM naturally support a set an individualized communications between customers and organizations that create flexibility when both customers and organizations are free to communicate at any time or from any location, unlike traditional CRM in this regard (Sinisalo et al., 2007).

While pursuing customer-centricity, organizations can as well personalize interactivity to ensure that customers do not switch to their competitors. Interactivity helps in identifying value adding aspects of mCRM that can be leveraged for customer satisfaction. This is because of the ability of mCRM systems to provide an inclusive, interactive platform for consumers to express opinions and share ideas (Sinisalo et al., 2007).

Operational data retrieved from customer interactions can be used in modelling algorithms to help business managers to make decisions based on the data analysed. Subsequently, the data mining

application in mCRM can help organizations to predict future trends by analyzing the existing customers' data for improving satisfaction. Mastorakis et al. (2015) observed that "mobile networks are well suited to enhance traditional CRM systems, offering interactivity that allows a company to develop intimate relationships with customers" (p.3). The authors explained that mCRM has a key advantage in terms of companies' responsiveness to customers demand for service, inquiries, suggestions, and feedback that increases common advantage for both parties. Chen et al (2017) further emphasized the notion of interactivity, concluding that "companies could use online communities and social media sites to interact with customers and obtain feedback" (p.12). Lee et al (2015) in a study on mobile phone usability observed that "interactivity is important for improving user experience with mobile services" (p.296). The authors' research concluded that interactivity leads to greater satisfaction, trust, and brand loyalty due to enhanced communications between companies and customers.

Because of the prevalence of technology and its use in today's society, customers are using mobile devices for different reasons. Particularly since the Covid 19 pandemic, an increasing number of people are using mobile devices to complete a number of tasks such as online shopping, e banking, online learning, arranging, and booking travel, and socializing (Chen et al., 2017). In response, companies are providing more avenues for communication with customers especially in the online environment. Using mCRM, for example, customers can make inquiries, purchase products and services, give feedback and make suggestions more effectively in comparison to traditional mCRM methods. Consequently, mCRM through innovative processes has emerged as an effective medium for generating positive interactions between companies and customers for greater satisfaction.

### *Convenience*

A further innovative mCRM component is convenience where use of a product or service is

simplified to become intuitive and user-friendly that can result in better satisfaction of customers (Chen, 2012). The application of mCRM programs can add customer convenience through the automation of processes that reduce time and effort of customers in the consumption of a product or service. For example, the development of near field technology for customers who can use mobile devices to pay for products and services rather than using cash or credit cards. Innovative mCRM provides convenience for customers that can improve satisfaction by providing an easily assessable set of services with rapid feedback (Awasthi & Sangle, 2013). For example, when a customer registers a service claim or is searching for self-service tips, the process can be completed without having to visit a local store or support center. Innovative mCRM allows customers to share ideas, suggestions or conversations with organizations creating a community in a form of chat on a topic. This service makes access to information, ideas, and support more convenient and delivers high value to customers (Singh & Chiliya, 2014). This type of community can informally convey the organization's strategy creating enhanced connectivity between employees, customers, and organization for convenient communications and ongoing relationships (Rodriguez & Trainor, 2016). Sinisalo et al., (2015) emphasized the convenience factor of mCRM because "customers can more easily access detailed information based on specific needs" (p.8). Camponovo & Pigneur (2005) concluded that "wireless networks allow applications to use a set of unique advantages of mobile communications such as ubiquity, reach ability, security, convenience, localization, instant connectivity, and personalization" (p.10). Chan (2012) in a study on the adoption of mobile customer relationship management observed that mobile phones have become ubiquitous and "with ubiquity, convenience is brought upon users as they can easily retrieve information anywhere at any time (p 46.) Singh & Chiliya (2014) in a comparative study of rural and urban consumers, found that "the mobile medium represents a cost-effective and convenient communication channel" (p.281), particularly for urban consumers who may not have access to local support.

Research by Awasthi & Sangle (2013) found that “perceived ease of use and compatibility” (p.911) were important factors affecting the adaptation of mobile services from a CRM perspective. Mobile services that were perceived as easy to use and compatible were likely to be adopted by customers resulting in better satisfaction.

### *Service*

Another important innovative mCRM process that can impact customer satisfaction is service which can be provided through various mobile enhanced programs such as technical support, ordering products, arranging insurance, and organizing delivery (Kim & Hyun, 2011). Service is also considered one of the key processes that adds value and benefits to for customers (Kim, Lee et al., 2015). Implementing full service and self-service materials such as videos, technical troubleshooting, articles, and diagnostic processes empowers customers to understand their device performance, rectify issues at any place and time while helping organization to reduce costs from an excess number of technical advisors at service points (Awasthi & Sangle, 2013). Negahban et al (2016) explained that mCRM acts a communication tool between organizations and customers to a whole range of communications, internally between employees in different department within an organization such as service, sales or marketing to support building improved service offerings to customers and prospects. Knowing customers location is also a core component of mCRM that helps organization to feed customers through notifications to value added services nearby (Rao & Minakakis, 2003). Incorporating a knowledge-based component in mCRM helps front line employees such as service-advisor-technicians to receive updated information through service binaries and diagnostic processes that ultimately reflect on customers’ satisfaction (Kim, Lee et al., 2015). Sinisalo, et al. 2005, explained the success of the integration of service, sales, and

marketing through mCRM, and how this reflects in enhancing the organizational supply chain processes and improving customer experience since the service sector is dependent on customer data, therefore the faster managers can get customer data, the better the process to deliver service. Ranjan, et al. (2009) discussed how mCRM improves services process by serving as a single virtual service point that help organizations to reduce physical service premises which is considered as a cost center due to its traditional operational cost such as salaries and rent, in addition, the timely manner by which mCRM interacts with customers at any time anywhere, helps improve quality of service to customers. Shin (2015) carried out research on customer satisfaction with smartphones concluding that service quality is a key factor as “more and more smartphone applications evolve as a service, the issue of quality has become an most important factor in such services” (p.629). The author explained that satisfaction with smart phones would increase as a result of better quality of service in systems, content and information flows between organizations and customers. Grandhi & Chugh (2012) also concluded that businesses using mobile CRM applications “can allow their staff to access customer information ubiquitously thus offering faster and improved services” (p.388). mCRM has limitations provision of services, for example, fulfillment of Sim cards, repairs and upgrades that still require a physical presence by the customer. However, the technology is advancing an increasingly able to provide a wider range of services with the greater capacity to satisfy various diverse customers.

### *Security*

Finally, security is an innovative mCRM processes that can impact satisfaction of customers as data protection becomes enhanced through automated processes tailored to the needs of customers (Ranjan & Bhatnagar, 2010). In common with desktop and enterprise applications, traditional mCRM processes had security vulnerabilities that could lead to sensitive information being

captured by third parties for a variety of different unwanted reasons (Anyebe & Zubairu, 2019). Further, early mobile applications could expose information about contacts, locations, messages, images, and sensor data. In response, innovative mCRM systems have become effective in ensuring security and safety of data by reducing risk of intrusions while maintaining a seamless user experience (Oh & Kim, 2017). This is largely achieved through mobile application management (MAM) that secures applications with customizable protections where administrators remotely manage the applications already present on devices to newer apps that are later installed (Kale, 2013). A range of functions can be carried out by MAM, including the configuration of security policies, data protocols, and protection on a real time basis, thus ensuring user security and safety (Leavitt, 2013). Threats are managed proactively through Runtime Application Self-Protection (RASP) that protects against threats of sophisticated malware attacks and data capture programs by detecting and deleting fraudulent intrusions before they can take action and become a security concern (Lillard & Al-Suqri, 2019). RASP integrates into mCRM seamlessly and is an automated function that continuously monitors mobile data activity where threats are immediately identified and actioned without the need for human intervention. Potential security issues that can arise from sending and retrieving data from the cloud is protected by RASP that automatically tracks movements of data while intercepting any malware or trojan attacks.

Thus, the technology supports an effective, secure, and safe use of mCRM to benefit customers who can be assured of protection on a real time basis (Yang et al., 2017). A study by Hasan et al. (2015) concluded that “integrating mobile devices into enterprises brings new security risks and challenges” (p.31) The authors recommended that “security countermeasures must be applied to mobile devices to secure corporate data (p.31).Ranjan & Bhatnagar (2010) carried out research on security enabled process architecture for mobile CRM, concluding that “the mobile medium will likely be threatened by unauthorized users and recommended “the use of measures to enable the

secure transmission of customer information” (p.452). This emphasizes the importance of security as an innovative mCRM process, particularly as risks and threats are increasingly complex and continue to emerge from new sources. Rayed (2019) researched small and medium enterprises to determine key factors that add value, concluding that “the first priority is providing the customer relationship application and the second priority is security systems (p.1901). The need for organizations to invest in adequate security systems and develop an architecture to safely transmit and receive information on wireless platforms without slowing data transfer was concluded in the study. Developing innovative mCRM processes that can provide adequate security is an important goal for organizations to secure information while encouraging trust and commitment. Conversely, organizations that do not adequately invest in security systems for mCRM processes are unlikely to attract sufficient usage from customers unwilling to embrace the medium. Security, is thus an mCRM process that can provide the level of trust expected by today’s customers and by meeting expectations, improves satisfaction

### **Empirical Studies on mCRM and Customer Satisfaction**

Academic studies are theoretical and focus on models and frameworks while empirical studies make use of theory by testing it in practice by collecting and analyzing data. Customer satisfaction has become an increasingly important topic and goal for organizations given its potential for differentiation in markets with high levels of competition. A range of studies have been carried out to determine whether mCRM influences customer satisfaction. The literature indicates that in many cases mCRM enhances customer satisfaction but in other cases it does not enhance satisfaction while in further studies, findings are inconclusive for the relationship between mCRM and satisfaction is unclear.



### *mCRM Enhances Customer Satisfaction*

A range of studies in different sectors and contexts found positive and significant impacts of mCRM on consumer satisfaction. For example, a study of the strategic value of mCRM applications by Grandhi & Chugh (2012) in the satellite-based television sector in Australia concluded that mCRM helps to improve customer satisfaction through data that provides better understanding and fulfillment of customer needs bringing advantage through a more loyal customer base. In the mobile handset market in South Africa, Ianessa & Chiliya (2014) concluded that mCRM is beneficial as it enhances the levels of customer satisfaction by enabling the provision of efficient mobile marketing communication services and improve business performance through better customer retention rates. In the Nigerian mobile handset market, it was also concluded that market performance improved as a result of embracing e-services and internet-based customer interactions because of improved levels of satisfaction (Sunny & Abolaji, 2015). Hsu & Lin (2008) investigated the opportunities that mCRM presents for modern business entities across all industries to enhance their customer satisfaction by using mCRM platforms. Using a single-case study, the researchers interviewed workers from Taiwan's E-Sun Bank in order to unearth the diverse ways through which mCRM contributes towards customer satisfaction improvements. Information from this company led the researchers to conclude that mCRM supports customer satisfaction strategies by bringing in the desired changes in their CRM structures. Particularly, Hsu & Lin (2008) noted that mCRM helps enhance existing CRM capabilities by facilitating the integration of their wireless-technologies into sustainable customer-oriented strategies.

In the tourism sector in Spain, it was found that digital technologies positively impacted satisfaction of customers through enhanced customer relationships and improved understanding of

customers' evolving needs and request fulfillment (Mastorakis et al., 2015). In the same country in the commercial, industrial, and technical services sectors use of mCRM improved satisfaction of customers as well as commercial benefits through improved revenue generation (San Martín et al., 2015).

Deng et al (2010) carried out an investigation into mobile instant messages (MIM) as deployed within China in order to understand the influence of this mCRM platform on customer satisfaction. In the course of their research, they discovered that the use of MIM's in China had tremendous influences on customer satisfaction levels in the country. Particularly, Deng et al (2010) found that the mCRM avenue had helped firms to enhance customer satisfaction and loyalty levels by 3%. The study concluded that mCRM platforms, and especially MIM's contributed to customer satisfaction because organizations were able to enhance trust levels among their customers, improve customers emotional and functional value, and as well augment perceived customer value. Kumar & Pansari (2016) explored impacts that mCRM produces when used as a strategy for enhancing customer satisfaction. While carrying out the investigations, they focused on four key mCRM concepts, namely: mCRM orientation, technology, organization, and processes and discovered that these mCRM dimensions exhibited significant relationship in matters related to customer satisfaction. Nonetheless, after considering all impacts simultaneously, Kumar and Pansari (2016) concluded that mCRM orientation and processes stood out as having the most significant influences on organizations capabilities to enhance their competitiveness through improved customer satisfaction.

Alnawas & Aburub (2016) researched the impact of interacting with mobile apps on consumer satisfaction and purchase intentions. This study extended the "uses and gratifications" approach, typically used in a web context, to mobile applications to determine benefits generated. A survey was carried out on 358 people in the country of Jordan in the Middle East and the data was analyzed

using structural equation modeling to determine relationships. An analysis of the data found that personal integrative and hedonic benefits positively and significantly impacted customer satisfaction and intention to purchase. Personal integrative benefits enhance the users' perception of self-efficacy while hedonic benefits represent pleasure experiences. The research of Alnawas & Aburub (2016) indicates that mCRM is more than functionality as it is also an experience that can impact on perceptions of satisfaction.

