
Conceptualisation of customer experience: the case of mobile telecoms services in Morocco

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Abstract: The mobile telecommunications industry in Morocco has undergone rapid evolution supported by globalisation and liberalisation. Mobile operators have embraced customer experience as a way to achieve sustainable competitive advantages. The purpose of this paper is to identify and analyse the drivers of customer experience as described by users in their own words. Our study explores a new conceptual approach for customer experience based on a literature review aiming to define the concept, identify the relevant dimensions and give insight into the most common methods of measurement. The research design consists of a qualitative study based on interviews and discussion with experts and practitioners and supported by focus groups conducted within mobile telecoms services' users in Morocco. The findings suggest that the most relevant determinants of customer experience in the Moroccan mobile telecoms market are the brand image, the pricing, the customer relation, the promotion and the usage tracking.

Keywords: customer experience; measurement; telecom industry; operators; mobile telecoms services; Morocco.

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1 Introduction

This study aims to propose a new conceptual framework for customer experience in the telecommunication industry by adopting a knowledge-based and customer-oriented approach. To this end, first we carefully review extant studies on the theme. The review analysis showed that, currently, the research panorama is still fragmented and, to date, it does not exist a holistic framework for customer experience in telecom industry. Precisely, we questioned what are the determinants of adoption and the most relevant factors influencing customer experience in this sector. Building on prior studies, we propose a novel conceptual framework based on five major factors either incentivising the adoption or impacting customer experience. Our propositions were tested using a qualitative method of analysis, based on a survey interview with experts and focus groups with mobile telecoms service users.

In a knowledge-based economy, knowledge has been recognised as a strategic intangible asset and a vital resource in any organisation (Chu, 2016). Knowledge is defined as a mix of experiences, values, skills, contextual information and perspectives that provide an appropriate environment and structure for evaluating and integrating new information and experiences (Cairo et al., 2015).

Academia, conferences, knowledge from customers and external providers represent external sources for knowledge (Wilson and Campbell, 2016). Knowledge should be considered as a 'product or service' placed on the market to facilitate exchanges within organisations and with customers (Hume and Hume, 2016).

Currently, the knowledge bases and capabilities of using and developing knowledge are the main drivers for firm performance (Inkinen, 2016).

The 'experience' plays an important role in determining the success of a company's offer. The components of the experience are so diverse and variable depending on the customer and the context that its measurement is still a big challenge.

In today's economy, offering goods and services of high quality is not sufficient for a firm to gain a competitive advantage. Companies need to compete on a more complex level by creating and offering a total satisfactory experience through all the purchasing

stages, managing customer's expectations and response before, during and after the buying process (Peter et al., 2009; Berry et al., 2002).

Consumers are no longer simply seeking utilitarian and functional aspects of the product but they are also looking for the hedonistic and subjective side of consumption.

The experiential consumption arises as a new marketing paradigm (Addis and Holbrook, 2001) and the impact of customer experience on the company has been introduced in the marketing literature in the last decade (Prahalad and Ramaswamy, 2004). The customer experience remains a complex and multi-dimensional concept that spreads as a competitive advantage and a new source of differentiation for the company (Pine and Gilmore, 1998; Payne and Frow, 2007).

The literature on customer experience is evolving rapidly and the debate between researchers and practitioners is fervent. While many studies explore this topic from a theoretical perspective, the tools that enable marketers to develop good stimuli to support a great customer experience are still rare.

According to a study led by Bain&Co, a consulting firm, within 362 companies operating in several sectors and their customers, 80% of CEOs claim that they deliver great customer experiences while only 8% of their customers agree with this statement (Coffman and Stotz, 2007).

Around the world, companies recognise the importance of managing and measuring the customer experience as a new compromising challenge to the success of their business (Klaus, 2015). In the last few years, there has been an increased interest in measuring the customer experience. Several measurement methods have been proposed in the literature.

Currently, telecommunications operators have graduated from providing basic voice and telephony services to offering a host of entertainment and other value added services. However, despite the demand for these services, the telecoms industry is struggling with many challenges, which are reinforced by rising consumer expectations for a superior customer experience.

Since its liberalisation in 1997, Morocco's telecoms sector has experienced substantial growth driven by the entry of new operators, the rapid increase in the number of mobile subscribers and rising consumption of voice and data services (Hlasny, 2014). Despite its expansion potential and capabilities, the telecoms sector in Morocco has experienced a slowdown in user revenue rise in recent years as a direct consequence of the fierce price competition among operators. An approach based on customer experience improvement and measurement will hence help to increase the financial performance, reinforce the competitiveness and enhance the brand image for mobile operators.

In this perspective, our study aims to highlight the customer experience concept and demonstrates how a favourable framework for measuring the desired customer experience should be created in order to contribute to value creation for customers and the telecoms operators themselves. The objective of this work is to identify the main factors that may influence the quality of experience for mobile telecom operators' customers. Those factors will help providers to build a customer knowledge which they can refer to in order to set up their customer relation management strategy.

To fulfil these objectives, we adopted an exploratory qualitative approach and used a combination of in-depth interviews and document collection to explore and gather a contextualised understanding of the measures and evaluations of the customer experience in the mobile telecoms market. This paper is structured as follows: Section 2 presents the theoretical foundations of the customer knowledge and experience, it also describes the

customer experience in the mobile telecommunications market with an insight into the Moroccan telecom industry. The research design and methodology are presented in Section 3. The results of the exploratory study are detailed in Section 4 and discussions are provided in Section 5. Finally, Section 6 brings conclusions, future work and research limitations.

2 Theoretical framework of customer knowledge and experience

This study seeks to improve the understanding of customer experience by adopting a knowledge-based approach.

Knowledge management (KM) issues are discussed in the areas of economics, marketing, social network analysis, organisational learning and economic sociology (Khasseh and Mokhtarpour, 2016). This paradigm plays an important role in facilitating innovation and product development, increasing productivity and enhancing operational effectiveness (McIver and Wang, 2016). KM needs to consider customers as a repository of knowledge (Wilson and Campbell, 2016; Rossi et al., 2017; Coluccia et al., 2019). According to Paraponaris and Sigal (2015), knowledge transfer is the process through which one network member is affected by the experience of another. Knowledge requires experience of the subject (learning), of the situations and of the mediums. Sindakis et al. (2015) think that effective exploitation of knowledge is facilitated through the formalisation of experience feedback on services which enables project improvement.

The importance of customer experience as a consumption driver was first cited in the economic literature that described it as the extent to which consumers decide what goods and what experiences to purchase (Keynes, 1936; Parsons, 1934). The experience entered into the marketing field in 1982, with Holbrook and Hirschman who were the pioneer and the founders of the experiential marketing paradigm while Pine and Gilmore (1998) introduced the new paradigm of the ‘experience economy’ at the end of the 20th century.

