A metrics-driven approach for customer experience management evaluation: the case of commercial banks in developing countries

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Abstract

Purpose – Customer experience management (CXM), which aims to achieve and maintain customers' long-term loyalty, has attracted the attention of many organizations. Improving customer experience management in organizations requires that, first, their relevant capabilities be evaluated. The present study aimed to offer a set of key performance indicators for evaluating customer experience management in commercial banks.

Design/methodology/approach – The study, first, attempted to identify the components of evaluating customer experience management by reviewing the related literature and conducting interviews with experts. Then, the extracted components were transformed into assessable metrics using the goal question metric method, and the key performance indicators relevant to customer experience management in commercial banks were selected according to the experts' opinions and the Fuzzy Delphi method.

Findings – According to the findings of the study, 21 key performance indicators were identified for customer experience management in commercial banks, and customer satisfaction, the mean number of calls to resolve an issue in customer journey touchpoints, the NPS, and the ratio of the budget allocated to the CXM department to the budget of the marketing department were found as the most significant performance indicator according to banking experts.

Originality/value – The present study was among the first research projects intended to evaluate CXM and offer key performance indicators that could help the managers of commercial banks assess the maturity levels of their CXM.

Keywords Customer experience management, Customer experience, Key performance indicators, GQM approach, Fuzzy Delphi

Paper type Research paper

1. Introduction

Focusing on customers is a vital factor for the success of a business. Customer experience management (CXM) is increasingly regarded as a key construct for contemporary marketing research and management strategies (Wetzels *et al.*, 2023). A priority for modern businesses is enhancing their customers' experiences (their sensory, emotional, cognitive, behavioral, and social responses) regarding what is offered to them across their shopping journeys (Homburg *et al.*, 2017; Klink *et al.*, 2020; Lemon and Verhoef, 2016). Capgemini has reported that above 80% of consumers would like to spend more money to achieve a better experience. On the other hand, investigations have shown that 32% of customers move away from a trademark (even brands they love) after a single inconvenient experience, and such behaviors have negative effects on a company's financial performance (Klink *et al.*, 2020). Thus, it is easy to

figure out why customer experience management is considered a remarkably effective managerial approach (Klink *et al.*, 2020; Homburg *et al.*, 2017).

The CXM framework is a managerial approach for designing the CX. The ultimate goal of the CXM is to boost customers' long-lasting loyalty through the constant design and re-design of customer journeys (Homburg *et al.*, 2017; Ieva and Ziliani, 2018). Customer experience management is regarded as a new customer-oriented paradigm that can be utilized as a tool in transforming businesses. More than at any other time in history, customer experience has gained significance in terms of companies' success and advancement opportunities in the future (Hodgkinson *et al.*, 2021).

Whenever customers feel and think more positively about a company or its products, it is more likely that they will stay loyal to the company and its brands and make positive word-of-mouth marketing for them. This can bring about more asset turnover and profits for organizations that conveniently manage their customers' experiences (Weber and Hofsink, 2018).

Over the past decade, commercial and public organizations have focused on customer experience management in an unprecedented manner (Weber and Hofsink, 2018). Many businesses select experience-driven business models, and customer experience management has become a strategic priority for diverse businesses. Particularly, organizations offering financial services, including insurance companies, private banks, and wealth management companies, concentrate more than ever on customer experience to enhance their competitive advantage. Commodification and increased competition over products due to the arrival of newcomers have prompted organizations offering financial services to increasingly invest in training their staff, processes, and IT to enhance the experience design (Heshmati *et al.*, 2019).

The integrated nature of customer experience and, consequently, CXM, brings about diverse managerial challenges throughout a customer journey (Klaus, 2021; Wetzels *et al.*, 2023). Though many organizations have taken their first steps toward customer experience management, they are not usually aware of their weaknesses and strengths and their performance in that regard. Moreover, though customer experience management has attracted the attention of many researchers over the past few years, few studies have attempted to evaluate customer experience management. On the other hand, before any attempt to improve or manage something, it has to be measured (Klink *et al.*, 2020).