Valsecchiet et al.(2007) carried out research and analysis of mCRM in an Italian context. The research was carried out in two phases; the first phase involved identifying the most popular mobile applications in use by companies and the second phase involved 20 case studies using a mail questionnaire, followed up with interviews managers of some companies using mCRM. An analysis of the data revealed that mCRM improved customer relations and satisfaction while simultaneously improving operational efficiencies.

In a Saudi Arabian context, Talet et al., (2011) examined satisfaction with mCRM initiatives of mobile companies. A survey of 440 users of different mobile phone carriers was carried out on aspects of mobile services. Talet et al., (2011) came to the conclusion that “the quality of customer service significantly affect customer satisfaction” (p.1). Alolayan & Al-Kaabi, (2020) aggregated a range of studies to determine the benefits of mCRM a conclusion that it not only helps companies improve their relationship with their customers, but also helps them reduce the cost of acquiring new customers” (p.46).

### *mCRM Does Not Enhance Customer Satisfaction*

There are studies that do not conclude a positive and significant impact of mCRM on satisfaction of customers. A large-scale empirical study across different sectors in Germany concluded that

acceptance of mCRM was relatively low and the reticence risk for mobile services should not be underestimated, thus it was noted that mCRM did not significantly impacting satisfaction of customers (Silberer & Schulz,2012). The same conclusion was drawn in a study in the hospitality sector where customers' perceptions of usage complexity and risk as well as a preference for traditional CRM, led to a reluctance to embrace innovative mCRM processes (Chan, 2012). Similar findings were reached in a study of the Dutch mobile handset market where there was a low adopting rate by customers of mCRM not willing to use mobile applications for service support and interactions with sellers (Boris, 2013). In a UK study of the top eleven multimedia companies, it was concluded that mCRM cannot be relied upon as a means of improving customer satisfaction as its impact on customers is unlikely to be large enough to significantly raise satisfaction levels (Alim &Ouzel 2014). Saleem & Rashid (2011) conducted a study to investigate the relationship between customer satisfaction and the adoption of mobile banking in Pakistan. The researchers using questionnaires to carry out data collection focused on questions that could help determine whether satisfaction levels had risen or fallen owing to the adoption of mCRM in the form of mobile banking by financial institutions in the country. After the study, Saleem & Rashid (2011) concluded that dissatisfaction levels were relatively high because customers were concerned about issues of authenticity, reliability, and security of mCRM technology. According to Saleem & Rashid (2011), these concerns were indicative of the fact that organizations seeking to secure higher levels of customer satisfaction should focus on the acquisition of mCRM systems and applications that emphasize on enhancing customer trust. In the international airline sector, it was found that, while mCRM represents technological innovation, but the extent to which it positively affected satisfaction was insignificant (Vorley (2013). Vorley (2013) and Boris (2013) are in agreement that mCRM acceptance has evolved but customer's expectations have also evolved to higher levels whereby it may not raise satisfaction and thus have little impact as a

differentiating factor for today's customers. These studies help explain why many mCRM projects failed in achieving organizational objectives such as raising customer satisfaction by over-focusing on infrastructure, system implementation and process alignment rather than enhancing the customer experience (Becker et al, 2009; Elmuti et al, 2009). Opponents of mCRM highlight the challenge that organizations are facing in the absence of a structured mCRM framework and the lack of research on adopting mCRM applications (Zheng, 2011). Hence organizations are often unable to make an informed decision on investing in mCRM as its impact on customer satisfaction is not guaranteed (French, LaBerge & Magil, 2011).Suntornpithug & Suntornpithug (2012) investigated customers perceptions of text messaging in mCRM. Based on the findings of a focus group of 12 mobile users and 926 survey respondents, the research concluded that the majority of customers were reluctant to receive unsolicited text messages finding them interruptive and the privacy concern. Thus, the research indicates that mCRM is a technology that does not necessarily result in customer satisfaction with the authors concluding that "the key to success is to understand what customers really want over time and to incorporate human processes into the use of the technology"(p.41). Singh & Singh (2011) investigated mCRM initiatives of Indian retailers to determine the impact of demographics on consumer perceptions. Based on a survey of 678 respondents the research concluded that mCRM had the greatest impact on younger, male age groups compared to other groups. Thus, mCRM could be more or less effective depending on demographic factors which need to be considered when developing mobile initiatives. Awasthi & Sangle (2013) carried out research to examine a framework for mCRM adoption in the banking sector to determine success factors. Based on data collected from a focus group, reluctance to embrace mCRM was expressed. This was based on the perceived technical limitations of mobile phones, along with security and privacy concerns where respondents expressed a preference for online rather than mobile services. Rajini & Sangamaheswary (2016) researched CRM in the

Indian telecom industry finding that marketing has a greater impact on customer satisfaction compared to technology. The authors recommended that telecoms providers should collect and analyze customer data for deeper insights about consumer preferences. Based on this information, telecom providers could develop mobile services to better meet the needs of customers in a highly competitive market.

### *mCRM Inconclusive on Customer Satisfaction*

There are further studies that are inconclusive as to whether mCRM positively and significantly effects the satisfaction of customers. In the Turkish mobile handset market, it was found that mCRM could contribute to better relations with customers thus effecting satisfaction with a potential impact on gaining an advantage, but the authors acknowledged that the impact was not conclusive or universal (Dursun & Çelik, 2017). In the Italian telecommunications market, it was found that customers had an uneven adoption rate of mCRM to the point where the impact on customer satisfaction and company performance was indeterminate (Camponovo, 2005).

In the Malaysian banking sector, it was found that the majority of customers adopted mCRM services, but it was inconclusive whether or not customer satisfaction was impacted or the performance of companies in the market (Ndubisi et al., 2007). In the Lithuanian mobile telecommunications market, a study was carried out to determine the relationship between mCRM, customer engagement, satisfaction, and perceived value where a relationship was confirmed between the variables. However, the overall findings were indeterminate as to the impact of mCRM and further research was recommended (Dovalienea et al., 2015). A study of publications on mCRM in different regions including East Asia, North America and Europe concluded that it has differing impacts on customers depending on a range of influencing factors such as cultural

context, market type and embracement of technology by users (Liu, et al., 2020). Research by Viljoen et al., (2005) concluded that many organizations are not ready to implement mCRM due to a lack of customer data, integrated systems, and ability to support a mobile framework. Further, the authors advised that “CRM needs to be seen as more than just technology with the technology being regarded as the enabler of the CRM strategy” (p. 108). Viljoen et al., (2005) acknowledged that technology appeals to different customer segments and can be an important factor for customer satisfaction. However, a multichannel approach was recommended as being the best way to generate satisfaction, thus, mCRM should be developed to complement rather than replace other strategies. Payne & Frow (2005) came to the same conclusion about a multi-channel framework as the authors advised managers to consider customer relationships as a wider concept than technology and not depend on mCRM as the sole means of satisfying customers. A broader, strategic, cross functional perspective was advised by the authors, where technology plays an important but complementary role in delivering value for customers. Smith (2007) noted that for mCRM “the opportunities are endless, but mistrust still is a major issue” (p.22) thus it does not necessarily enhance customer satisfaction. The author explained that cultural and individual factors must be taken into account by organizations introducing technology driven CRM to provide the best chance of success. Thus, initiatives such as mCRM can be value creating and engender satisfaction when carefully planned as part of an overall more holistic approach to developing and maintaining relationships with customers. The literature thus provides mixed findings on whether or not mCRM positively and significantly impacts the satisfaction of customers as findings are dependent on specific market and situational factors. Thus, a knowledge gap on the impact mCRM on customer satisfaction emerges where academics and practitioners are calling for more research (Awasthi & Sangle, 2012; Grandhi & Chugh, 2012; Mastorakis et al., 2015). In response, this study aims to address the knowledge gap specifically in the case of Samsung, Dubai, UAE.

## 2.11 Knowledge Gap

A review of the literature on the relationship between mCRM and customer satisfaction does not provide conclusive findings and thus a knowledge gap has emerged. Some studies found positive and significant impacts of mCRM on consumer satisfaction (Alnawas & Aburub, 2016; Alolayan & Al-Kaabi, 2020; Deng et al., 2010; Grandhi & Chugh, 2012; Hsu & Lin., 2008; Ianessa & Chiliya, 2014; Kumar & Pansari, 2016; Martín et al., 2015; Mastorakis et al., 2015; Sunny & Abolaji, 2015; Talet et al., 2011; Valsecchiet et al., 2007). Other studies did not conclude a positive and significant impact of mCRM on customer satisfaction of customers (Alim & Ouzel 2014; Awasthi & Sangle, 2013; Becker et al, 2009; Boris 2013; Chan, 2012; Elmuti et al, 2009; French et al., 2011; Rajini & Sangamaheswary, 2016; Saleem & Rashid, 2011; Silberer & Schulz, 2012; Singh, 2011; Suntornpithug & Suntornpithug, 2012; Vorley & Budd, 2013; Zengh, 2011). Further studies are inconclusive as to whether mCRM significantly effects satisfaction of customers (Camponovo, 2005; Dovalienea et al., 2015; Dursun & Çelik, 2017; Ndubisi, Kok et al., 2007; Liu et al 2020; Payne & Frow, 2005; Smith, 2007; Viljoen et al., 2005). A review of the literature indicates that mCRM as a complex interdisciplinary topic and its impact on satisfaction is remains uncertain as different outcomes have been found in different sectors and geographies. Therefore, it remains unknown whether mCRM would enhance the satisfaction of customers of Samsung, Dubai UAE and this presents a knowledge gap worthy of closing via empirical research for managerial and academic reasons.

For management, the research will provide information that could be useful in forming strategy towards mCRM. There has been a realization that engaging customers by mCRM might provide a valuable means of increasing satisfaction in a market where achieving the same outcome is



increasingly difficult due to a technological plateau and increased competition. Samsung has been at the forefront of innovation in hardware (mobile handsets) which has helped the company to achieve market dominance, however, by developing improved software (mCRM) the company has an opportunity to increase customer satisfaction at a fraction of the cost of hardware investment. However, the problem is that it remains uncertain as to whether mCRM would significantly impact customer satisfaction and particularly in terms of which aspects (innovative processes). The results of the research will indicate the different level of impact of the innovative processes of mCRM on customer satisfaction which could be useful for Samsung in terms of reconfiguring and allocating resources for improved strategy. This is particularly useful information given the fact that currently there is limited scope in improving the hardware side of the business (mobile handsets) while the software side (mCRM) represents a cost-effective opportunity for changes could be enacted quickly and produce considerable results. Therefore, this research will provide useful information for managers at Samsung and other companies interested in mCRM as a strategy to enhance customer satisfaction while simultaneously bringing other benefits such as competitive advantage, enhance profitability and customer loyalty.

For academics, the research will add to the body of knowledge on the relationship between mCRM and customer satisfaction in a sector and geography (UAE) that has not been previously researched. In addition, the research will provide an opportunity to examine the innovative mCRM processes model to determine which factors (customization, interactivity, convenience, service, and security) contribute most towards customer satisfaction. This may be useful to academics interested in the topic where the research results might provide a basis for other researchers to investigate and build upon. Thus, the research will advance knowledge in the area of mCRM and customer satisfaction that can move the field forward by a better understanding of the relationship between the variables. The innovative mCRM process framework might provide useful mechanism for other researchers to

examine the impact on different variables other than customer satisfaction such as brand image, competitive advantage, profitability, and customer loyalty. Finally, the findings of the research can provide a useful benchmark for regional and international comparisons and investigating differences that can occur in the same sector or other sectors in different market geographies.

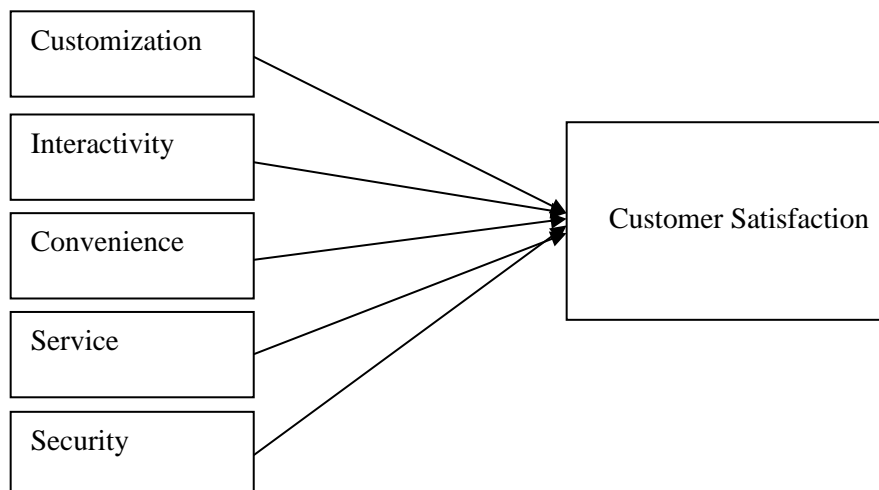
## **2.12 Theoretical Framework**

A review of the literature indicates that the key components of innovative mCRM are the processes that can enhance the customer experience. These are the customer-facing benefits enjoyed from an innovative mCRM system in the form of customization, interactivity, convenience, service, and security. There is a lack of consensus in the literature on the impact of innovative mCRM processes on customer satisfaction, opening a knowledge gap that is worthy of closing given the level of interest in the topic and the potential impact of mCRM to enhance customer satisfaction given that other avenues remain relatively limited.