2.1 Customer knowledge

The customer-centred KM approach (customer orientation, marketing research, etc.) is changing the research paradigm as it induces great societal and market challenges (Sindakis et al., 2015). The challenges of knowledge co-creation with customers have been highlighted by many researchers (Chen and Lin, 2016). According to a survey conducted by the *Journal of Knowledge Management* within a number of companies engaged in KM philosophy and practices, the customer-focused knowledge is considered the favourite type of KM activity (Stefanou and Sarmaniotis, 2003).

Customer-related knowledge is considered to be one of the main factors for improving the firm’s performance and achieving its competitive advantage (Trindade et al., 2015). Good knowledge and understanding about customers is an extremely important principle to successfully meet their needs as they are considered vital knowledge providers for organisations and the most important component for any business (Sheng et al., 2015). Moreover, a robust knowledge system aiming to identify, collect and disseminate the needs of specific customers will contribute to better address their demand and ensure superior market performance (Sindakis et al., 2015).

Indeed, customer knowledge improves customer interaction. The latter affects customer value and then customer satisfaction. Thus, aggregated customer information and data are necessary to improve business decisions and actions about new services, campaigns and communication or market segmentation as well as customers' propensity to move away (Trindade et al., 2015).

We think that the customer is a part of the service process through engagement, contact, interaction, involvement, participation and influence in the services marketing and operations management literatures. In this sense, authors such as Chen and Lin (2016), Sindakis et al. (2015) and Raman et al. (2016) argue that the customer knowledge is necessary for providing knowledge intensive services.

The role of customer involvement and contribution in new innovative customised service development has been highlighted in the literature. For instance, Sindakis et al. (2015) think that service providers should focus their KM approaches, methodologies and tools on the knowledge needs of their customers and prospect users.

Developing and maintaining effective client-vendor relationships is more challenging in the service sector due to the intangibility, inseparability, heterogeneity and perishability of services. Indeed, service providers should collaborate with their customers and share sensitive information about their businesses in order to manage knowledge from their clients effectively (Raman et al., 2016).

According to Oracle's vision as published by Stefanou and Sarmaniotis (2003), customer relation management "is about knowing your customers better and effectively using that knowledge to own their total experience with your business, and to drive revenue rise and profitability."

2.2 *Customer experience*

Experience is an interdisciplinary concept that has attracted the interest of many researchers in the field of economics, psychology and management (Meyer and Schwager, 2007). The term 'experience' can refer to an internal assessment of consumers (Gentile et al., 2007) as well as to a strategic marketing discipline (Same and Larimo, 2012; Schmitt, 1999; Tynan and McKechnie, 2009).

The role of experience has been emphasised in both theoretical and empirical research as the first source of learning. Scholars have studied different types of experiences and the resulting learning (Echajari and Thomas, 2015). Psychologists, consumer behaviourists, philosophers, economists, marketing and management researchers, managers and consultants try to approach and define the customer experience from their own point of view.

Several definitions of the customer experience concept are proposed in the literature. They range from the current and predicted customer's consumption experience, a distinctive economic offer or the result of the interactions with the firm and its products to the concept of consumer search for a new experience as a co-creator of value.

The literature of service marketing concerned with the theoretical concept of the customer experience suggested that the latter is a sum of all indices or clues that the consumer receives through all direct and indirect interactions with the company and its offerings as a part of a total experience (Berry et al., 2002).

A research paradigm explored the customer journey metaphor and defined experience as perceptions of service through each point of contact with the company. Other

researchers asserted that this journey could both precede contact with the company and continue after it (Payne et al., 2008). To provide the desired experience, service firms must capture a set of indices during the customer journey (Berry et al., 2006).

There is a broad consensus that customer experience is different and more complex than quality of service, customer satisfaction, loyalty and recommendation. However, offering an optimal and positive customer experience influences customer satisfaction, creates an emotional connection with the brand and enhances customer loyalty (Berry and Carbone, 2007; Gerpott et al., 2001).

In Table A1 in Appendix, we summarised the definitions of the customer experience concept adopted by different authors. The analysis of those definitions provides a holistic perspective in which customer experience is comprehensive.

Drawing from those concepts and definitions, we introduce a new definition of the customer experience as follows: “the customer experience is the result of the customer’s physical, mental and emotional contact with the company, its offers or surroundings through the customer journey. It results in feelings, attitudes and behaviours expressed by the customer in the shape of satisfaction, loyalty, recommendation and purchase”.

2.3 Customer experience dimensions

The multi-dimensionality of the customer experience is widely recognised in the literature of experiential marketing. Schmitt (1999) says that the consumer of yesteryear interested in functional and utilitarian aspects should be now seen as “rational and emotional human wanting to perform and live fun experiences through five types of experiments: sensory, cognitive, emotional, social and behavioral.” In addition, the author notes that the ultimate goal of experiential marketing is to create a holistic experience that integrates all individual types of experiences into the total customer experience. In fine, the five dimensions provided by Schmitt are the core determinants of customer experience that were adopted and subsequently enriched by other authors who also consider that customer experience is multi-dimensional.

Furthermore, Haeckel et al. (2003) and Berry et al. (2006) distinguish between three types of indices – functional, mechanical and human – that lead to the customer experience. Functional indices refer to the technical quality of the service. Mechanical clues refer to the service encounter and the physical environment. While human clues are represented by the employees’ behaviour and performance such as words, tone and body language expressed by the sales staff (Caputo et al., 2019; Papa et al., 2018).

Moreover, Gentile et al. (2007) suggest that sensory, emotional, cognitive, pragmatic, lifestyle and relational components allow to understand the customer experience. While Verhoef et al. (2009) state that the customer experience is of cognitive, social, emotional and physical nature. Their models of creating customer experience suggests that its determinants should include the social environment, the service interface, the atmosphere of sale, the assortment, the price, the customer experiences in alternative distribution channels and the past customer experience.

According to Lemke et al. (2011), the customer experience consists of three dimensions: the encounter of communication, the encounter of service and the encounter of usage.

2.4 *Customer experience measurement*

There is no doubt that measurement is the basis for understanding, evaluating and improving processes. It seems obvious that we can not manage things that we can not measure. This postulate was defended by McIver and Wang (2016).

The customer experience measurement is viewed as the key challenge for the success of customer experience strategies. Klaus (2015) states that “if done properly, the customer experience measurement is the key of success and profitability.” In his research papers, the author described the complexity of finding and designing the right measures for customer experience.

Executives looking to boost their companies’ competitiveness via superior customer experience have strongly invested in a mix of measures. They range from metrics that score satisfaction, gauge willingness to promote a service or detract from it, to tools to judge how effortlessly a company serves its customers, and even to methods to assess how ‘ideal’ a customer’s experience is. Measuring experience at the journey level instead of looking at transactional touchpoints or overall satisfaction is in the heart of effective customer experience measurement. Companies also capture customer feedback on a daily basis from multiple channels and integrate survey results, social-media posts and operational data into comprehensive dashboards (McKinsey & Company, 2017).