Key performance indicators are known as the most significant components of assessing the performance of an organization. They are typically utilized by organizations to reflect the key success factor in any particular activity an organization is involved. That is because they provide an immediate and plain understanding of the governing conditions and the performance of businesses. The indicators have gained prominence as tools to evaluate organizations, teams, individuals, and actions and can be used to compare the existing performance of an organization with what has been planned. Moreover, they offer the necessary feedback to make improvements in the future (Bahlooq, 2011; Khalilazar and Shami Zanjani, 2016).

The present study extracted the components of evaluating customer experience management by reviewing the related literature and conducting interviews with a group of experts. Then, the components were transformed into assessable metrics using the GQM approach and focus groups, and, finally, the key performance indicators of customer experience management for commercial banks were extracted from the metrics using the fuzzy Delphi method. The present study was among the first research projects intended to evaluate CXM and offer key performance indicators to take a step toward designing an instrument that could help the managers of commercial banks evaluate the maturity levels of their CXM. Indeed, the study aimed to answer the following questions:

RQ1. What are the evaluation components of customer experience management?

RQ2. Q2What are the evaluation metrics of customer experience management?

RQ3. Q3What are the key performance indicators of customer experience management for commercial banks?

The present study used a major 43-year-old Iranian commercial bank with more than 25,000 employees as the case. To the best of our knowledge, it was the first study that offered a set of KPIs for the evaluation of CXM. The study can have diverse contributions to practitioners. First of all, the 21 key performance indicators offered in the present study can be used in the design and development of an instrument (dashboard) to evaluate CXM in commercial banks. Secondly, the proposed conceptual model for the evaluation of CXM can provide the managers of commercial banks with insights into CXM. The rest of the present article is organized as follows: first, the theoretical foundations of the study are introduced. Then, the methodology, data analysis, and results are dealt with. Finally, the last section provides a discussion and conclusions.

2. Theoretical foundations and literature review

2.1 Customer experience management

The field of marketing has asserted the significance of experience for a long time. Dewey (1963) emphasized the importance of unique experiences in consumer decisions. Holbrook and Hirschman (1982) introduced the term "Customer Experience" to the marketing literature. The article by Pine and Gilmore (1998) on the Experience Economy increased interest in the concept of CX as a critical source of competitive advantage among researchers. Since that time, extensive research studies have been conducted on CX, turning it into the dominant marketing concept in marketing strategy. This transformation is in line with the claims of Abbott (1955) who said, "What people really desire are not products but satisfying experiences" (Dou *et al.*, 2019).

Many researchers have investigated the concept of customer experience. According to definitions offered in previous studies, customer experience can be considered as a customer's internal and mental responses (Meyer and Schwager, 2007) that arise from their general evaluation of the organization (Kuppelwieser and Klaus, 2020). This includes the customers' "cognitive, emotional, behavioral, sensory, and social" evaluation of what the company offers to them across their shopping journey (Lemon and Verhoef, 2016), during the pre-purchase, purchase, and post–purchase phases (Klaus and Maklan, 2013), and during any direct or indirect contact with an organization (Meyer and Schwager, 2007), which lead to the emergence of perceptions in their minds and influence their satisfaction, trust, re-visit, re-purchase, and loyalty (McLean Graeme, 2017).

Verhoef *et al.* (2009) asserted that CX is dynamic as past experiences influence the preset ones (Berry *et al.*, 2002; Hwang and Seo, 2016). Moreover, attitudes toward a certain experience can vary over time due to the establishment of relations with a company (Palmer, 2010). Thus, CXM requires more significant attention.