Accordingly, the innovative processes of mCRM form the key factors of the independent variable (mCRM) that is related to the dependent variable of customer satisfaction in a theoretical framework where the former is hypothesized to influence the latter. The innovative processes of mCRM can influence customer satisfaction through the perceived benefits provided by each factor where satisfaction is a cost/benefit evaluation of products and services by consumers (Chen, 2012). Customization effects satisfaction from customer perception of improved choice allowing organizations to focus on offering superior value to a recognition of preferences (Anyebe & Zubairu, 2019; Beshir et al., 2020; Bilgihan et al., 2016; Camponovo et al., 2005; Chen et al., 2017; Mastorakis et al., 2015; Sinisalo et al., 2015). A more interactive experience between organizations and customers effects satisfaction as information is exchanged that can be used to enhance value propositions over time (Chen; 2012; Mastorakis et al., 2015; Lee et al; 2015; Negahban et al., 2016;

Rayed, 2019; Sinisalo et al., 2007). The convenience factor makes access to information, ideas and support easier for customers, thus effecting satisfaction (Awasthi & Sangle, 2013; Camponovo & Pigneur ,2005; Chikweche & Fletcher, 2013; Kim & Hyun, 2011; Rodriguez & Trainor, 2016; Singh & Chiliya, 2014; Sinisalo et al.,2015), The mCRM service factor empowers customers to better understand device performance and rectify problems on -the-go (Awasthi & Sangle, 2013) that can impact the satisfaction of customers (Grandhi & Chugh;2012; Kim, Lee et al., 2015; Łukowski, 2017; Negahban et al., 2016; Quadros,2022; Ranjan, et al., 2009). Finally, the security factor of mCRM can affect customer satisfaction by ensuring security and safety of data and reducing intrusion risks while maintaining a seamless user experience (Doherty, 2021; Lillard & Al-Suqri, 2019;Ranjan & Bhatnagar, 2010; Strzelecki & Rizun, 2022;Varghese, 2022). Thus, it is hypothesized that innovative mCRM processes impact the satisfaction of customers, the former as an independent variable and the latter as a dependent variable in the theoretical framework of this study presented in figure 1 below.

Figure 1: mCRM innovative processes and customer satisfaction



(Author developed, 2022)

## **2.1 Research Hypothesis**

H1: mCRM customization positively and significantly impacts customer satisfaction.

H2: mCRM interactivity positively and significantly impacts customer satisfaction.

H3: mCRM convenience positively and significantly impacts customer satisfaction.

H4: mCRM service positively and significantly impacts customer satisfaction.

H5: mCRM security positively and significantly impacts customer satisfaction.

## CHAPTER 3: RESEARCH METHODOLOGY

### 3.1 Introduction

This study is based on the case of Samsung, Dubai, in the UAE, examining the impact of innovative mCRM processes on customer satisfaction. The research problem addressed is whether mCRM creates satisfaction for customers of mobile phones of Samsung, Dubai, UAE. The research methodology discusses the procedures and methods used in conducting this research to attain its purpose. In particular, the methodology covers the philosophical orientation, the design, and methods of research, research strategy, sampling techniques, and methods of data collection and analysis, which were all geared to the achievement of the following research objectives:

RO1: To identify and determine the key innovative mCRM processes through view of the literature.

RO2: To identify and measure the impact of innovative mCRM processes on customer satisfaction.

To achieve these objectives, the research adopts a deductive methodology to gather and analyse quantitative data. Thus, a quantitative, correlational design is used to gather and analyze data on the effects of innovative mCRM processes (customization, interactivity, convenience, service, and security) on customer satisfaction as applied to Samsung, Dubai, UAE.

## **3.2 Philosophical Orientation**

Research philosophy is a layout of rules on how information and data on any occurrence under study should be gathered, analysed, and utilized. To satisfactorily answer any given research question, it is significant to choose a research philosophy that suits the study being undertaken.

The philosophical considerations seek to offer the researcher's world view from a more practical point of view (Aliyu et al., 2014). The research methodology that is selected in any given study is determined by the research philosophy. Philosophical considerations are better studied and understood in light of ontology and epistemology.

Ontology is the originality and reality of information and is defined as the correctness of the information needed for a particular study and how and how that information can be obtained (Saunders, 2009). Bryman (2016) identified that some of the research philosophies employed in the world of research include positivism, interpretivism, realism, pragmatism, and post-modernism. The most commonly used research philosophies are positivism and interpretivism. Positivism, advances the belief of objectivity supported by facts in the study of any given occurrence (Aliyu, Bello, Kasim, & Martin, 2014). It dwells on "real" concepts and the applicability of innate ways adopted in studying a particular occurrence that gives forth to one answer that is considered real. It is a philosophy that advances the notion that observation and testing should only be carried out on things that are measurable to provide laws that are not specific. Since this study seeks to identify and measure relationships among independent and dependent variables (mCRM and customer satisfaction) a positivist philosophy is selected.

On the other hand, interpretivism seeks to give answers to a research question subjectively (Saunders, 2009). The interpretivism philosophy is built on the notion that through observation, the meanings of certain occurrences can be deduced where these occurrences are creations of

Communal surroundings. Additionally, according to the interpretivism philosophy, what is perceived as being real is a creation of a dynamic social environment (Potrac, Jones, & Nelson, 2014). Interpretivism, goes a step further and argues that what is seen to be real does not exist externally and independently from human beings as the latter have endeavored to comprehend the world around them fully. This study does not use the interpretivist philosophy given that it is more suitable for building theory rather than testing theory as required in this research. Moreover, the interpretivist philosophy is not suitable it does not produce inferential data required to measure the relationship among mCRM and customer satisfaction as required in this work. Table 6 below gives a summary of the major differences between positivism and interpretivism in terms of ontology, epistemology, axiology, methodology, and methods of data collection.

Table 4: Differences between research philosophies

| Research philosophy | Positivist                     | Interpretivist                          |
|---------------------|--------------------------------|---|
| Ontology            | Single reality                 | No single reality                       |
| Axiology            | Unbiased                       | Biased                                  |
| Methodology         | Quantitative                   | Qualitative                             |
| Data collection     | Experiments<br>Tests<br>scales | Interviews<br>Observations<br>Documents |

Potrac et al. (2014)

As per table 6 above, from the axiological point of view, interpretivism as a research philosophy is partisan, as the data, and actual results depend on what the researcher observes, hence given forth to partiality. As noted by Potrac et al. (2014), interpretivism as a research philosophy is mostly applied in the collection and analysis of qualitative data. The post-modernism philosophy,

on the other hand, is a complete rejection of positivism philosophy. This philosophy emphasizes the need to acquire know-how from the language and mainly finds its application in qualitative research. Realism, as research, a philosophy accounts for the nature of the scientific practice. It is in total agreement with positivism in the manner that the research should work independently from external reality. This affirms that reality can be achieved by applying relevant methods. Realism philosophy aims to apply the most relevant and suitable method for conducting the study. Pragmatism is suitable for studies that combine qualitative and quantitative methods (Saunders, 2009). The motive of this study was to determine the impact of innovative mCRM processes on customer satisfaction based on Samsung in Dubai, UAE. Since this study is based on a quantitative research design, a positivist philosophy is appropriate for the current study.

### **3.3 Study Context**

The current study is confined to the UAE and Dubai in particular. The country was selected as the study area due to the increasing concentration of international telecom companies such as Apple and Samsung and the advanced ownership and usage of mobile phones in the region. It is estimated that close to 70% of firms operating in the UAE are foreign companies that have raised competition levels (Hair et al., 2015).

The study was restricted to Dubai due to limitation of time and the ease of access to Samsung customers as the city has the greatest number of mobile phone users in the UAE, Thus the UAE provides an effective location for the research



### **3.4 Research Design and Methods**

Research design is a blueprint or the roadmap that is followed in executing a study. It is also described as a clear structure and framework of methods and techniques selected to combine different aspects of research in a structured and logical manner for efficient solving a research problem. Research design shows how a study is conducted in technical terms. The research questions are assessed to determine the most relevant design applicable to the study. The descriptive research design adopts methods and techniques that can describe study phenomenon (Saunders, Lewis, and Thornhill, 2016). For studies aimed at exploring a topic, methods and techniques that can explain a study phenomenon are used while analytical research involves the selection of methods and techniques that determine the relationship or association between different variables in a study. Generally, exploratory applies to the initial study in theoretical or hypothetical ideas, whereas descriptive research provides more details of a study. Explanatory or correlation research seeks to link ideas to provide a better understanding of cause and effect (Creswell, 2014). Different theories and concepts on the effects of mCRM on customer satisfaction have been explored in different studies. However, the correlation of various processes of mCRM with customer satisfaction has yet to be fully studied. As the current study sought to assess the impact of mCRM innovative processes on customer satisfaction, an analytical/ correlational research design is the most relevant and is the selected design.

In line with Creswell (2014) observations, methods, and techniques that facilitate the collection and analysis of data that can aid correlation analysis were adopted in carrying out the study. There are two basic methods of research; quantitative and qualitative methods. The quantitative method is conducted in a structured format to generate objective and conclusive findings. In quantitative

research, numerical data that can be subjected to quantitative statistical analysis are gathered. A qualitative study, on the other hand, collects non-numerical data for analysis. The current study adopted a quantitative method to facilitate the collection of numeral data as required for measuring the relationship between mCRM and customer satisfaction (Zohrabi, 2013).

### **3.5 Research Strategy**

Research strategies refer to the various approaches used to collect data for a study. The choice research strategy to be adopted depends on various factors, including the type of data to be collected (qualitative or quantitative), the sources of data (secondary or primary), and methods of data analysis, among others. There is no one best strategy, but each strategy is relevant in certain studies. Creswell (2014) identifies qualitative data collection strategies as groundedtheory, case study, ethnography, case study, action research, and archival methods. The quantitative data collection strategies are surveys, experimental, and archival records (Creswell, 2014). Since the current study was based on quantitative data, an online survey design was selected as the research strategy to obtain data on the variables of mCRM and customer satisfaction. In this study, an online survey was adopted for various reasons. Some of these include the desire to have a high level of coverage, minimize research cost, and ease the process of data gathering.

According to Zohrabi (2013) online surveys can have a good response rate owing to their capacity to provide the respondents with a high degree of convenience in terms of preferences, time, and pace. The online survey was chosen over face to face and telephone surveys because it is cost and time effective by taking advantage of developments in the area of information and communication technology. The survey strategy is ideal for collecting a large amount of data from study

participants using tools such as structured questionnaires. It is also used to reach a large number of participants than face-to-face and telephone surveys and is also more widespread than traditional face-to-face and telephone survey methods (Creswell, 2014). It uses branching technologies and computational logic to gain a high level of accuracy in gathered data than traditional methods. Most fundamentally, the results from online surveys are collected in real-time and subjected to statistical analysis. This strategy collected data on the feedback of respondents regarding their perceptions of innovative mCRM as relating to customer satisfaction in Dubai, UAE.

### **3.6 Population and Sampling**

The population of a study is a group of people, items, elements, objects, and institutions with common attributes and of interest to the study while. A sample in research is simply a subset of the population enlisted for the study (Bryman, 2012). It is practically cumbersome to conduct a study of an entire population because it is usually too large. Therefore, a researcher selects a representative sample from a population for a study using the relevant sampling technique (Creswell, 2014). The results based on the sample are generalized to the study population as a representative of the population. The sampling techniques adopted in social research include probability based, simple random sampling, cluster sampling, systematic sampling, and stratified random sampling method (Bryman, 2012).

In a simple random sampling technique, the researcher selects a sample using a random method, such as flipping a coin or using a computer program to generate a sample from the population. However, simple random sampling is only suitable for a small and homogenous population.

In systematic sampling, the target population is ordered in a sequence and the subjects selected at regular intervals. In ordered population, an  $n$ th subject is chosen for inclusion into the sample

(Babbie, 2015). For example, the ordering can take the form of alphabet or size or any other attributes. This technique allows the selection of evenly spread samples from the population and is suitable for relatively large population.

Another technique is stratified sampling, which involves splitting the population of interest into a mutually exclusive group or strata. This method involves two key steps; the first step is to split the population into strata based on attributes such as geographical location, gender, and so forth. The second step involves applying simple random sampling to select the sample from each stratum. A cluster random sampling technique involves random selection of study subjects from a population that is too large for simple random sampling. Bryman (2015) notes that cluster sampling method is often suitable for a large population. Multi-stage random sampling combines various techniques such as cluster and stratified random sampling in the selection of samples. Therefore, in probability sampling, the subjects or participants are randomly selected from a population. Hence, each unit of the population has an equal probability of selection to participate in the study.

In non-probability sampling methods, the selection of participants or subjects of study is based on the subjective judgment of the researcher as opposed to random selection. The non-probability sampling techniques include purposive sampling, convenient sampling, quota sampling, and snowball sampling methods (Etikan, Musa, & Alkassim, 2016). These techniques are more subject to bias than probability sampling because not all members of the target population have an equal probability of being selected to participate in the study. Furthermore, non-probability sampling is more relevant in exploratory research such as qualitative research. Babbie (2015) posits that these techniques depend greatly on the expertise of the researcher and can produce variable results, therefore, the current research did not adopt non-probability sampling methods.

The current study adopted a systematic random sampling to select customers of mobile services.