Starting from the literature review on the measurement of the customer experience, we gathered and presented in Table 1 the main methods and operational tools developed by various authors to design and assess customer experience in different areas like service quality management, service marketing, experiential marketing, performed experience and psychology.

Furthermore, the scale development procedure represents an alternative method for measuring the customer experience in specific contexts (Klaus, 2015).

McIver and Wang (2016) developed a reliable and valid scale for measuring the knowledge-in-practice framework that articulates characteristics of knowledge with important implications for organisational work. Similarly, Conchado et al. (2015) described the process of development and validation of a scale to measure the acquisition of competences in higher education. Moreover, the research of Downes and Marchant (2016) suggested a measurement scale customised for Australian community service organisations.

2.5 *Customer experience in the telecoms sector: the case of Morocco*

The digital revolution changed the shape and dynamics of the Telco sector. The massive use of ICT technologies led to the need for a continuous improvement and for innovation. In this landscape, the scenario of the Telco industry is strongly characterised for being an innovation ecosystem, where the innovation is co-produced by customers, suppliers, employees and business partners (Soto-Acosta et al., 2018), through formal and informal inbound open innovation partnerships (Scuotto et al., 2017a; Del Giudice and Maggioni, 2014).

Also, the sector is characterised by the presence of big players, which leverage their growth and innovation through M&A strategies (Rossi et al., 2013; Rossi, 2014; Rossi et al., 2019).

Table 1 Methods of measuring customer experience in different fields

<i>Quality of service management</i>
<i>SERVQUAL</i> (Parasuraman et al., 1988): measures customers' perceptions of expectations (tangibility, empathy, assurance, responsiveness and reliability).
<i>Net promoter score (NPS)</i> (Reichheld, 2006): interviews customers on the recommendation of the company.
In-depth customer interview (Jones and Sasser, 1995).
<i>Experiential marketing</i>
<i>Experiential interview survey</i> (Andréani & Conchon, 2002): in the form of a free conversation without an interview guide or formal response framework (visual expression, role plays, word combinations, buying stories, etc.).
<i>Experiential survey via observation</i> : allows to gather in real-time the experience performed by the customers and to have access to hidden or unspoken information (method of the customer journey).
<i>Methods derived from psychology</i>
<i>Mehrabian and Russel model</i> (1974): emotional responses on the pleasure-arousal-dominance (PAD) scale of 18 items.
<i>Izard's model</i> (1977): a differential scale of emotions (ten emotions/three attributes per emotion).
<i>Plutchik model</i> (1980): eight key emotions evaluated in a scale according to their degrees of intensity.
<i>Service marketing</i>
<i>Blueprinting</i> (Shostack, 1984): a tool allowing to represent in writing the service process before implementation. The objective is to anticipate the problems and to specify the criteria of performance and quality.
<i>Service mapping</i> (Kingman-Brundage, 1991): a management tool describing the chronology of the tasks and activities undertaken by the customer, the frontline and the support team, and contributing to the success of the service.
<i>Service incident analysis</i> (Stauss, 1993): establishes a list of all the problems that the customer faces during the service experience in order to find suitable solutions to solve them. Three main methods: the complaint analysis, the critical incident technique and the sequential incident technique.
<i>Experience audit</i> (Berry et al., 2002; Haeckel et al., 2003; Berry and Carbone, 2007): a tool that is used to systematically examine customers' performed experiences and explain their emotional reactions to each clue sent to customers at each touchpoint with the company.
<i>Walk-through audit</i> (Koljonen and Reid, 2000): an audit of customers used to assess their experiences from the beginning to the end of their interaction with the company. A systematic process to evaluate the customer's perception of the efficiency of the service provided, at each stage.
<i>Service transaction analysis</i> (Johnston, 1999): includes four key elements: the service concept, the service delivery process, the quality of the transaction the messages or the customer's interpretation of the service.
<i>Measurement of performed experience</i>
Customer effort score (Dixon et al., 2010).
Experience engagement process (LaSalle and Britton, 2002).

The telecoms industry is fast moving, but consumers are faster. The digital era has empowered customers and the customer experience has become a market differentiator for telecom operators (CGI, 2016). The complexities of communication service providers (CSP) organisations such as fragmented systems, multi-vendor environments, multiple service, network layers and regulatory obligations present numerous challenges to customer experience improvement (WCIR, 2012).

It seems obvious that in today's hyper competitive environment, customer experience is critical to the success of telecoms companies. That is why, most CSPs understand that delivering superior customer experience is the key to winning customer loyalty and building sustainable competitive differentiation (Scuotto et al., 2017b).

Since customer experience in the telecoms industry is multi-dimensional, the initiatives undertaken to measure and improve it also need to be multi-dimensional, addressing different functions from customer care to network departments (WCIR, 2012). Operators should make a radical change from just measuring independent key performance indicators to actually understanding and measuring the end-to-end experience (Comarch, 2013).

As the telecommunications sector in Morocco became increasingly saturated and competitive, operators focused on developing strategies to diversify their revenue streams in order to maintain profits. The mobile telecoms market is largely dominated by the prepaid segment characterised by a slowdown in expansion and maturity as the three major competing operators have little differentiated value propositions. The customer experience becomes thus a big differentiation factor that allows operators to stand out (Salmon, 2013).

In this paper and as part of our theoretical contribution, we develop a reflexion on the customer measurement tool. Our objective is to enable mobile telecoms operators to overcome high churn rates and build a sound relationship with their customers which will result in great satisfaction, reinforced loyalty, increased purchase and positive word of mouth.

2.6 The customer experience in the telecoms industry

Competition is fierce on multiple levels in the telecoms industry, including the devices available in the provider's catalogue of offers, the proposed tariff plans and the delivery of innovative services. CSPs in both mature and emerging markets face competition from new entrants that have changed the foundation of the telecoms sector. Thus, customer loyalty can no longer be taken for granted as subscribers are currently more inclined to switch the provider than they have ever been in the past (Gerpott et al., 2001).

Historically, the telecoms industry has considered customer experience management as simply the technology systems used to manage either customer relationships or network quality. But, since network quality and coverage ceases to be a major differentiator, telecoms operators have started to compete on the level of customer experience (Comarch, 2013).

TM Forum (2015), a global telecoms industry association, defines customer experience in the sector as "the result of the sum of observations, perceptions, thoughts and feelings arising from interactions and relationships between customers and their service providers."

Operators are increasing the value of their products and services at a high pace, but consumers fail to understand or acknowledge the complexities of the telecoms delivery

model. They expect the telecoms industry to do more, faster than the evolution of the technology that supports it (Inmoment Telecom Report, 2017).