Over the past few years, the creation and management of customer experience have turned into indispensable areas to every company, particularly in companies in the services section, and the topic of customer experience has attracted the attention of many academics and marketing specialists (Grønholdt *et al.*, 2015). Organizations have started to recognize that responding to their customers' performance requests is no longer enough, but customers interacting with an organization seek convenient behavior, attention and personalized communication, smooth and comfortable operations, and favorable emotions.

Organizations typically illustrate customer experience through the customer journey (including a large number of touchpoints that indicate the customers' direct/indirect interactions with the organization) and endeavor to manage it (Lemon and Verhoef, 2016; McColl-Kennedy *et al.*, 2019; Voorhees *et al.*, 2017). Each distinct touchpoint includes customers' cognitive, emotional, behavioral, sensory, and social responses to their interactions with the organization. As a result, a static (or discrete) customer experience is obtained (Kranzbühler *et al.*, 2018). However, the effective management of customer experience requires organizations to simultaneously manage several touchpoints to discover and manage the moments of truth (critical interactions that can significantly influence their customers' experiences) (Holmlund *et al.*, 2020). Over the past few years, organizations have directed their attention to the management of discrete touchpoints along their customers' journeys towards managing the overall journey (Homburg *et al.*, 2017; Lemon and Verhoef, 2016). Consequently, customer experience management has emerged to create and offer a dynamic (integrated or overall) customer experience before, during, and after shopping/consuming services through channels and touchpoints (Holmlund *et al.*, 2020).

According to previous studies, customer experience management can be defined as the strategic management of creating customer experience (Schmitt, 2003; Verhoef *et al.*, 2009) to create value both for customers and companies (Verhoef *et al.*, 2009). The process acts as an umbrella that covers cultural stereotypes toward customer experience, strategic orientations toward designing customer experience, and organizational capabilities to perpetually enhance customers' experiences and achieve and maintain their long-term loyalty (Homburg *et al.*, 2017) and also involves understanding customers' views about the organization and the ecosystem surrounding it (Meyer and Schwager, 2007).

A lot of researchers in diverse areas like tourism, transportation, retailing, technology, and financial matters have investigated the topic (Garg *et al.*, 2012; Joshi, 2014; Kandampully *et al.*, 2018; Klaus, 2014; Lemon and Verhoef, 2016; Rahimian *et al.*, 2021). Nonetheless, it can be argued that very few studies have dealt with customer experience management compared to customer experience (Klink *et al.*, 2020; Lemon and Verhoef, 2016). In other words, the research in the field of customer experience management is inchoate compared to customer experience.

Organizations need instruments that enable them to become aware of their strengths/weaknesses and performance concerning CXM and evaluate their performance in that regard. Though the topic is highly significant, a gap is still felt regarding the studies that evaluate CXM. Cited in Klink *et al.*, Lemon and Verhoef called for more research on methods for the evaluation of CXM. Klink *et al.* (2020) introduced items for the evaluation of customer experience management and utilized it in a poll on 233 companies established in the U.S. in 10 different industries out of B2B and B2C manufacturing and service sectors to investigate the effects of customer experience management on the companies' financial performance. The results showed that customer experience management had positive effects on the financial performance of the investigated companies, and the effect could increase or decrease under diverse market conditions. In other words, the positive impact of customer experience management on financial performance increased under market turbulence, intense competition, and technological turbulence (Klink *et al.*, 2020). As the role of customer experience management is more obvious in the service sector due to the dependence of the quality of services on the power to interact, the banking industry has always taken pioneering roles in the improvement of its customers' experiences (Makudza, 2020).