The number of customers is relatively large hence the use of a systematic sampling method as opposed to simple random sampling (Creswell, 2014). The method was chosen as it is relatively simple and can be completed in a short time frame. Also, it is suitable when provided with a database of customers which was provided to the researcher by Samsung. The sampling framework comprised of people with Samsung Smartphones in Dubai, and this was based on data from SamsungDubai. A list of people who have purchased Samsung smartphone was used as a sampling frame. This provided over 100,000 customers for the study, and therefore, it is plausible to assert that it provides a sufficient number of studies. Existing customers of Samsung smartphones will have had access to mCRM processes provided by Samsung and thus constitute a suitable target for feedback on whether these processes effect the satisfaction of customers of Samsung. Sample size was determined based on three factors; the margin of error, level of certainty that attributes of data represent the population, and type of statistical analysis (Yamane, 1967). Therefore, the sample size is calculated as  $n = N / (1 + Ne^2)$  where  $n$  = Number of samples,  $N$  = Total population and  $e$  = Margin of Error (Yamane, 1967). Applying the formula and using a 95% confidence level a total of 250 customers were recruited to participate in the survey.

### **3.7 Time Horizon**

A study can adopt a cross-sectional or longitudinal time horizon. Longitudinal studies are conducted over an extended time, frame while a cross-sectional study is restricted to a specific time frame. In longitudinal research, respondents are examined over time to assess relationships between variables, whereas cross-sectional research is focused on relatively short time horizons (Creswell, 2014). The current research adopted a cross-sectional horizon by gathering data from customers over a single point in time. This approach was appropriate given the limited time for the

research and the fact that there was no need to observe longer term trends as that was not an objective of the research. This study aimed to assess the impact of innovative mCRM in impacting customer satisfaction in the current time period and hence cross-sectional research was suitable and selected.

## **3.8 Data Collection and Analysis**

### **3.8.1 The Choice of Data Collection Tools**

The questionnaire tool (a self-administered online survey) was used to collect quantitative data from sample customers of Samsung, Dubai, UAE. This data collection method was adopted for various reasons. An online self-administered survey, makes it possible to collect data in a relatively short time that is suitable for inferential analysis, required in this research to measure the relationship between mCRM and customer satisfaction. An online survey is an effective method to collect quantitative feedback from respondents to determine the relationship between mCRM and customer satisfaction. This is because participants record their level of agreement with given statements on a Likert scale 1- 5 where results are recorded and ready for analysis (McCusker and Gunaydin, 2015). Creswell (2014) asserted that online surveys provide a researcher with the opportunity to collect information from a relatively large number of respondents compared to other methods such as telephone or face-to-face surveys that require more time. Another advantage of using the online survey method is that the process is objective and therefore the occurrence of bias is minimized that can occur in interviews and other data collection techniques (Endacott, Benbenishty, & Seha, 2010). The online survey collected data on demographic attributes of respondents and customer feedback on the effect of innovative mCRM on customer satisfaction. The sets of Likert scale statements were developed by adapting previously validated statements

from prior studies to suit the context (mobile phones) of this research. As per Gobler (2003) using previously validated statements enhances the quality of research. A pilot study was also carried out to test for adequate validity and reliability of the data collection tool. The pilot tested survey was then used to collect data from participants who scored various statements on innovative processes of mCRM (customization, interactivity, convenience, service, and security) and level of satisfaction.

### 3.8.2 Questionnaire Design

A search of the literature and available databases revealed that there is no universally accepted research instrument for testing and measuring innovative mCRM and customer satisfaction, in particular as relating to the mobile phone market. Researchers have constructed and used different instruments in different contexts to fulfill the needs of their studies. Rather than constructing an entirely new research instrument, the survey for this research was developed from an item pool, generated from previous studies (valid and reliable) with adaptations to better suit mCRM in the context of mobile phones. Questions focused on the innovative processes of mCRM that could impact customer satisfaction. The questionnaire was divided into six sections, each with five sets of statements. These included interactivity, service, security, convenience, customization, and customer satisfaction sections. Demographic information of participants such as age, marital status, and occupation were recorded in a separate section in the questionnaire. The research instrument is shown in table 5 below.

Table 5: Research instrument

| mCRM Factor | Code | Statement                                      | Source                |
|-------------|------|--|-----------------------|
|             | IN01 | I can easily reach human-based support service | Sofi & Hakim, 2018    |
|             | IN02 | Feedback from the system is comprehensive      | Sivaraks et al., 2011 |

|                       |      |   |                           |
|-----------------------|------|---|---------------------------|
| Interactivity         | IN03 | Clear answers/instructions are given to customers               | Sivaraks et al., 2011     |
|                       | IN04 | Human interactions are consistently courteous                   | Molina et al., 2007       |
|                       | IN05 | Difficult questions are dealt with adequately                   | Ho & Lee, 2007            |
| Service               | SE01 | The system does not normally freeze or crash                    | Hong-kit Yim et al., 2004 |
|                       | SE02 | Up-to-date information is provided by the system                | Sivaraks et al., 2011     |
|                       | SE03 | The system promptly resolves customer problems                  | Ho & Lee, 2007            |
|                       | SE04 | System services are consistent and reliable                     | Molina et al., 2007.      |
|                       | SE05 | A wide variety of issues are dealt with by the system           | Ho & Lee, 2007            |
| Security              | SC1  | Adequate security features are provided for customers           | Ho & Lee, 2007            |
|                       | SC2  | I feel safe and secure using the system services                | Jun et al., 2004          |
|                       | SC3  | The system is not intrusive in seeking information              | Hong-kit Yim et al., 2004 |
|                       | SC4  | Security updates are provided regularly                         | Yang et al., 2005.        |
|                       | SC5  | Customers can easily follow system protocols                    | Saradhy et al., 2014      |
| Convenience           | CO1  | Using the system enables me to save time                        | Zavareh et al., 2012      |
|                       | CO2  | I can easily find what I need on the system                     | Sofi & Hakim, 2018        |
|                       | CO3  | Using the system is better than visiting the branch             | Loiacono et al., 2002     |
|                       | CO4  | The system is available when needed                             | Sivaraks et al., 2011     |
|                       | CO5  | Overall, I believe that the system is easy to use.              | Loiacono et al., 2002     |
| Customization         | CU1  | Individualized attention is provided to customers               | Sivaraks et al., 2011     |
|                       | CU2  | There are special services for the older and disabled           | Molina et al., 2007       |
|                       | CU3  | The system automatically records my preferences                 | Hong-kit Yim et al., 2004 |
|                       | CU4  | Features are easily customizable on the system                  | Valmohammadi, 2017        |
|                       | CU5  | Overall, it is easy to customize the service for my needs       | Molina et al., 2007       |
| Customer Satisfaction | CS1  | My expectations are met by the service                          | Loiacono et al., 2002     |
|                       | CS2  | My expectations are exceeded by the service                     | Loiacono et al., 2002     |
|                       | CS3  | I am more satisfied with Samsung phones because of the services | Chen et al., 2009         |
|                       | CS4  | I am satisfied with the level of human based support            | El Essawi & El Aziz, 2012 |
|                       | CS5  | Overall, I am satisfied with the service and its features       | Yang et al., 2005         |



### 3.8.3 Data Analysis

Collected data was analysed using quantitative statistical analysis using the software application SPSS version 25. Descriptive data analysis was used to describe the characteristics of participants in terms of demographic factors. Inferential statistical tests used in the study included correlation and regression analysis. Correlation was used to test for associations between variables. Regression analysis was used to test the hypotheses, and a significance test was set at a 0.5% margin of error. A level of significance greater than 0.05 meant that the variables under analysis were not statistically significant and values less than 0.05 meant that variables were not significantly correlated. Regression analysis was used to analyse the relationship between independent variables (innovative mCRM processes) and dependent variable (customer satisfaction). The examination of the data followed the research objectives in a systematic manner. Correlation and multiple regression, were conducted to determine the relationship between innovative mCRM processes and customer satisfaction. A model to examine the data took the format of  $Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \epsilon$ . Where Y is the dependent variable representing customer satisfaction and  $\beta_0$ -  $\beta_5$  represent the coefficients, X1, X2, X3, X4, and X5 are the innovative mCRM processes and  $\epsilon$  is the margin of error.

### **3.8.4 Validity and reliability of the Research Instrument**

The validity of a research instrument is the degree to which it measures what is supposed to be measured. The scores and conclusions obtained from data gathered using valid instruments are actual representations of the study phenomenon (Johnson, 2007). In this study, the validity of the research instrument was enhanced by using scale items from prior peer reviewed studies in a range of market and geographic contexts (Chen et al., 2009 ; El Essawi & El Aziz, 2012 ; Ho & Lee, 2007 ; Hong-kit Yim et al., 2004 ; Jun et al., 2004 ; Loiacono et al., 2002 ; Molina et al., 2007 ; Saradhy et al.2014 ; Sivaraks et al., 2011 ; Sofi & Hakim, 2018 ; Valmohammadi, 2017 ; Yang et al., 2005; Zavareh et al., 2012). Because the prior scale items were modified to better suit the needs of this research, a pilot study of 20 respondents was carried out before the actual research to ensure questionnaire and process adequacy. A research instrument is deemed adequate when it reaches sufficient validity and reliability (Johnson, 2007). The reliability of an instruments of research is its ability to generate consistent results in a repeated study. The reliability test of Cronbach alpha was used to test the reliability of the research instrument while structured equation modeling was used to test for adequate validity by testing for convergent and divergent validity (Hair, 2015).To achieve the required standards of reliability and validity, some items on the instrument were reworded to improve validity. For example, statements CS3 and CA2 were changed for clarity by mentioning Samsung rather than using generic statements. It was important to carry out a pilot study to ensure the processes of collecting data were efficient and adequate to derive meaningful conclusions and findings. Accordingly, the research instrument was found to be reliable and valid to collect the required data and there were no issues identified by respondents in terms of engaging with the online survey process.

### **3.9 Ethical Considerations**

This study was carried out guided by high moral principles to shield the respondents from any likely injury either physically, psychologically, financially, or to their character resulting from the research. In this study, the researcher sought and obtained permission from the University's Ethics Committee before embarking on the study. Additionally, the researcher was careful and made sure that the participants in the study were made aware of the motive and circumstances of the study and participating in the study was out of one's own volition and not compulsory. The participants in the research were also made aware of their right to withdraw from the study if they deem necessary without giving reasons for doing so. An official introductory letter was done pointing out the fact that the researcher was a university student and that all the information and data that was to be gathered was only for scholarly purposes. An official acceptance from all the participants to take part in the study was sought, signed, and documented. High levels of privacy, confidentiality, and anonymity for all the participants were maintained during the study with no third-party disclosures about the identity in terms of name or age of the participants. The participants were also informed of how the information gathered would be stored, its accessibility and its intended use.

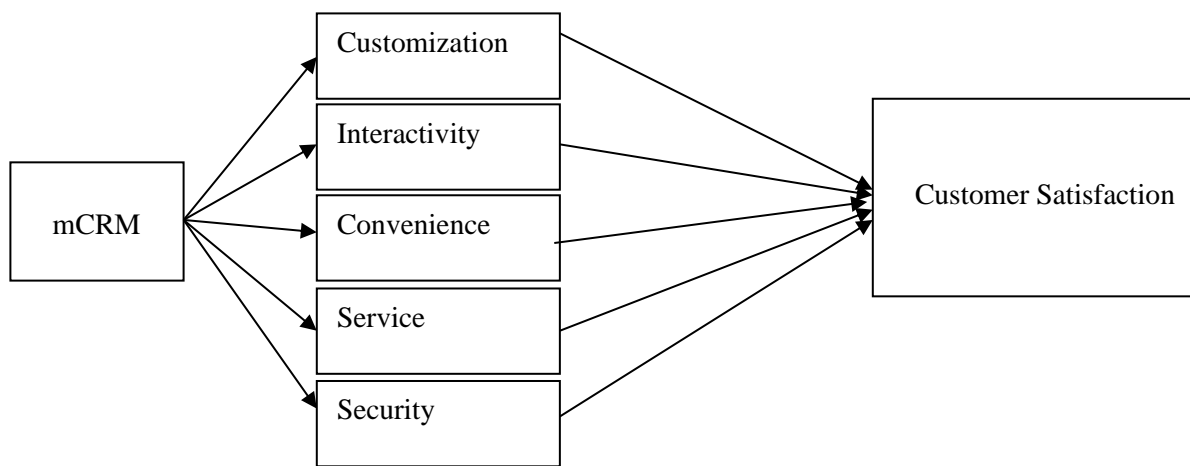
## CHAPTER 4: ANALYSIS AND FINDINGS

### 4.1 Theoretical framework

An analysis and synthesis of the literature on the effect of mCRM and customer satisfaction indicates mixed conclusions on the relationship between the independent and dependent variables where no studies to date have established the relationship in the mobile handset market in Dubai, UAE. Some studies found a positive and significant impacts of mCRM on consumer satisfaction (Alnawas & Aburub, 2016; Alolayan & Al-Kaabi, 2020; Deng et al.,2010;Grandhi & Chugh, 2012; Hsu & Lin.,2008; Ianessa & Chiliya,2014; Kumar & Pansari,2016; Martín et al., 2015; Mastorakis et al.,2015; Sunny & Abolaji, 2015; Talet et al.,2011;Valsecchiet et al.,2007). Other studies did not conclude a positive and significant impact of mCRM on customer satisfaction of customers (Alim &Ouzel 2014; Awasthi & Sangle,2013;Becker et al, 2009; Boris 2013; Chan, 2012; Elmuti et al, 2009; French et al., 2011; Rajini & Sangamaheswary,2016;Saleem &Rashid,2011;Silberer & Schulz, 2012; Singh, 2011;Suntornpithug & Suntornpithug, 2012;Vorley & Budd, 2013; Zengh, 2011).Further studies are inconclusive as to whether mCRM significantly effects satisfaction of customers (Camponovo, 2005; Dovalienea et al., 2015; Dursun & Çelik, 2017;Ndubisi, Kok et al., 2007; Liu et al 2020; Payne & Frow, 2005; Smith, 2007; Viljoen et al., 2005). Research thus provides mixed findings on whether mCRM positively and significantly impacts the satisfaction of customers. It is apparent that the relationship between mCRM and customer satisfaction remains uncertain as it varies according to different market and situational factors. Thus, a knowledge gap emerges where academics and practitioners are calling for more research (Awasthi & Sangle, 2012; Grandhi & Chugh, 2012; Mastorakis et al., 2015). In response, this study aimed to address the knowledge gap specifically in the case of the effect of

mCRM on customer satisfaction in the mobile phone sector for Samsung, Dubai, UAE. Addressing the knowledge gap was achieved by testing hypotheses about the relationship between mCRM as measured by the innovative processes of customization, interactivity, convenience service and security in relation to customer satisfaction as per the theoretical framework in figure 2 below.