The customer is now interested in a great experience, regardless of the location, the device or the expected service. That is called ‘the ubiquity of service’ – meaning the ability to replicate the user experience at any time, easily and without constraints (Digital Marketing Blog, 2015).

Beyond enhancing the customer’s perception, the customer experience affects the company’s financial performance (Campanella et al., 2014; Gibbert et al., 2001). In the telecoms sector, it acts on the improvement of four structuring levers of the business model namely satisfaction, loyalty, recommendation and acquisition (Salmon, 2013).

Telecoms companies have realised that optimising customer experience needs to be a cornerstone of their business strategy. A survey conducted by TM Forum indicates that customer experience is one of the top three priorities for CSP transformation programs. Another survey conducted in 2011 by Ovum, an industry analyst firm, reported that improving customer experience is at the top of the five list of priorities for CSPs across the world (TM Forum, 2015). A Bloomberg Business Week research reported that 92% of telecoms executives say that customer experience is a top strategic objective for them and yet they themselves rate their own experience relatively low and so do customers.

A research carried out in 2011 by Beyond Philosophy (2012), a consultancy company, based on a sample of 8,000 customer experience executives from 239 countries and regions of the world as well as in-depth interviews of 53 leading authorities on customer experience from six continents, concluded that telecoms operators were allocating the most resources to customer experience.

Cap Gemini Consulting’s (2016) latest research found that digital holds the key to unlocking customer experience and satisfaction for mobile operators’ customers, which become a digital Telco’s. In order to have and provide a good customer experience, internet should be integrated into the front-office company functions like marketing, sales and service (Stefanou and Sarmaniotis, 2003).

Many researchers and consulting companies have focused on the customer experience determinants in the telecoms industry especially for CSP. Various dimensions have been developed like accessibility, integrity, service experience, usage experience, brand image, billing, service and network quality, customer care, product and service portfolio, service supply, store and gallery experience (Wyman, 2015; Joshi, 2014; Domb et al., 2015). In Table A2 in the Appendix, we gathered and summarised the main determinants of customer experience in the telecoms industry that we have identified after a deep and extensive analysis of the literature and the studies carried out by a variety of specialised telecoms consultancy firms.

As the industry shifts from network-centricity to service and usage-centricity, many operators are moving the focus of their business metrics to enhance the customer experience (Yankee Group, 2012). Operators must evaluate all the dimensions while framing a definition of customer experience improvement and should assess the relative importance of each dimension (Bontis and Fitz-Entz, 2002; Nerdrum and Erikson, 2001). This will ensure that factors that have the highest impact on organisational goals receive the highest share of focus and investment (WCIR, 2012). The complexity of networks and IT landscapes, coupled with the launch of new services makes measuring customer experience complicated (Comarch, 2013). Actually, most CSPs lack a holistic approach

to defining, measuring and improving customer experience, which reduces the impact of programs targeting the improvement of customer experience (WCIR, 2012).

According to Domb et al. (2015), a measure called Amdocs Customer Experience Index (ACEI), calculated on a scale of 1 to 10 allows assessing the overall experience that the customers have from their mobile service providers. ACEI is designed to be deployed across various lines of business, geographies and demographics. The metric is founded from a theory developed through strong academic support and proven by statistical rigor to measure customer experience at all possible touch points of customer interaction with the telecoms operator, based on an industry benchmark.

Another research technique, pioneered in the 90's called maximum difference scaling (MaxDiff) requires customers to make a sequence of explicit exchange. This algorithm permits to rank attributes' desirability on a relative scale (HBR, 2009).

Using the structural equation modelling (SEM) also enables telecoms companies to know what customers really want and what drives value. This method allows prioritising the aspects of the experience the company need to focus on (Beyond Philosophy, 2012).

2.7 The telecoms sector landscape in Morocco

The Moroccan telecoms market has undergone major transformations and developments in recent years characterised by the liberalisation of its environment. Its contribution to the economic expansion in Morocco has been enhanced in recent years with the sector being the country's largest tax contributor and accounting for a large share of foreign direct investment and employment (Libération, 2016). The turnover generated by the telecoms industry has increased to 2,770 million € in 2017 against only 3.9 million € in 1999 and job creation was enhanced at more than 14,000 employees at end of 2017.

Morocco is one of the first countries in the Middle East and North Africa region that has institutionalised a regulatory environment for promoting competition in the telecoms sector and encouraging private operators to enter the market (World Bank, 2011; Kettani, 2015). In 1996, Law 24-96 paved the way for the liberalisation of the sector and ended the monopoly of state-owned Maroc Telecom. The National Telecommunications Regulatory Agency (ANRT) monitored the pace of deregulation and the introduction of competition, allowing the entry of new players into different segments of the market and setting up legal, technical and economic principles of interconnection on a shared network (Wellenius and Rossotto, 2000; Diop, 2010). The Moroccan telecoms market encompasses three major competitors operating in the telephony and data segments – Maroc Telecom, Medi Telecom and Wana Corporate. Their market penetration has progressed according to their infrastructure, their access to the common network and their approach to pricing and service supply.

Morocco has expanded its telecommunications services to cover the entire national territory and population offering high mobile and internet penetration rates, some of the lowest prices for broadband internet access and latest technologies and services. It is the first country in North Africa to have granted mobile broadband licenses in 2007 and installed 3G mobile telecoms networks. The country has also invested heavily in ICT expenditure compared to its counterparts in the Middle East and North African region (ITU, 2017; Hlasny, 2014). The most important achievements resulting from the liberalisation of the telecoms sector are more competitive prices, diversified services and usages, modern and performing infrastructure, better access, higher service quality, business opportunities for individuals and enterprises (Kettani, 2015). This new frame

was favourable to the development of the telecoms market, mainly through the expansion of the mobile telephony and data network. Accordingly, the mobile phone penetration rate increased from 6.49% in 1999 to more than 126% in 2017 and Internet penetration moved from 0.12% in 1999 to 63.7% in 2017. The smartphone penetration reached 73% in 2017 against 12% in 2011 and the proportion of internet users is estimated at 62% in 2017 instead of 57% in 2010 (ANRT, 2018; Bouzekri, 2016). Most households have internet access and most citizens are equipped with IT devices and are using telecoms services on a regular basis (ITU, 2017).

In recent years, mobile subscribers as well as voice and data traffic have been evolving at a decreasing and moderate rate as the market is saturated. The price war between providers that has taken place over the last few years, combined with a pre-existing high rate of market coverage, have led to declines in revenues and operators' value. The average revenue per user (ARPU) has been dropping since 2007. Free competition through per-minute prices and strict regulation of auxiliary rates that providers may charge, such as interconnection, call termination or phone number portability have restricted the ability of telecoms operators to compete on features other than the price (ANRT, 2016). Telecoms operators in Morocco need a holistic approach in order to define, measure and improve customer experience. They should continuously listen to customers, adapt and then develop strategies and experiences that meet consumers' changing demands (Inmoment Telecom Report, 2017).