2.2 Customer experience and customer experience management in the banking industry

Around the world, customer experience management has attracted a lot of attention in the banking industry (Makudza, 2020). Maklan *et al.* offered guidance to organizations on when and how to start customer experience management based on the experiences of the Royal

Bank of Scotland and provided managing directors with a practical way to measure and manage customer experience (Maklan *et al.*, 2017). Garg *et al.* conducted a study to measure customer experience management in Indian banks and proposed a scale consisting of 41 items and 14 factors. They stated that "convenience" was the most important factor involved in customer experience management in banks (Garg *et al.*, 2012). In Italy, Klaus *et al.* empirically offered a scale to measure customer experience management in the retail banking sector. The study classified customer perceptions into the "brand experience" (pre-purchase), "service experience" (purchase), and "post–purchase". Analysis was conducted using a statistical model based on the partial least squares method. The study tested three hypotheses: (1) customers' perceptions of the brand, service providers, and post–purchase experience have significant effects on customer experience management, (2) customer experience quality has a significant effect on marketing outcomes – i.e. the share of wallet, satisfaction, and word-of-mouth advertising, and (3) the overall effect of customer experience on marketing outcomes exceeds the separate effects of each dimension of customer experience. The results corroborated the above three hypotheses (Klaus *et al.*, 2013).

Khashan *et al.* carried out a study on seven Egyptian banks to investigate the relationship between smart customer experience (SCE), customer gratitude, continuance intention, and positive word-of-mouth (P-WOM) marketing. The study included 384 bank customers as participants. The data were analyzed using the partial least squares structural equation modeling (PLS-SEM). According to the findings of the study, it was shown that SCE directly increased customer gratitude, continuance intention for the adoption of smart services, and P-WOM (Khashan *et al.*, 2023).

According to Makudza (2020), most bank transactions in the UK aimed to offer convenient digital banking experiences to customers. Mbama and Ezepue conducted a study to investigate customers' perceptions of digital banking, customer experience, satisfaction, loyalty, and financial performance in UK banks. The study comprises of an overview of UK bank customers' perceptions of the above topics; utilize of banks' financial reports to get financial performance ratios; Multivariate Factor Analysis, Structural Equation Modeling, and ANOVA tests to examine research hypotheses on the relationships among the study factors. The main factors which decide customer experience in digital banking are service quality, functional quality, perceived value, employee-customer engagement, perceived usability and perceived risk. The results confirmed significant relationship among customer experience, satisfaction and loyalty, which is related to financial performance (Mbama and Ezepue, 2018). In India, customer experience has been promoted by the adoption of modern banking technologies. The same trend has been observed in terms of banking services in Africa. In a study conducted by Makudza to analyze and evaluate the effect of customer experience management on customer loyalty in the banking industry, regression analyses showed that there was a significant relationship between customer experience management and customer loyalty (Makudza, 2020). In Iran, Heshmati *et al.* conducted a qualitative study based on the grounded Theory to identify indicators and factors relevant to customer experience and tried to develop customer experience management for the banking services sector (Heshmati *et al.*, 2019).

Taking a look at the research literature shows that bank managers around the world have understood the significance of CXM. They have concluded that long-term profitability and progress rely on their ability to attract and maintain loyal customers. CXM is the management of customers' perceptions and their rational, physical, emotional, unconscious, and mental interactions with any particular section of an organization. Such perceptions influence consumers' behaviors, create lasting memories for them, and turn them into loyal customers (Rahimian *et al.*, 2021). Thus, CXM, which is practiced achieving and maintaining customers' long-term loyalty (Homburg *et al.*, 2017), has attracted a lot of attention, and numerous studies have been carried out to investigate it in banks around the world.

Banks, in the first place, need an instrument to evaluate their customer experience management to become aware of their strengths and weaknesses and their performance in terms of customer experience management. Despite what has been conducted so far, there is still a gap in the research literature. Thus, identifying the key performance indicators of customer experience management can be illuminating in that regard.