Figure 2: The Impact of mCRM on Customer Satisfaction



Author developed, 2022

## 4.2 Research Hypothesis

H1: mCRM customization positively and significantly impacts customer satisfaction.

H2: mCRM interactivity positively and significantly impacts customer satisfaction.

H3: mCRM convenience positively and significantly impacts customer satisfaction.

H4: mCRM service positively and significantly impacts customer satisfaction.

H5: mCRM security positively and significantly impacts customer satisfaction.

### 4.3 Reliability Test

Before carrying out the main research, it was important to test the data collection instrument for adequate reliability which was done via a pilot study with 20 respondents providing feedback. Table 8 shows Cronbach's alpha test results of internal reliability for the measurement scales for each research item variable service, interactivity, convenience, customization, security, and customer satisfaction.

Table 6: Cronbach's alpha

| Variable              | No. of Items | Cronbach's alpha |
|-----------------------|--------------|------------------|
| Service               | 5            | 0.76             |
| Interactivity         | 5            | 0.91             |
| Convenience           | 5            | 0.73             |
| Customization         | 5            | 0.84             |
| Security              | 5            | 0.50             |
| Customer Satisfaction | 5            | 0.72             |
| Mean value            | 5            | 0.75             |

The results indicate that all scales used to measure the variables of study except security had sufficient internal consistency. Accordingly, the interactivity component of mCRM had the most reliable scales/items with 0.91 Cronbach's alpha, followed by customization at 0.84 while customization and convenience were .84 and .73, respectively. However, measures of security processes did not have adequate internal consistency hence the scale was not reliable. However, replacing one scale item, increased the alpha value to 0.72, hence making it a reliable measure. Overall, all the variables used to examine the effects of mCRM on customer satisfaction were reliable with a mean of 0.75 which is higher than the recommended 0.70 (Creswell, 2014). Thus, the research instrument items reached the required threshold of Cronbach's alpha for reliability.

## **Validity test**

The research instrument was subjected to a pilot study of 20 respondents to ensure an efficient collection of data process and the validity of the instrument. The data collected during the pilot study was used for factor analysis to confirm that the data is in line with the expected factor structure. The validity of the different constructs that were used in the survey instrument was established by analysing for convergent and divergent validity of the constructs based on factor analysis in appendix B.

### *Convergent Validity*

In order to confirm that all the items of a construct are related to the construct, convergent validity is analyzed for each construct. The analysis results indicate that the average variance extracted (AVE) is greater than 0.50 for each construct, which indicates that the items of the same construct are correlated. Further, it is observed that the items of the same construct have higher factor loading on the underlying construct compared to their loadings on the other underlying constructs. Thus, adequate convergent validity was concluded.

### *Divergent Validity*

Divergent or Discriminant validity tests whether concepts or measurements that are supposed to be unrelated are, in fact, unrelated. The results are based on the calculations of average variance extracted (AVE), maximum shared variance (MSV), average shared variance (ASV) and the correlation between the construct score (Creswell, 2009) It can be observed that the square root of AVE, for each construct, is higher than the correlation of the construct with other items, and AVE for each construct is higher than the MSV and ASV ( $MSV < AVE$ ,  $ASV < AVE$ ). Thus, adequate divergent validity was concluded.

Table 7: Convergent and divergent validity

|                       | AVE  | MSV  | ASV  | Convenience  | Customer Satisfaction | Customization | Interactivity | Security     | Service      |
|-----------------------|------|------|------|--------------|-----------------------|---------------|---------------|--------------|--------------|
| Convenience           | 0.67 | 0.13 | 0.05 | <b>0.818</b> | 0.00                  | -0.25         | -0.36         | 0.12         | -0.29        |
| Customer Satisfaction | 0.73 | 0.08 | 0.02 | 0.00         | <b>0.852</b>          | 0.08          | 0.20          | 0.29         | 0.08         |
| Customization         | 0.62 | 0.16 | 0.04 | -0.25        | 0.08                  | <b>0.788</b>  | 0.40          | 0.01         | 0.05         |
| Interactivity         | 0.56 | 0.16 | 0.09 | -0.36        | 0.20                  | 0.40          | <b>0.747</b>  | -0.25        | -0.40        |
| Security              | 0.56 | 0.08 | 0.03 | 0.12         | 0.29                  | 0.01          | -0.25         | <b>0.750</b> | 0.14         |
| Service               | 0.68 | 0.16 | 0.05 | -0.29        | 0.08                  | 0.05          | -0.40         | 0.14         | <b>0.824</b> |

#### 4.4 Normality Testing

Data normality is an assumption of parametric methods such as regression and correlation analysis. Testing for data normality was done using Shapiro Wilk test which applies to small data between 50 and 2,000 respondents (Albers & Lakens, 2018). The study variables with a p-value greater than 0.05 are said to have a normal distribution whereas those with a p-value less than 0.05 do not have a normal distribution. The results indicate that all variables in the study had a normal distribution and hence did not violate normality assumption as shown in table 8 below.

Table 8: Testing normality of research data

| Variable              | Statistics | d.f | Sig.  |
|-----------------------|------------|-----|-------|
| Service quality       | 0.158      | 5   | 0.267 |
| Interactivity         | 0.563      | 5   | 0.519 |
| Convenience           | 0.257      | 5   | 0.434 |
| Customization         | 0.694      | 5   | 0.247 |
| Security              | -0.175     | 5   | 0.558 |
| Customer Satisfaction | 0.164      | 5   | 0.269 |



## 4.5 Demographic Variables

The major demographic attributes of the 250 respondents (260 responses were received with 10 incomplete submissions) indicate that males were more than females at 54 and 46 percent respectively. Age-wise, the results suggest that Samsung customers are middle-aged adults concentrated in the 26-35 and 36-45 age brackets with 27 and 23 percent, respectively. The least number of customers were those aged above 55 years with 14% representation in the survey as participants. Concerning marital status, the results indicate that most customers are married with 47 percent representation in the survey followed by unmarried singles with 30% representation. The least represented group was widowed at 7 percent, while separated or divorced were 16 percent in the survey. Education-wise, the primary level had the least representation, and this is proportional to their representation in the general population. However, college graduates had the most representation, accounting for 49% followed by postgraduate and high school graduates with 25 and 23 percent, respectively. Regarding the occupational status of Samsung customers, the formal sectors account for the majority of Samsung customers while others had the least representation in the survey with just 8 percent. Finally, those in the informal sector and those owning business accounts for 31 and 26 percent of Samsung customers respectively. The summarized demographic results are shown in Table 9 below.

Table 9: Analysis of Demographic profile of respondents

| Variable | Item | % |
|----------|------|---|
|----------|------|---|

|                |                    |    |
|----------------|--------------------|----|
| Gender         | Male               | 54 |
|                | Female             | 46 |
| Age bracket    | 15-25              | 19 |
|                | 26-35              | 27 |
|                | 36-45              | 23 |
|                | 46-55              | 17 |
|                | Over 55            | 14 |
| Marital Status | Single             | 30 |
|                | Married            | 47 |
|                | Widowed            | 7  |
|                | Separated/Divorced | 16 |
| Education      | Primary level      | 3  |
|                | High school        | 23 |
|                | College/University | 49 |
|                | Post-graduate      | 25 |
| Occupation     | Formal             | 35 |
|                | Informal           | 31 |
|                | Own business       | 26 |
|                | Others             | 8  |

## 4.6 Inferential Analysis

### 4.6.1 Multicollinearity

In inferential analysis it is important to ensure that independent variables are not highly correlated as that can lead to unreliable data analysis results (Senaviratna, & Cooray, 2019).

Multicollinearity is measured by the amount of the variance inflation factor (VIF) and its reciprocal the tolerance value. The threshold tolerance value is that it should not be lower than 0.25 and VIF figures should not be above 3.3, as that would indicate a model contaminated by common method bias (Wisniewski, 2016).

All the items met the threshold levels of tolerance and VIF thus the model can be considered free

of common method bias as show in table 10 below.

Table 10: Multicollinearity

| Variable              | M<br>measure of collinearity |       |
|-----------------------|------------------------------|-------|
|                       | Tolerance                    | VIF   |
| Interactivity         | 0.532                        | 2.401 |
| Customization         | 0.661                        | 3.178 |
| Convenience           | 0.534                        | 2.444 |
| Data security         | 0.621                        | 1.789 |
| Service               | 0.815                        | 3.112 |
| Customer Satisfaction | 0.667                        | 2.987 |

#### 4.6.2 Correlation analysis

Correlation indicates association or a relationship among independent and dependent variables. It is typically measured by the Pearson coefficient of correlation ( $r$ ) on a scale from -1 to +1 where the closer the figure is to the 1 the stronger the relationship and where a figure of zero indicates no relationship (Bryman, 2015). The positive and negative signs indicate the direction of relationship which is positive or negative with the former meaning that an increase in one variable is associated with an increase in another variable and the latter meaning that an increase in one variable is associated with the decrease in another. Correlation is carried out at a level of significance ( $\alpha$ ) of 0.05 to guard against excessive randomness and an acceptable rate of error in measurement (Bryman, 2015). Correlation results indicate that all variables, interactivity, customization, service, convenience, and data security have a positive coefficient; hence they have a positive impact on customer satisfaction. Accordingly, customization and convenience have the highest coefficient at 0.77 and 0.65 respectively while interactivity, service quality, and data security have 0.69, 0.53, and 0.48 respectively. Items are shown in table 11 below.

Table 11: Correlation

| Independent variables | Dependent variable    | Pearson correlation r | Level of significance a |
|-----------------------|-----------------------|-----------------------|-------------------------|
| Interactivity         | Customer satisfaction | 0.69                  | 0.001                   |
| Customization         |                       | 0.77                  | 0.004                   |
| Convenience           |                       | 0.65                  | 0.002                   |
| Data security         |                       | 0.48                  | 0.003                   |
| Service quality       |                       | 0.53                  | 0.002                   |
| Independent variable  | Dependent variable    |                       |                         |

### 4.6.3 Regression Analysis

#### *Impact mCRM on Customers Satisfaction*

While correlation indicates the relationship between the variables, regression analysis indicates how one affects the other (Wisnewski, 2016). Multiple regression analysis was conducted with customization, service, convenience, security, and interactivity as the predictor variables of customer satisfaction. This was important is in assessing whether these variables through innovative mCRM are statistically significant in predicting customer satisfaction as the outcome variable of the study. The regression results in table 14 have R squared of 0.43%, implying the model as a whole account for 43% changes in customer satisfaction. This means that mCRM components contribute 43% to changes in customer satisfaction the regression model as a whole is significant as per table 12 below.

Table 12: Regression model

| Unstandardized Coefficients  |      |            | t    | Sig.  |
|--|------|------------|------|-------|
|  | B    | Std. Error |      |       |
| (Constant)   | 0.65 | 0.116      | 4.34 | 0.001 |
| Interactivity  | 1.15 | 0.659      | 1.92 | 0.008 |
| Customization  | 2.89 | 1.223      | 9.97 | 0.003 |
| Convenience  | 1.52 | 0.442      | 3.65 | 0.009 |
| Security   | 1.35 | 0.716      | 0.10 | 0.006 |
| Service  | 1.47 | 1.196      | 2.92 | 0.001 |
| F (5, 250) = 23.356; Sig (F) =.001; R Squared = .412; Adjusted R Square = .431 |      |            |      |       |
| Dependent Variable: Customer Satisfaction                                      |      |            |      |       |

The model in Table 14 indicates that all variables, interactivity, customization, service, convenience, and security have a positive coefficient; hence they have a positive impact on customer satisfaction. Customization and convenience have the highest coefficient at 2.891 and 1.525, respectively while service, data security and interactivity have 1.477, and 1.351 and 1.152 respectively. All the variables indicate significance as the p values accord with the required level of 0.05 indicating a 5% risk of concluding that a difference exists when there is no actual difference. These findings imply that mCRM can better improve customer satisfaction by fostering interactivity, customization, convenience, data security, and service. The model from the results is thus formulated as:  $Y = 0.657 + 1.152X_1 + 2.891X_2 + 1.525X_3 + 1.351X_4 + 1.477X_5 + e$ .