The customer service executive at Medi Telecom, the second Moroccan mobile operator, Jalil Tahfi said: "we can have the best offer in the market with an attractive price and innovative services, its success can only be guaranteed if the experience of the customer is pleasant, simple and fluid in terms of usage as well as in terms of interactions with the provider." At Medi Telecom, customers are considered through their feedback, but also through their emotions and feelings. Their perceptions are analysed deeply based on field surveys, information reported by the employees and the operator's partners including those who have direct contact with customers (Salmon, 2013).

3 Research design and methodology

As part of our research, we followed a qualitative approach based on both interviews with experts as well as focus groups that consist of mobile telecoms operators' customers. Qualitative research is an important mechanism for the identification of dimensions of critical service encounter as it is successful in identifying sub-dimensions such as evaluating quality of interaction, physical environment and outcome of a service experience. Research based on experience is more subjective in nature involving the understanding of consumer's perception having varied interpretations and within different contexts (Chaudhry and Pirzada, 2013; Gebert et al., 2003).

After defining the customer experience construct, we conducted interviews with practitioners and consultants in the field of customer experience and telecoms industry. Then, we carried out an exploratory study based on eight focus groups in order to conceptualise the research model, elaborate the customer experience dimensions and generate the corresponding items and statements in the context of the mobile telecoms sector in Morocco.

3.1 *Research methodology*

The conceptual framework was tested through the use of the qualitative method of the focus group, aimed at exploring novel topics. Precisely, first we conducted a survey questionnaire on a sample of individuals. Questions of the survey were elaborated in order to elicit respondent's mind and orientation toward customer experience.

Based on a deep and extensive literature review and interviews with consultants in the field of customer experience and practitioners from the mobile telecoms industry, we elaborated a set of dimensions and established a pool of corresponding items for mobile services offered by telecoms operators in Morocco.

The interviews were conducted in order to assess the quality of items generated from the literature and measure the customer experience. This approach helped us to discuss the concept of customer experience and identify its determinants in the context of the telecoms industry and also enabled us to determine the customer journey within a telecoms operator in Morocco. The use of experts as judges of a domain has been commonly used in marketing (Hardesty and Bearden, 2004).

In order to complete and sort the identified dimensions and the generated attributes, we have undertaken a qualitative exploratory study based on focus groups with the objective to understand the experiences of mobile telecoms services users in Morocco as they are lived and perceived by customers. To this end, exploratory research was found to be a flexible and valuable method for social science domain that aims to help the researcher simplify problems and clarify concepts.

The focus group approach is an informal discussion within a group of individuals selected on a particular topic (Gerpott et al., 2001). From a methodology point of view, the interviews target a group of six to eight people from similar social and cultural backgrounds or with similar experiences and concerns. They come together to discuss topics with the help of a moderator and in which participants feel comfortable enough to engage in a dynamic and spontaneous discussion for one or two hours (Wilkinson, 2004). Focus group have a distinct advantage over other available qualitative research methods when the researcher does not know what all of the issues surrounding a topic (Malhotra, 2007). The main purpose of focus group is to gain insights by listening to a group of people to figure out what the key issues, ideas and concerns are from multiple participants at once. Indeed, focus group seems to be the appropriate technique for our research in order to elaborate items on the main dimensions for mobile telecoms users.

Table 2 Classification of focus group participants

<i>N</i>	<i>Age class</i>	<i>SPC</i>	<i>Area of residence</i>	<i>Gender</i>
1	15 to 18 years	SPC-	Urban	Mix
2	15 to 18 years	SPC+	Urban	Mix
3	18 to 24 years	SPC+	Urban	Mix
4	18 to 24 years	SPC-	Rural	Men
5	25 to 45 years	SPC+	Urban	Mix
5	25 to 45 years	SPC-	Rural	Women
7	25 to 45 years	SPC-	Urban	Mix
8	50 years and over	SPC+	Urban	Mix

We organised eight focus group interviews during the month of January 2018 to further generate and refine the items for the preliminary dimensions of customer experience in the mobile telecoms industry. Each group consisted of six members selected following a call for participation that we launched within the three Moroccan mobile operators' customers. The choice of individuals in each group was done considering a number of variables like age, gender, socio-economic category and geographic location. The participants' profile is indicated in Table 2.

The discussion within each group lasted one hour and half and were focused on the usage of mobile telecoms services, namely voice, data, internet and complementary services. The participants talked about the perception they have of their operators and their offers and discussed the most important dimensions and attributes from their perspective through the customer journey. During the focus group interviews, different projective techniques of moderation were used, namely the mind mapping and the Chinese portrait because of their relevance to the case of our study. Those methods of analysis aimed at extracting from the mobile telecoms service users their perceptions, attitudes and spontaneous evocations towards mobile phone, internet and operator.

The mind mapping technique consists of using a central term and describing all its derivatives according to the perception and experience of the participants. Used frequently in diagnostics and demarcation of the states of art, this method allows the moderator to identify the important elements to dig into animation. It also allows identifying all the aspects related to a brand, a product, a need or a concept.

The Chinese portrait is a projective technique that consists of asking consumers to personify a brand, a product or a concept in order to analyse their perception and vision. It is a representation of the positive and negative aspects of the subject of study through the personified description. Often used at the end of the animation to conclude the discussion in order to encourage the participant to take into account all the points discussed during the focus group (Andréani and Conchon, 2002).

The discussion allowed us to highlight the dimensions, the items and the verbatim expressed by mobile telecoms users.

For data analysis, we collected recorded data that we transcribed using the transcriber application. To this end, we used the content analysis method (Hennink, 2007). Then, we processed and coded all the answers, then interpreted and analysed the verbatim according to the method of syntactic analysis and semantics (Bardin, 1977).

According to this analysis, we built clusters of answers that we grouped around key recurring ideas that revolve around the factors and dimensions initially identified and developed as part of the customer journey mapping.