Y is customer satisfaction, X1, X2, X3, X4, X5 represent interactivity, customization, convenience, security, service, and 0.657 is the y-intercept. The y-intercept of 0.657 implies a change in customer satisfaction if all independent variables are zero. Similarly, when

security, service, customization, and convenience are held constant, there will be a change of 1.152 in customer satisfaction due to a unit change in interactivity. Accordingly, when all the other variables are held constant, a unit increase in customization leads to a 2.8 change in the level of customer satisfaction, while a unit change in convenience generates 1.525 changes in the level of customer satisfaction. Similarly, when interactivity, service quality, customization, and convenience are held constant, there will be a change of 1.351 in the level of customer satisfaction due to a unit increase in data security, while a unit increase in service quality will generate a change of 1.477 in the level of customer satisfaction.

#### 4.7 Hypothesis Testing

The test results lead to the acceptance or rejection of the null hypothesis that are shown in table 13 below

Table 13: Hypothesis testing

| Hypothesis   | Test results |
|--|--------------|
| H0 <sub>1</sub> : There is no significant relationship between mCRM interactivity and customer satisfaction. | Rejected     |
| H0 <sub>2</sub> : There is no significant relationship between mCRM customization and customer satisfaction. | Rejected     |
| H0 <sub>3</sub> : There is no significant relationship between mCRM convenience and customer satisfaction.   | Rejected     |
| H0 <sub>4</sub> : There is no significant relationship between mCRM security and customer satisfaction.      | Rejected     |
| H0 <sub>5</sub> : There is no significant relationship between mCRM service and customer satisfaction.       | Rejected     |

## **Research Findings**

This research had two key objectives, RO1: To identify and determine the key innovative mCRM processes through a review of the literature and RO2: To identify and measure the impact of innovative mCRM processes on customer satisfaction. The first objective required an extensive review of previous studies to extract the key innovative mCRM processes because a set of processes is not generally agreed upon as they remain embryonic and emergent. An analysis and synthesis of the literature identified determined the innovative mCRM processes as customization (Anyebe & Zubairu, 2019; Beshir et al., 2020; Bilgihan et al., 2016; Camponovo et al., 2005; Chen et al., 2017; Mastorakis et al., 2015; Sinisalo et al., 2015), interactivity (Chen; 2012; Mastorakis et al., 2015; Lee et al; 2015; Negahban et al., 2016; Rayed, 2019; Sinisalo et al., 2007), convenience (Awasthi & Sangle, 2013; Camponovo & Pigneur, 2005; Chikweche & Fletcher, 2013; Kim & Hyun, 2011; Rodriguez & Trainor, 2016; Singh & Chilya, 2014; Sinisalo et al., 2015), service (Grandhi & Chugh; 2012; Kim, Lee et al., 2015; Łukowski, 2017; Negahban et al., 2016; Quadros, 2022; Ranjan, et al., 2009), security (Doherty, 2021; Lillard & Al-Suqri, 2019; Ranjan & Bhatnagar, 2010; Strzelecki & Rizun, 2022; Varghese, 2022).

After identifying and determining the key innovative mCRM processes, this research set out to determine whether these processes impacted customer satisfaction in the context of Samsung, Dubai UAE. This was done using a quantitative design, particularly an online survey of customers. The results of the research revealed that all components mCRM make a significant and positive contribution to customer satisfaction. The study results have confirmed that interactivity, customization, convenience, data security, and service components of mCRM have a significant

contribution to the satisfaction of Samsung customers in the UAE mobile handset market. it was found that customization had the greatest impact on satisfaction followed by convenience, service, data security and interactivity.

Overall, innovative mCRM processes contributed forty three percent to customer satisfaction. The results of the research were not unexpected reflecting the high value that customers in the Emirates Place on the company's relationship management processes. However, the relatively high impact of mCRM processes and satisfaction was somewhat surprising given the myriad of other factors that influence customer satisfaction and reveals the importance of providing customer support to mobile phone consumers. Thus, it is important that companies such as Samsung pay attention to not just improving hardware (mobile phones) will software (mCRM) to provide a holistic approach to enhancing customer satisfaction going forward. Therefore, mCRM can be an important strategy for improving the satisfaction of Samsung customers in the market.

The findings of this research contradict other studies did not conclude a positive and significant impact of mCRM on customer satisfaction of customers because mCRM was not valued as much as other factors that contribute to satisfaction (Alim &Ouzel 2014; Awasthi & Sangle,2013;Becker et al, 2009; Boris 2013; Chan, 2012; Elmuti et al, 2009; French et al., 2011; Rajini & Sangamaheswary,2016;Saleem &Rashid,2011;Silberer & Schulz, 2012; Singh, 2011;Suntornpithug & Suntornpithug, 2012;Vorley & Budd, 2013; Zengh, 2011). It is not surprising that other studies have not found mCRM to be impactful on customer satisfaction as it is understandable that it may not be valued the same way in different contexts and situations. For example, a large-scale empirical study across different sectors in Germany concluded that acceptance of mCRM was relatively low and the reticence risk for mobile services should not be underestimated (Silberer & Schulz, 2012). The same conclusion was drawn in a study in the hospitality sector where customer reticence, perception of risk and a preference for traditional



CRM interactions led to a reluctance to embrace innovative mCRM processes (Chan, 2012). Similar findings were reached in a study of the Dutch mobile handset market where there was a low adopting rate by customers of mCRM not willing to use mobile applications for service support and interactions with sellers (Boris, 2013). In a UK study of the top eleven multimedia companies, it was concluded that mCRM cannot be relied upon as a means of improving customer satisfaction as its impact on customers is unlikely to be large enough to significantly raise satisfaction levels (Alim & Ouzel 2014). Saleem & Rashid (2011) concluded that dissatisfaction levels were relatively high in the mobile phone market in Pakistan because customers were concerned about issues of authenticity, reliability, and security of mCRM technology.

However, the findings of this research are similar to earlier research by Lee, Tsao, & Chang (2015) which concluded that mCRM tools provide the most efficient ways to improve customer satisfaction. Further to that, Arcand et al. (2017) also noted that mCRM tools are vital for enhancing customer experiences by availing diverse points of view to organizations. A study by Sampaio et al. (2017) also observed that increased adoption of mCRM mobile messaging creates a more personalized and unique communication with their clients, which in turn enhances their experiences. However, consistent with Bilgihan, Kandampully, and Zhang's (2016) findings, this is attained if an organization builds its mCRM systems to enhance customer satisfaction by customizing the firm's behaviours based on the information gathered through these systems about their customers. Deng et al.'s (2010) investigation into mobile instant messages (MIM) found that mCRM platform generates customer satisfaction. He further found that the mCRM had helped firms to enhance customer satisfaction levels by three percent and concluded that mCRM platforms, especially MIM's enhance customer satisfaction through improved trust levels among their clients. Therefore, as recommended by San-Martín et al., (2016), mCRM provides Samsung

with a platform for improving customer satisfaction through acquisition of customer-related information for designing suitable responses to customer desires. The findings of this study confirming that mCRM positively and significantly impacts customer satisfaction, therefore, differ from other studies where mCRM was not found to be as impactful but accord with other studies, thereby contributing to the literature on the topic.

### **Reflective Statement**

Completing the doctorate in business represents the greatest challenge that I have ever undertaken. Specifically, researching and writing the dissertation over a four-year period. It represents a milestone where there were many instances of success and many challenges that had to be overcome throughout the process. In terms of success, I was able to choose a current and important topic (mCRM) that is of interest to researchers and managers in terms of how it could contribute to customer satisfaction. Particularly, in the mobile phone market mCRM represents a strategy and the process that could be implemented at a relatively low cost compared to the large capital investments required to develop handsets where there is limited scope at the moment because of technology peak. Working for Samsung in a managerial capacity, presented me with a unique opportunity to investigate possibilities for developing mCRM as a competitive tool to enhance the satisfaction of our customers in Dubai, the UAE.

Working for Samsung allowed me access to the customer database for the online survey to support representativeness in the research. Because I found the topic interesting and practically important, I was able to remain motivated and improve my academic skills throughout the doctrine process. Specifically, I improved my ability to locate relevant sources, read journals for meaning, take notes and classify information for analysis. This was particularly important because there is no universally

agreed set of criteria to describe or measure mCRM and extensive research was required to determine the most important processes.

As there are relatively limited studies on mCRM, it was difficult to find adequate coverage of the topic to extract the key innovative components. However, with persistence, I was able to locate sufficient information to make a classification. For me, this was important, not just for narrowing the focus of my research but for identifying the mCRM processes that are likely to be beneficial in practice. As I am in a managerial position with Samsung in the UAE, I am very interested in the potential of mCRM for the company and I am in a position to advance its implementation in the region. As such, it was necessary to identify the key innovative elements of mCRM to concentrate on for the research and for focus at the company. By extracting five key innovative mCRM processes from the literature, I was able to determine that they were all impactful on customer satisfaction. While this adds to the literature on the topic, it is also of practical use to me by providing a framework that can be developed to enhance mCRM at Samsung in the Emirates.

However, there were many challenges throughout my doctor journey. Perhaps the greatest challenge was in getting adequate time for the research by balancing work and family life. Because I did not get any study leave from my employer, I had to make the most out of my free time to complete the doctorate. This was not easy and was not always possible as many unforeseen events gave me less time for research. Another challenge was refreshing and improving my knowledge of correlation and regression analysis for the inferential statistics part of the dissertation. I also had to spend extra time learning the techniques required for reliability and validity testing for the pilot study. Finally, writing extensive pieces of work was a challenge in terms of maintaining the quality and consistency required.

Building on success and overcoming challenges helped me develop academically, personally, and professionally. Academically, I have improved my research, analysis and writing skills to the point where I have enough confidence to start working towards developing some journal articles in the near future. I am looking forward to contributing to the body of research emerging from the Middle East, an area where research has been lagging behind the more developed countries. Personally, I have learned the importance of patience, persistence and listening to others, specifically my supervisor who provided insightful and valuable feedback along the journey. Having to balance studies, career and family life has given me a new perspective where I can make better use of time towards the things that are important and this is a good outcome. Finally, at the professional level, I have become better organized, more productive, and confident. As a direct result of learning from the doctorate process, I am looking forward developing mCRM at Samsung to better satisfy our valuable customers, a worthy and important goal.

## CHAPTER 5: CONCLUSION AND IMPLICATIONS

### 5.1 Research Summary

This research study was conducted to examine the impact of innovative mCRM processes on customer satisfaction. It aimed at determining whether or not the adoption of mCRM yields satisfaction for customers of mobile phone services of Samsung, in Dubai, the UAE. The use of mCRM is deemed one of the main drivers in the success of the customer relationship management activities that are adopted by a business (Bilgihan, Kandampully, and Zhang, 2016). On this basis, the problem that was researched was whether or not mCRM creates satisfaction for customers of mobile phone services in the context of the UAE mobile handset market. As technology homogenizes and competition increases in the mobile phone sector, it becomes important for companies to seek new ways of gaining advantage and mCRM presents such a possibility. Prior studies on mCRM fail to provide conclusive evidence that mCRM creates satisfaction. On this basis, this research aimed at filling this literature gap. Findings from various studies come to different conclusions where some confirm a mCRM- satisfaction relationship and others do not conclude such a relationship. A range of studies in different sectors and contexts found notable impacts of mCRM on the levels of consumer satisfaction. For instance, a study of the strategic value of mCRM applications by Grandhi and Chugh (2012) in the satellite-based television sector in Australia concluded that mCRM helps to improve customer satisfaction through data that provides better understanding and fulfilment of customer needs for a more loyal customer base. In contrast, Ianessa and Chiliya (2014) concluded

that mCRM is beneficial in South Africa as it enhances the levels of customer satisfaction by enabling the provision of efficient mobile marketing communication services through better customer retention rates. In particular, the main objectives of this study were to identify and determine the key components of innovative mCRM through a literature review. Also, the research aimed at identifying and measuring the impact of the innovative components of mCRM on customer satisfaction. Reliance on improving product functionality, design, and marketing support along with better pricing and advertising may not be sufficient for companies in the mobile handset sector to gain and sustain advantage. On this ground, the research aimed at identifying and measuring the impact of components of mCRM on customer satisfaction

To achieve the objective of this study, a quantitative approach to research was adopted whereby data were gathered to answer the research questions. This study was based on the hypothesis that mCRM positively and significantly impacts customer satisfaction. Notably, the hypothesis was closely linked with the theoretical framework selected for this study. The framework was derived from the analysis and synthesis of literature related to innovative mCRM processes and customer satisfaction variables to produce a comprehensive theoretical model. The relationship between and among these variables produces a model that can be used to investigate the influences that innovative mCRM exerts on customer satisfaction. The framework encompassed the components of security, interactivity, service, customization, and convenience and helps understand how each mCRM component influences customer satisfaction.

An online self-administered Likert type survey was relevant and implemented in examining the linkages between different components of mCRM on customer satisfaction and competitiveness. Results of the research indicated that all the components of mCRM positively and significantly impacted customer satisfaction. Specifically, mCRM contributed forty three percent customer

satisfaction with customization providing the greatest impact followed by convenience, service, security, and interactivity.