4 Results of the analysis

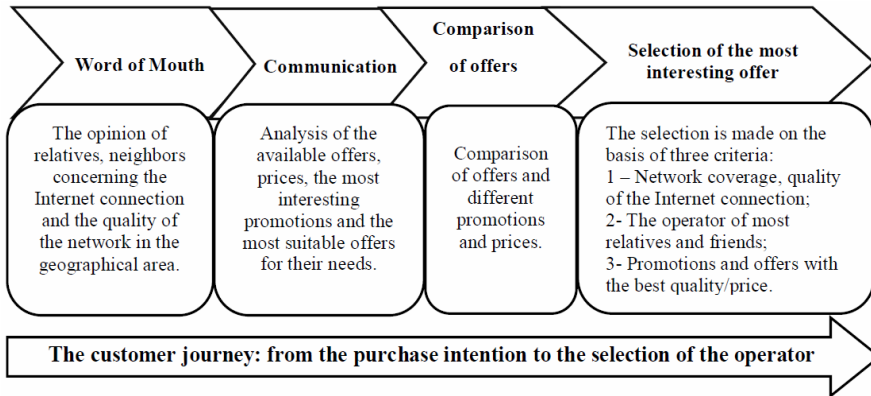
Regarding the customer journey and referring to the focus group discussion, the outcomes show that prepaid customers make their choice before going to the agency and make the purchase. They are not sensitive to a commercial effort from the staff at the sales point. In contrary, post-paid customers are looking for additional information when they arrive at the agency. The experience at the sales point plays a very important role in their perception of the brand as well as in the choice of the offer.

In Figure 1, we transcribed the customer journey for a mobile telecoms operator in Morocco as it was described and revealed by their customers.

The ‘mind mapping’ method allowed us to identify all the spontaneous evocations related to the mobile phone and helped us to understand the perception and the global usage from the point of view of the participants. All the participants perceive the mobile phone as ‘mandatory’ though usage and frequency of use differ among targeted customers.

Regarding internet, the usage concerns all urban participants in all social and age categories. In rural areas, internet is mainly used by young men. internet usage differs depending on age, the youngest use the internet mainly for social networks and for research and entertainment. They perceive the internet as a way of ‘getting closer to the world’, ‘communicating with friends and meeting people’. When recalling the internet, adults think about e-mails, news, localisation and connection speeds “it’s the best way to stay up-to-date and know what is happening in the surrounding and in the rest of the world.”

Figure 1 The customer journey of a mobile telecoms operator



From the point of view of all participants, the quality of the network, its geographical coverage and the quality of the internet connection are directly related to the operator. The quality of the network varies depending on the neighbourhood, which makes word of mouth very influential in the choice of the operator. A minority of participants choose their operator based on the good reputation of its network, on the quality of internet connection provided and on its history “even if the customer service is bad, we have the guarantee to have a good quality of connection without interruption.”

As far as the mobile operator is concerned, a large majority of participants note a lack of transparency from their operators with regard to internet speeds and communication pricing. When the connection speed is low or when the quality/price ratio does not meet their expectations, customers become very suspicious towards their operators.

The vast majority of participants who are post-paid customers believe that their relationship to the operator is limited to the payment of bills and to the quality of the network and the internet connection. They pay attention to communication made by operators because it allows them to stay up to date with the different promotions and new offers. Customers become loyal once the quality/price ratio suits them and consider that

quality is equal to continuous and uninterrupted internet connection and network coverage (Choudhary et al., 2018).

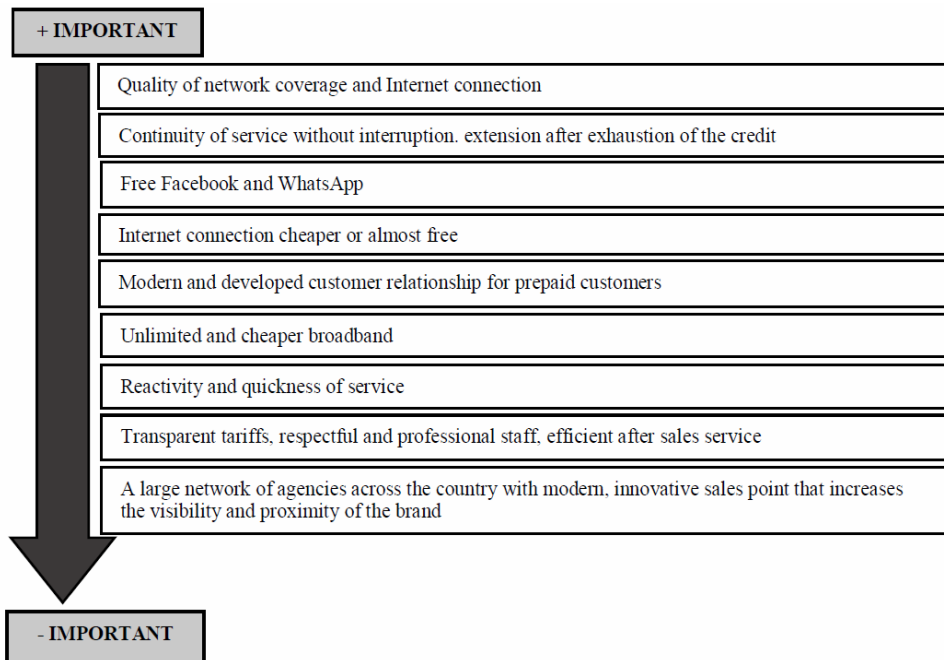
For prepaid customers, the large number of intermediaries and the diversity of distribution channels make their relationship with the operator less developed. The choice of the latter is based on word of mouth, the quality of network coverage and internet connection in the geographic area of prepaid customers.

Participants were asked to assign importance coefficients to all the criteria which help them to evaluate an operator. They all agree that operators should improve their network coverage and the quality of their internet connection: “currently, it is not acceptable to have such a slow connection and to look for the network coverage. Operators are quite developed and are making enough money to guarantee a better service.”

The staff and the agencies should be customer centric, modernised and/renovated in terms of service and hospitality. Customers expect interesting internet offers and want operators to provide customised and tailored offers in terms of usage and budget. They need more transparent and clear price packages and deals to better understand what they are buying and consuming and at what price. They want to have the possibility to track their consumption through digital services or messages. They are also willing to see appropriate and targeted promotions as well as elegant and creative advertisements.

Focus group participants were asked to assess their expectations and to prioritise the factors of great importance for them as it is shown in Figure 2. Based on focus group participants’ ranking, it comes out that quality of network and internet connection are at the top of expectations followed by continuity of service in particular the internet connection. Personalised customer relationship comes in third position.

Figure 2 Expectations ranking according to their importance and the impact on the brand image



From our exploratory study, we figured out that customers are the actual ambassadors of a mobile telecoms operator in Morocco. What they say about the quality of the network and the internet connection in their area of residence could influence other customers and may affect the operator’s brand image. The sales points represent the mirror of the brand on the outside world. Even if customers no longer visit the agency after the purchase of their mobile phone card, the visibility of the external and internal appearance of the store plays a significant role and has a great impact on the perception of the brand image.

The Chinese portrait that we applied during the discussion helped the participants to personify their mobile telecoms operators as they perceive and feel about them as brands. The results are variable given that the customer experience within operators is multi-factorial. These factors are independent of each other but globally they all contribute to the image and the adherence to the brand.

Figure 3 Dimensions of customer experience in telecoms industry from literature

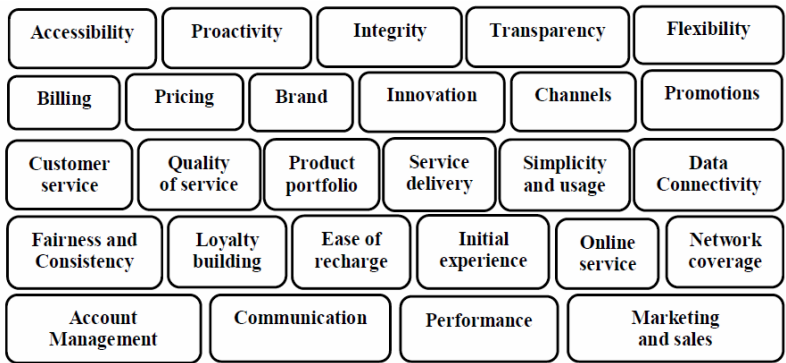
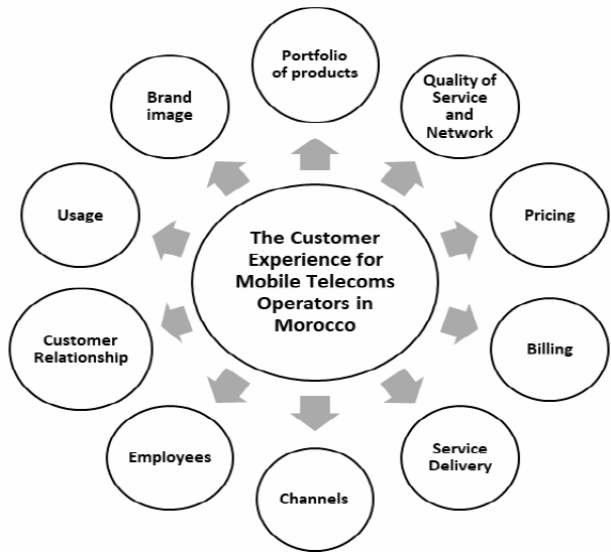


Figure 4 Dimensions of customer experience in the Moroccan telecoms industry sorted by experts



To sum up, Figure 3 shows the 27 items of the customer experience in the mobile telecoms industry that we extracted from the literature analysed previously.

Qualitative interviews with experts in the domain of customer experience and practitioners operating in the Moroccan telecoms sector helped us to gather these items around ten dimensions as it is shown in Figure 4. They are mainly portfolio of products and services, brand image, usage, pricing, service delivery, quality of service and network, channels of distribution, billing, customer relationship and employees.

Drawing from deep discussion within the focus groups organised, some dimensions were maintained like brand image, portfolio of products and services, pricing, distribution channels and customer relation. Others were deleted such as billing, staff and usage. Additional dimensions were suggested such as operator integrity, continuity of service and usage tracking. Then, we operated a merger of some dimensions and came out with five last dimensions and the corresponding items that we summarised in Figure 5.

Figure 5 Dimensions and items of customer experience from mobile telecoms customers' groups

Brand Image	<ul style="list-style-type: none"> • The operator is innovative and modern • The operator is old and authentic • The operator is transparent and honest • Trust relation with the operator
Pricing	<ul style="list-style-type: none"> • Transparent price plan • Prices are attractive and competitive • Innovative and personalized offers • Flexible offers and packages
Customer Care	<ul style="list-style-type: none"> • Efficient customer care service • Professional and responsive staff • Performant after-sales service • Extensive network of sales points • Modern, visible welcoming and pleasant stores
Promotion	<ul style="list-style-type: none"> • Elegant and creative advancements • Attractive visuals • Targeted advertisements
Usage Tracking	<ul style="list-style-type: none"> • Simple and clear platform for more follow up • Detailed bill • Internet service without interruption

5 Discussion

The customer experience in the mobile telecoms sector in Morocco is multi-factorial. It begins at the moment of the selection of an operator through reputation, word of mouth and the narratives of relatives. Once the choice is made, this experience continues with the information aspect depending on the operators' communication. While looking for the most suitable offer, consumers are receptive to advertisements and search the internet and social networks.

Interactions with the operator's offer and the staff are maintained in the sales point. The impact of sales points on the brand image and the perception of the customer is considerable. The customer views the agency as a place of completion of the purchase but also as showcase, point of contact and interaction with the operator. It represents the way the operator projects himself to the customers.

Hospitality, interior and exterior aspect, signage and layout, comfort and modernity of sales points of as well as staff behaviour and fluidity of waiting times in the agency play a major role in the quality of customer experience.

A large majority of participants believe that it is difficult nowadays to remain loyal to an operator as quality of network and internet connection is variable and changes regularly and randomly. Quality of network as well as its coverage and performance of internet connection and speeds have a great impact on the overall customer experience. If the network is bad, the customer becomes completely refractory to the brand and is more and more suspicious of all communications, offers and promotions. Paradoxically, when a customer realises that the quality of the network and the internet connection in his neighbourhood are good, he is willing to share the information around him and recommend the brand. He becomes more and more attentive to the operator's communications, offers and promotions.

Influence of peers' experience is significant in the brand recommendation. Communication, advertising and promotions are also an integral part of the customer experience. The operator is perceived as being close to its customers, creative and innovative when its offers and promotions meet their needs, targeting specific customer profiles.

Pricing and billing are major parts of the customer experience. Customers expect clarity in the conditions of engagement, total transparency as to price package. Even prepaid customers want to be able to track their consumption and understand what they are paying for and what they are exactly buying. There is a consensus among all customers about the transparency of the pricing especially regarding Internet connection.

Continuity of service is an expectation for all participants. Interruption of the service is very badly experienced by all customers who believe that operators can warn customers before the end of the credit or make refills on cards.

6 Conclusions, future research avenues and implications of the research

Drawing from the theoretical and conceptual framework of the customer experience and its measurement and building on a qualitative exploratory study, we found out that brand image, pricing, customer relation, promotion and usage tracking are the major components of the customer experience for a mobile telecoms operator in Morocco.

The qualitative study helped us to conduct an exploratory analysis aiming at identifying the sub-processes which make up the customer experience. It also allowed building the customer experience schema which is called the journey mapping. In the next steps, we will conduct a quantitative study based on a questionnaire with 500 mobile telecoms customers in Morocco. This survey aims to empirically test the selected items through a field data collection in order to determine the main items and the key factors for customers in their perception and evaluation of the experience provided by their mobile telecoms operators. A statistical analysis using the exploratory and confirmatory

factor analysis methods and the structural modelling technique will be carried out aiming to test the items and the dimensions and operate their validity and reliability. The ultimate goal is to create a robust multi-items scale for measuring the customer service experience in the context of the Moroccan mobile telecoms market.