## **5.2 Key Research Findings**

***RQ1:** What are the key components of innovative mCRM processes?*

The first objective of the study was to identify and determine key innovative components of mCRM which was achieved through an extensive review of previous studies. A review of the various studies revealed that the most commonly identified innovative mCRM processes were; customization (Anyebe & Zubairu, 2019; Beshir et al., 2020; Bilgihan et al., 2016; Camponovo et al., 2005; Chen et al., 2017; Mastorakis et al., 2015; Sinisalo et al., 2015), interactivity (Chen; 2012; Mastorakis et al., 2015; Lee et al; 2015; Negahban et al., 2016; Rayed, 2019; Sinisalo et al., 2007), convenience (Awasthi & Sangle, 2013; Camponovo & Pigneur, 2005; Chikweche & Fletcher, 2013; Kim & Hyun, 2011; Rodriguez & Trainor, 2016; Singh & Chiliya, 2014; Sinisalo et al., 2015), service (Grandhi & Chugh; 2012; Kim, Lee et al., 2015; Łukowski, 2017; Negahban et al., 2016; Quadros, 2022; Ranjan, et al., 2009), security (Doherty, 2021; Lillard & Al-Suqri, 2019; Ranjan & Bhatnagar, 2010; Strzelecki & Rizun, 2022; Varghese, 2022). Therefore, customization, convenience, service, security, and interactivity were found to be the key innovative mCRM processes.

***RQ2:** Does mCRM impact customer satisfaction positively and significantly?*

It was found that mCRM positively and significantly impacted customer satisfaction, specifically it was found to contribute forty three percent to satisfaction. In terms of the processes of innovative mCRM (customization, interactivity, convenience, service and

security) the study found that all the key innovative mCRM processes positively and significantly impacted customer satisfaction. It was found that customization had the greatest impact on satisfaction, followed by convenience, service, security, and interactivity. Therefore, this research found that mCRM positively and significantly contributed to customer satisfaction in the context of multiform consumers of Samsung in Dubai, the UAE. This finding is in accordance with prior which concludes that the innovative processes of mCRM influence customer satisfaction through the perceived benefits provided where satisfaction is a cost/benefit evaluation of products and services by consumers (Alnawas & Aburub, 2016; Lee et al., 2015; Bilgihan, Kandampully & Zhang, 2016; Morgeson et al., 2015; Shin, 2015; Jun & Palacios, 2016). mCRM facilitates customization of an organization's behaviours consistent with customer experiences that foster customer satisfaction. Consequently, customization influences consumers in developing positive perceptions and attitudes towards in appreciation of the sensitivity of the company towards customers' interests and aspirations. On interactivity, the study found that the continuous interaction provided by mCRM enhances satisfaction as it develops a better understanding of the expectations of customers. In terms of the convenience component of mCRM, the study found that it simplifies service by making it user-friendly in a way that improves accessibility by customers. Lastly, on the security component of mCRM, the study found that data security through mCRM tools develops trust and confidence thus enhancing satisfaction.

The mCRM, customer satisfaction relationship is not universal as other studies do not conclude a positive and significant relationship between the variables (Becker et al, 2009; Elmuti et al, 2009; Zengh, 2011; French, LaBerge & Magil, 2011; Silberer & Schulz, 2012; Chan, 2012; Boris, 2013; Vorley & Budd, 2013). Further studies are inconclusive as to whether or not mCRM significantly effects satisfaction of customers (Camponovo, 2005; Ndubisi, Kok Wah, & Ndubisi, 2007;



Dovaliene, Masiulyte & Piligrimiene, 2015; Dursun & Çelik, 2017; Wei Liu, Zongshui Wang, Hong Zhao, 2020). In the case of Samsung, Dubai, UAE, it is apparent that customers are satisfied with mCRM to the point where it generates considerable satisfaction. This is a significant finding, as the mobile handset market is highly competitive and has matured in terms of technology and innovation, where advantage is increasingly difficult to develop. Various mobile handset providers are seeking new ways to develop advantage rather than relying on improving handset technology alone which is a relatively slow process involving significant investment. In addition, the capability of the leading handset manufacturers has largely equalized where it is increasingly difficult to develop unique selling points at the hardware level. Thus, the findings of this research provide useful insight in that customers value not just hardware improvements, but better software in terms of support and service, where mCRM has been found to be as valuable strategy going forward. By improving in this area, Samsung has a better chance of differentiating from rivals while simultaneously improving in other areas of business strategy. Therefore, mCRM has been found to be an important contributor to the satisfaction of customers of Samsung, Dubai, UAE, and its strategy going forward.

### **5.3 Conclusion on Research Findings**

The influence of innovative mCRM processes on customer satisfaction as discovered in this study, are positive and significant. Given the extensive nature, appropriateness, and reliability of the paradigms, research approaches, data collection, and analysis methods deployed in this study, innovative mCRM can be expected to generate similar influences within the UAE business environment. This can also explain why companies like Samsung and Apple have been able to capture market share through innovative dominance. Similar to most modern markets, the

homogeneity of products being offered within the mobile handset market has caused escalation in competition (Chen, Zhang & Zhao, 2017). Consequently, smartphone competitors within the UAE have attempted to gain the upper hand in by seizing the advantages that stem from innovation.

Studies have indicated that the emergence and increasing necessity of mCRM in the UAE is not only related to corresponding increases in customer reliance on smartphone technology but is as well correlated to the rising necessity of innovation in enhancing user experiences (Freitag, 2012). Participants' feedback on Samsung's mCRM technology have affirmed this perspective. Accordingly, Samsung's engagement in mCRM has contributed in helping the company acquire and sustain a competitive edge in Dubai, UAE. This is because mCRM has enhanced company-customer interactions, generated augmentations in service quality, fostered service-customization while making customer handling more convenient along with augmented customer security (Giovanis, 2016). Customer satisfaction has been securely tied to innovative mCRM (Lee, Tsao, and Chang, 2015). The findings of this study indicate that mCRM processes contribute towards customer satisfaction and given the increasingly dynamic and competitive nature of the UAE business environment, organizations operating therein need to pay attention to mCRM-related innovations to reap benefits associated with the diverse competitive perspectives availed by mCRM.

The realization of such benefits, in light of UAE's competitive and dynamic environment, signifies that companies have to understand and deploy mCRM innovations as competent platforms to support and help implement their strategies (Morgeson III, Sharma & Hult, 2015). As such, mCRM innovations best serve as avenues through which companies can secure customer satisfaction. Customer satisfaction has been highly associated with increased competitiveness (Lee, Tsao & Chang, 2015). The two-tiered link (innovative mCRM-customer satisfaction) informs the assertion that companies' future prospects can be enhanced determined by the

efficiency with which they adopt innovative mCRM (Olatokun & Ojo, 2016). This is an indication that UAE's business environment and its underlying mobile phone market are highly responsive to mCRM innovations. Concisely, the responsiveness stems from the corresponding influences of mCRM components, which encompass customization, convenience, interactivity, service, and security (Olatokun & Ojo, 2016). Innovative mCRM impacts organizational competitiveness within the UAE, milieu has been projected as being heavily determined by the nature of an organization's ability to embody components that cater to amplifications in competitiveness. The findings in this study correlate with existing perspectives that mCRM-related innovations can generate significant impacts on customer satisfaction by helping organizations tailor their dealings and approaches based on customer preferences (Deng et al., 2010). mCRM's innovative processes generate competitive vantage points. This is because the embodied mCRM processes can help companies tailor the nature of their products and services according to customers' dynamic needs. Chiefly, the impacts associated with innovative mCRM are directly linked to the corresponding benefit of mCRM's supportive nature to customer satisfaction strategies. Such an assertion has also been evidenced by the rejection of the hypotheses that mCRM's resulting convenience, customer data security, customization, service quality, and interactivity are not related to customer satisfaction. Since these predicting variables generated statistically significant results, it is logical to conclude that mCRM engagements can lead to improvements in customer satisfaction within the UAE business environment. This strongly implies that mobile telecom firms in Dubai pursue innovative mCRM so they can attain higher levels of customization, interactivity, convenience, service quality, customer data security, and personalization. As such, UAE mobile phone firms can achieve enhanced competitiveness in UAE's telecom sector by deploying mCRM innovativeness for customer satisfaction. Based on the finding that innovative mCRM processes generate customer satisfaction, that support competitive advantage. This is because satisfied

customers are advantageous to an organization in terms of revenue, loyalty, and positive recommendations (Bilgihan, Kandampully, & Zhang, 2016). This phenomenon comes into play when organizations, by deploying mCRM tools achieve the desired level of customer satisfaction.

## **5.4 Implications of Research Findings**

### **5.4.1 Theoretical Implications**

The findings of this research contribute to theory in terms of creativity, novelty, and originality. The aim of the research was to determine whether mCRM impacts customer satisfaction at Samsung, Dubai UAE. A creative approach was taken by considering the innovative processes of mCRM that are customer focused rather than the processes that are company focused that would not have as great of an effect on satisfaction. Because there is no universally agreed set of innovative mCRM processes, this research investigated and synthesized the literature to identify and determine the important processes across a wide range of studies. As a result, customization, interactivity, convenience, service, and security were identified as key innovative mCRM processes forming the independent variables in the study. Rather than replicating from previous studies, this research integrated the most important and innovative mCRM processes across a range of studies to enhance validity and reliability. The research was novel in terms of analyzing customer satisfaction from the perspective of innovative mCRM processes rather than the more commonly researched antecedents of service quality, product quality/pricing, advertising and after sales service. The research found that innovative mCRM positively and significantly impacts customer satisfaction. Thus, the research extended the limited understanding of mCRM in terms of its impact on an organization, specifically customer satisfaction. The research was original even though studies have been carried out in the mobile phone market in other sectors, industries and countries, this research represents the first of its kind in Dubai, the UAE. The findings

provide a benchmark for other researchers interested in the topic, particularly in the Middle East where the culture is similar in the mobile phone market is in growth and expansion.

#### **5.4.2 Managerial Implications**

The findings of this research contribute to practice in terms of strategy, tactics, and operations. Strategy is the overall way in which an organization achieves its goals and enhancing customer satisfaction is an increasingly important goal in today's competitive markets. This research found that mCRM accounted for forty three percent of customer satisfaction which provides knowledge of strategic value to managers and practitioners. Because mCRM was found to be significantly impactful on satisfaction, managers can incorporate it into competitive strategy as a relatively low cost means of enhancing customer satisfaction. This is particularly true in the mobile phone market where innovation in the handsets has peaked and it is increasingly challenging for companies to find advantage. By incorporating mCRM into the business strategy, managers may be able to achieve advantage at a time where scope and options are limited. The findings of this research have tactical significance for managers in terms of revealing the impact of the different mCRM processes on satisfaction. Specifically, the most impactful process was customization, followed by convenience, service, data security and interactivity. Thus managers are aware that customers in the UAE are primarily interested in customized, convenient services and expect adequate data security and interactivity. Accordingly, managers can use this knowledge to allocate resources to the most impactful mCRM processes to enhance the satisfaction of customers. The findings of this research also contribute to business operations are the ongoing activities of an organization in terms of its various different functional elements. Because it was found that mCRM was significantly impactful on customer satisfaction, managers can design platforms to integrate the innovative processes across the various business functions to provide a holistic customer solution. Thus,

the research provided information of value to managers in terms of using mCRM to formulate better strategy, tactics, and operations.

## **5.5 Limitations of this Research**

Although the researcher strived to minimize the range of the study limitations, some aspects could have affected the discussed findings. For data collection, the researcher adopted the information technology industry (Samsung area of operation). On this account, it is plausible to assert that the study was limited to a single industry, and this limits the external validity of the findings of the research. In this way, findings may not be generalizable to other industries that have different circumstances contacts bring about different outcomes. This study was limited to the case of Dubai. On this ground, it is plausible to argue that another limitation of the research is the geographic scope. From a study results generalization area, it is reasonable to affirm that the area is relatively narrow as it focuses on a small geographic area that could restrict data collection and research findings. Also, the research failed to factor in the mediating effect of demographics that can influence research outcomes. Instead, the study adopted an aggregate approach to analyses to identify relationships between independent and dependent variables on the topic under investigation. Finally, the study was relatively on a short-term basis, whereas a longitudinal longer-term study might provide more information and insight.

## **5.6 Suggestion for Future Research**

### **Recommendation for Future Study**

The study has concluded that the innovative processes of mCRM have positive effects on customer satisfaction. Despite this conclusion on the perceived benefits of the adoption of mCRM, in the telecoms sector, future research could further by exploring the financial or marketing benefits of the technology. Research could also incorporate the sustainability aspects of mCRM in impacting company performance. On this account, future studies could take into consideration the perceived benefits of mCRM from the perspective of operational parameters such as optimization of company resources. The findings of such studies would be instrumental in providing a comprehensive overview of the benefits of mCRM on organizational success. In this sense, studying the interrelationship between various variables considered key components of innovative mCRM would add a rich literature for the optimal capitalization of this technology in the corporate world. This study adopted the case of Samsung in Dubai, UAE, However, it did not go into detail to examine how organizational specific parameters, such as company size affect the perceived benefits of mCRM. In this sense, future studies could consider other determinable factors, such as the industry within which the company operates, its size, sales revenue, and the compatibility of mCRM with daily operations in the organization. This need for future studies in this area is informed by the fact that while organizational change is inevitable due to technological developments, such as mobile phones and the internet, organizations operating in the information technology sector and non-technological sectors may not perceive the changes differently. With the adoption of business intelligence, especially in marketing, there is a need for future research to focus on how big data can be incorporated into mCRM to enhance the perceived benefits of the technology, especially in fostering customer satisfaction. Finally, it would be interesting to carry out the same research in other countries in the mobile phone market and in other markets in the Middle East which could reveal important cultural factors that impact on perceptions of

satisfaction, particularly from the deployment of mCRM.

### **Recommendation for Practice**

It is becoming increasingly challenging for mobile telecom handset companies in the UAE to achieve customer satisfaction through traditional approaches. Conventional tactics of improving product functionality, marketing support, and product design remain relevant strategies but with diminishing returns due to rivals' ability to offer similar improvements. Given such a background, mobile handset companies within Dubai should consider implementing innovative mCRM processes that have been found to positively and significantly impact customer satisfaction. As observed by Morgeson, Sharma, and Hult (2015), this move supersedes the functionality of conventional approaches. On the other hand, the embodiment of analytical features simultaneously generates improvements in support personnel functionalities while simultaneously improving marketing and sales engagements. When the mobile phone industry was in the nascent phase, companies could improve customer satisfaction through innovations in the handsets, made possible by emerging technology. However, the technology has currently reached a peak where innovation is incremental and where it can be replicated by an increasing number of competitors. Further, a high reliance on innovation and handsets requires significant R&D expenditure with diminishing returns in the marketplace. Consequently, managers in the mobile phone market should consider investment in the systems and processes that support the handsets, particularly mCRM as a cost-effective means of improving customer satisfaction. Specifically, mobile handset companies should invest in further innovating mCRM to be more customer centric and engaging going forward to raise satisfaction levels of customers. Mobile handset manufacturers are therefore recommended to pay attention to not just hardware improvements in handsets but



commit to software improvements in mCRM to effectively gain customer satisfaction.

Moreover, improved strategy via data analysis contributes towards customer satisfaction through improved mCRM. According to Giovanis (2016), this is chiefly because the analytical component provides the most appropriate and reliable avenue through which organizations can analyse data acquired from various and diverse customer touchpoints. Upon implementation of this recommendation, insights acquired concerning an organization's current status will empower companies to undertake more effective mCRM. Consequently, this will enhance managers' ability to improve strategy thus provide sufficient support to ensure that company personnel can establish strong and lasting customer relationships (Ianessa & Chiliya, 2014). Further, better analytics assist in developing improved business methods that enhance overall mCRM efficiency and effectiveness for improved satisfaction of customers (Madichie, Mpofu & Kolo, 2017).

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## APPENDIX A: SURVEY QUESTIONS

Thank you for deciding to participate in the survey where you will be presented with a series of statements about your experience with Samsung mobile support services. After reading each statement, consider your experience and rank your level of agreement or disagreement by indicating a figure from 1 to 5 where 1 indicates your strongest level of disagreement and 5 indicates your strongest level of agreement with 3 indicating a neutral opinion. If you decide that you no longer want to participate, you can exit the survey at any stage and your data will be immediately destroyed. To begin the survey, click the start button below and when finished click the indicated exit button.

START SURVEY

I can easily reach human-based support service

|                                  |                                  |                                  |                                  |                                  |
|----------------------------------|----------------------------------|----------------------------------|----------------------------------|----------------------------------|
| Strongly disagree                | Disagree                         | Neutral                          | Agree                            | Strongly agree                   |
| <input type="button" value="1"/> | <input type="button" value="2"/> | <input type="button" value="3"/> | <input type="button" value="4"/> | <input type="button" value="5"/> |

Feedback from the system is comprehensive

|                                  |                                  |                                  |                                  |                                  |
|----------------------------------|----------------------------------|----------------------------------|----------------------------------|----------------------------------|
| Strongly disagree                | Disagree                         | Neutral                          | Agree                            | Strongly agree                   |
| <input type="button" value="1"/> | <input type="button" value="2"/> | <input type="button" value="3"/> | <input type="button" value="4"/> | <input type="button" value="5"/> |

Clear answers/instructions are given to customers

|                                  |                                  |                                  |                                  |                                  |
|----------------------------------|----------------------------------|----------------------------------|----------------------------------|----------------------------------|
| Strongly disagree                | Disagree                         | Neutral                          | Agree                            | Strongly agree                   |
| <input type="button" value="1"/> | <input type="button" value="2"/> | <input type="button" value="3"/> | <input type="button" value="4"/> | <input type="button" value="5"/> |

Human interactions are consistently courteous

|                          |                          |                          |                          |                          |
|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| Strongly disagree        | Disagree                 | Neutral                  | Agree                    | Strongly agree           |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

Difficult questions are dealt with adequately

|                          |                          |                          |                          |                          |
|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| Strongly disagree        | Disagree                 | Neutral                  | Agree                    | Strongly agree           |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

The system does not normally freeze or crash

|                          |                          |                          |                          |                          |
|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| Strongly disagree        | Disagree                 | Neutral                  | Agree                    | Strongly agree           |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

Up-to-date information is provided by the system

|                          |                          |                          |                          |                          |
|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| Strongly disagree        | Disagree                 | Neutral                  | Agree                    | Strongly agree           |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

The system promptly resolves customer problems

|                          |                          |                          |                          |                          |
|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| Strongly disagree        | Disagree                 | Neutral                  | Agree                    | Strongly agree           |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

System services are consistent and reliable

|                          |                          |                          |                          |                          |
|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| Strongly disagree        | Disagree                 | Neutral                  | Agree                    | Strongly agree           |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

A wide variety of issues are dealt with by the system

|                          |                          |                          |                          |                          |
|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| Strongly disagree        | Disagree                 | Neutral                  | Agree                    | Strongly agree           |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

Adequate security features are provided for customers

|                          |                          |                          |                          |                          |
|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| Strongly disagree        | Disagree                 | Neutral                  | Agree                    | Strongly agree           |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

I feel safe and secure using the system services

|                          |                          |                          |                          |                          |
|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| Strongly disagree        | Disagree                 | Neutral                  | Agree                    | Strongly agree           |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

The system is not intrusive in seeking information

|                          |                          |                          |                          |                          |
|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| Strongly disagree        | Disagree                 | Neutral                  | Agree                    | Strongly agree           |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

Security updates are provided regularly

|                          |                          |                          |                          |                          |
|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| Strongly disagree        | Disagree                 | Neutral                  | Agree                    | Strongly agree           |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

Customers can easily follow system protocols

|                          |                          |                          |                          |                          |
|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| Strongly disagree        | Disagree                 | Neutral                  | Agree                    | Strongly agree           |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

Using the system enables me to save time

|                          |                          |                          |                          |                          |
|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| Strongly disagree        | Disagree                 | Neutral                  | Agree                    | Strongly agree           |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

I can easily find what I need on the system

|                          |                          |                          |                          |                          |
|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| Strongly disagree        | Disagree                 | Neutral                  | Agree                    | Strongly agree           |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |



Using the system is better than visiting the branch

|                          |                          |                          |                          |                          |
|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| Strongly disagree        | Disagree                 | Neutral                  | Agree                    | Strongly agree           |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

The system is available when needed

|                          |                          |                          |                          |                          |
|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| Strongly disagree        | Disagree                 | Neutral                  | Agree                    | Strongly agree           |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

Overall, I believe that the system is easy to use.

|                          |                          |                          |                          |                          |
|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| Strongly disagree        | Disagree                 | Neutral                  | Agree                    | Strongly agree           |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

Individualized attention is provided to customers

|                          |                          |                          |                          |                          |
|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| Strongly disagree        | Disagree                 | Neutral                  | Agree                    | Strongly agree           |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

There are special services for the older and disabled

|                          |                          |                          |                          |                          |
|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| Strongly disagree        | Disagree                 | Neutral                  | Agree                    | Strongly agree           |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

The system automatically records my preferences

|                          |                          |                          |                          |                          |
|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| Strongly disagree        | Disagree                 | Neutral                  | Agree                    | Strongly agree           |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

Features are easily customizable on the system

|                          |                          |                          |                          |                          |
|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| Strongly disagree        | Disagree                 | Neutral                  | Agree                    | Strongly agree           |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

Overall, it is easy to customize the service for my needs

|                          |                          |                          |                          |                          |
|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| Strongly disagree        | Disagree                 | Neutral                  | Agree                    | Strongly agree           |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

My expectations are met by the service

|                          |                          |                          |                          |                          |
|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| Strongly disagree        | Disagree                 | Neutral                  | Agree                    | Strongly agree           |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

My expectations are exceeded by the service

|                          |                          |                          |                          |                          |
|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| Strongly disagree        | Disagree                 | Neutral                  | Agree                    | Strongly agree           |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

I am more satisfied with Samsung phones because of the services

|                          |                          |                          |                          |                          |
|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| Strongly disagree        | Disagree                 | Neutral                  | Agree                    | Strongly agree           |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

I am satisfied with the level of human based support

|                          |                          |                          |                          |                          |
|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| Strongly disagree        | Disagree                 | Neutral                  | Agree                    | Strongly agree           |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

Overall, I am satisfied with the service and its features

|                          |                          |                          |                          |                          |
|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| Strongly disagree        | Disagree                 | Neutral                  | Agree                    | Strongly agree           |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

The system is better than others that I have used

|                                |                                |                                |                                |                                |
|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|
| Strongly disagree              | Disagree                       | Neutral                        | Agree                          | Strongly agree                 |
| <input type="text" value="1"/> | <input type="text" value="2"/> | <input type="text" value="3"/> | <input type="text" value="4"/> | <input type="text" value="5"/> |

Services encourage me to buy more of Samsung mobiles

|                                |                                |                                |                                |                                |
|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|
| Strongly disagree              | Disagree                       | Neutral                        | Agree                          | Strongly agree                 |
| <input type="text" value="1"/> | <input type="text" value="2"/> | <input type="text" value="3"/> | <input type="text" value="4"/> | <input type="text" value="5"/> |

I feel a closer connection to the company because of the system

|                                |                                |                                |                                |                                |
|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|
| Strongly disagree              | Disagree                       | Neutral                        | Agree                          | Strongly agree                 |
| <input type="text" value="1"/> | <input type="text" value="2"/> | <input type="text" value="3"/> | <input type="text" value="4"/> | <input type="text" value="5"/> |

I am more loyal to the provider because of the system

|                                |                                |                                |                                |                                |
|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|
| Strongly disagree              | Disagree                       | Neutral                        | Agree                          | Strongly agree                 |
| <input type="text" value="1"/> | <input type="text" value="2"/> | <input type="text" value="3"/> | <input type="text" value="4"/> | <input type="text" value="5"/> |

I would recommend the system to other customers

|                                |                                |                                |                                |                                |
|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|
| Strongly disagree              | Disagree                       | Neutral                        | Agree                          | Strongly agree                 |
| <input type="text" value="1"/> | <input type="text" value="2"/> | <input type="text" value="3"/> | <input type="text" value="4"/> | <input type="text" value="5"/> |

Should you have any questions inquiries complaints or feedback on the survey, please leave your message here and when finished, click the enter button.

EXIT SURVEY

|

## APPENDIX B: PILOT TEST FACTOR ANALYSIS

|       | Factor 1 | Factor 2 | Factor 3 | Factor 4 | Factor 5 | Factor 6 | Factor 7 |
|-------|----------|----------|----------|----------|----------|----------|----------|
| INT01 |          |          |          |          |          | .778     |          |
| INT02 |          |          |          |          |          | .741     |          |
| INT03 |          |          |          |          |          | .755     |          |
| INT04 |          |          |          |          |          | .857     |          |
| INT05 |          |          |          |          |          | .574     |          |
| SE01  |          |          | .799     |          |          |          |          |
| SE02  |          |          | .791     |          |          |          |          |
| SE03  |          |          | .891     |          |          |          |          |
| SE04  |          |          | .805     |          |          |          |          |
| SE05  |          |          | .827     |          |          |          |          |
| SC01  |          |          |          |          |          |          | .701     |
| SC02  |          |          |          |          |          |          | .812     |
| SC03  |          |          |          |          |          |          | .595     |
| SC04  |          |          |          |          |          |          | .802     |
| SC05  |          |          |          |          |          |          | .816     |
| CO01  |          |          |          | .823     |          |          |          |
| CO02  |          |          |          | .803     |          |          |          |
| CO03  |          |          |          | .891     |          |          |          |
| CO04  |          |          |          | .839     |          |          |          |
| CO05  |          |          |          | .726     |          |          |          |
| CU01  |          |          |          |          | .830     |          |          |
| CU02  |          |          |          |          | .867     |          |          |
| CU03  |          |          |          |          | .823     |          |          |
| CU04  |          |          |          |          | .602     |          |          |
| CU05  |          |          |          |          | .792     |          |          |
| CS01  |          | .950     |          |          |          |          |          |
| CS02  |          | .810     |          |          |          |          |          |
| CS03  |          | .867     |          |          |          |          |          |
| CS04  |          | .811     |          |          |          |          |          |
| CS05  |          | .811     |          |          |          |          |          |
| CA01  | .896     |          |          |          |          |          |          |
| CA02  | .932     |          |          |          |          |          |          |
| CA03  | .822     |          |          |          |          |          |          |
| CA04  | .828     |          |          |          |          |          |          |
| CA05  | .888     |          |          |          |          |          |          |

*\*Loadings less than 0.3 are not shown in the above table*