Also, the study has some relevant implications, both at theoretical and practical level. At a theoretical level, it proposed that customer experience in the Telco industry might be determined by five factors, differently from prior findings. Such factors have a direct practical relevance. By leveraging on each of these five factors, managers may drive a positive customer experience, reduce negative feedbacks, improve loyalty and increase customer's engagements. Therefore, either at a theoretical or practical level, the model provides an insightful perspective for value creation mechanisms. Anyway, future research should be aimed at further verify the model through robust, large-scale empirical analysis. Importantly, the analysis shall include other countries and check for cultural and other structural or infrastructural factors. Future scholars shall test the validity of the questionnaire and of the scale here adopted. In addition, the technological component might largely impact customer experience. However, in this case this variable is poorly considered. In future, technological aspect will assume the paramount importance, as instance with the introduction of the 5G. Thus, future research should extend the consideration of this aspect for customer experience.

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Appendix

The definitions of customer experience provided by authors are summarised in Table A1. In Table A2, we present and list the determinants of customer experience in the telecoms industry extracted from the literature.

Table A1 Definition of customer experience from the authors’ perspectives

<i>Authors</i>	<i>Definitions</i>
Carbone and Haeckel (1994)	The ‘experience’ means the ‘takeaway’ impression formed by people’s encounters with products, services, and businesses.
Schmitt (1999)	Experiences occur as a result of encountering, undergoing or living through things.
Gilmore and Pine (2002)	The experience is a series of events staged by a company with the objective to involve the customer. The experiences are personal, distinctive and memorable.
Berry et al. (2006)	The customer experience is a set of indices (clues) which includes features that are both functional and emotional. The combination of all indices is the ‘total customer experience’.
Meyer and Schwager (2007)	The customer experience is the internal and subjective response customers have to any direct or indirect contact with a company.
Gentile et al. (2007)	The customer experience originates from a set of interactions between a customer and a product, a company, or part of its organisation, which provoke a reaction.
Sundbo and Hagedorn-Rasmussen (2008)	The customer experience is a mental journey that leaves the customer with memories of having accomplished something special, having learned something or just having had fun.
Solomon et al. (2009)	The experience is a continuous learning generator for individual behaviour.
Maklan and Klaus (2011)	The customer experience is the internal response, which results from a cognitive and emotional evaluation of all the encounters related to the purchase behaviour.
Lemke et al. (2011)	The customer experience is a holistic, multi-dimensional and context specific concept.

Table A2 Determinants of customer experience in the telecoms industry

<i>Authors/sources</i>	<i>Dimensions/items</i>
Verhoef et al. (2009) Three parameters based on network centric approach	<ul style="list-style-type: none"> • Accessibility • Integrity • Retainability
Client View (2011) ⁺ Three categories	<ul style="list-style-type: none"> • Financial experience • Service experience • Usage experience
Barros and Beguiristain (2012) Five stages in customer lifestyle	<ul style="list-style-type: none"> • Initial experience • Billing and payment process • Account management • Service and support • Loyalty building
WCIR (2012) Six dimensions	<ul style="list-style-type: none"> • Marketing and sales • Brand • Billing, charging and cost management • Service and network quality • Customer support • Product and service portfolio
Beyond Philosophy (2012) Three parameters for customer journey mapping	<ul style="list-style-type: none"> • Rational experience • Emotional experience • Subconscious experience
Analysis Mason (2013) ⁺⁺ Six phases in lifecycle	<ul style="list-style-type: none"> • Commitment phase • Order to fulfilment phase • Service delivery • Accuracy of bills • Quality of service • Availability of service.
Wyman (2015) Three dimensions	<ul style="list-style-type: none"> • Reducing customer effort (three items): <ul style="list-style-type: none"> a Simplicity and usability b Proactivity c Accessibility • Satisfying emotional needs (three items): <ul style="list-style-type: none"> a Fairness and consistency b Transparency c Personal appreciation

Notes: ⁺Customer perspective for project managers.

⁺⁺Customer experience management framework: how to retain subscribers and improve customer loyalty.

Table A2 Determinants of customer experience in the telecoms industry (continued)

<i>Authors/sources</i>	<i>Dimensions/items</i>
Wyman (2015) Three dimensions	<ul style="list-style-type: none"> • Creating benefits from product usage (three items): <ol style="list-style-type: none"> a Solution and service orientation b Performance c Quality and flexibility
Joshi (2014) Five dimensions for cellular mobile services of a telecom company	<ul style="list-style-type: none"> • Service performance/delivery (seven items): <ol style="list-style-type: none"> a Consistent service delivery b Appropriate charges, value for money c Pricing better than competitor d Data connectivity and speed e Product better than competitor f Network coverage g Quality of service • Culture of customer care (four items): <ol style="list-style-type: none"> a Efficient customer care b Feel valued as customer c Company responsiveness d Complaint handling • Communication (three items): <ol style="list-style-type: none"> a Update of current/new services b Service matching customer needs c New technology launch/time to market • Brand (three items): <ol style="list-style-type: none"> a Marketing communications b Brand image/reputation c Incentives/promotions by operator • Environment (three items): <ol style="list-style-type: none"> a Ease of recharge b Billing transparency c National do not call registry (NDNC registration)
Domb et al. (2015) Six dimensions	<ul style="list-style-type: none"> • Brand image (four items): <ol style="list-style-type: none"> a Advertisements and promotions b Variety of offers c Valued customer d Operator is trustworthy

Notes: ⁺Customer perspective for project managers.

⁺⁺Customer experience management framework: how to retain subscribers and improve customer loyalty.

Table A2 Determinants of customer experience in the telecoms industry (continued)

<i>Authors/sources</i>	<i>Dimensions/items</i>
Domb et al. (2015) Six dimensions	<ul style="list-style-type: none"> • Service delivery experience (five items): <ul style="list-style-type: none"> a Operator is transparent b Operator delivers all services c Pricing is competitive d Tariff plan is clear e Change in service experience • Network experience (five items): <ul style="list-style-type: none"> a Indoor network coverage b Outdoor network coverage c Call connectivity d Call quality e Data service • Customer care experience (three items): <ul style="list-style-type: none"> a Accessibility to customer care b Polite and courteous c Efficient and quick • Store and gallery experience (three items): <ul style="list-style-type: none"> a Store/gallery easily accessible b Experience at stores c Online self-service • Billing and self-service experience (two items): <ul style="list-style-type: none"> a Bills are accurate b Easy to recharge
CGI (2016) Five dimensions	<ul style="list-style-type: none"> • Offer/service • Channel • Price • Usage • Billing
Inmoment Telecom Report (2017) Emotional and functional aspects. Three determinants	<ul style="list-style-type: none"> • Time • Emotion • Interaction

Notes: ⁺Customer perspective for project managers.

⁺⁺Customer experience management framework: how to retain subscribers and improve customer loyalty.