3. Methodology

The present study aimed to identify the key performance indicators of customer experience management in commercial banks during three stages using a mixed method (qualitative + quantitative) methodology. Figure 1 illustrates the stages of conducting the present study. The present study implemented methodological triangulation. Thus, first, the
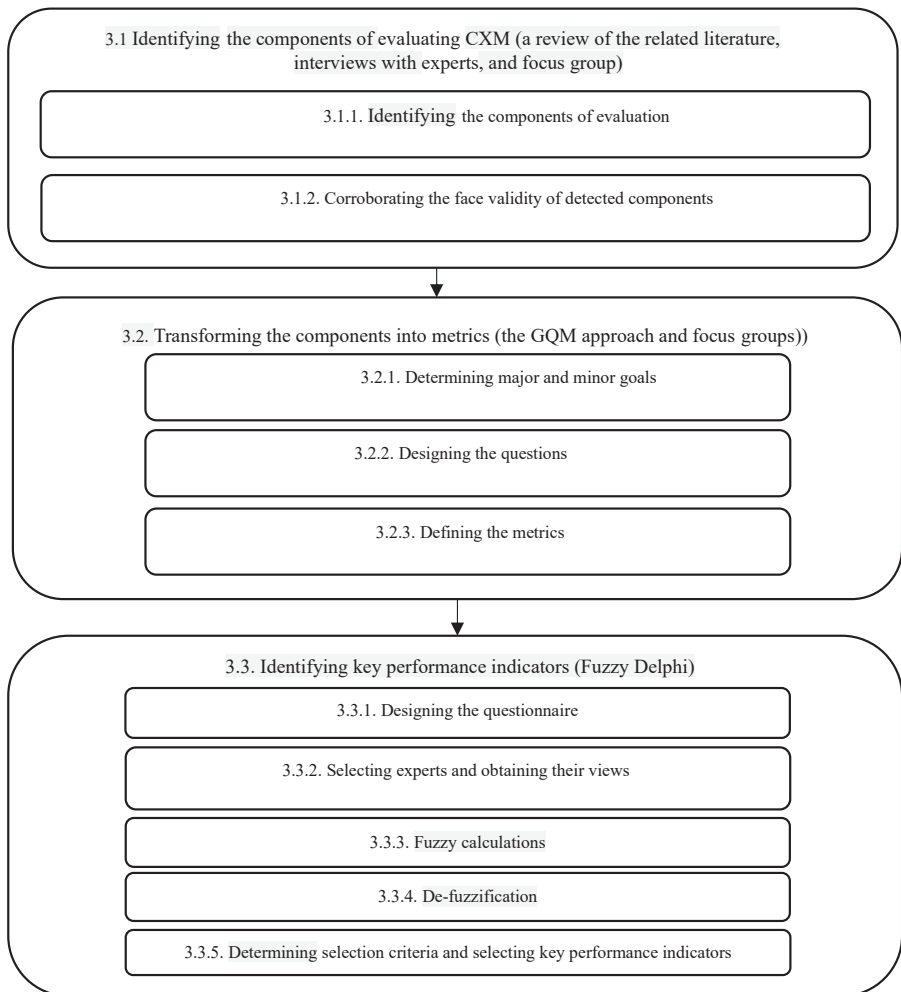

3.1 Identifying the components of evaluating CXM (a review of the related literature, interviews with experts, and focus group)

3.1.1. Identifying the components of evaluation

3.1.2. Corroborating the face validity of detected components

3.2. Transforming the components into metrics (the GQM approach and focus groups))

3.2.1. Determining major and minor goals

3.2.2. Designing the questions

3.2.3. Defining the metrics

3.3. Identifying key performance indicators (Fuzzy Delphi)

3.3.1. Designing the questionnaire

3.3.2. Selecting experts and obtaining their views

3.3.3. Fuzzy calculations

3.3.4. De-fuzzification

3.3.5. Determining selection criteria and selecting key performance indicators

Figure 1.
Research steps

Source(s): Figure by authors

components involved in the evaluation of CXM were extracted using library research. Then, 10 other components were identified after carrying out interviews with experts. Finally, a focal group was used for the corroboration of the findings (Appendix 1). In addition, the fuzzy Delphi method was implemented to select the key performance indicators involved in the evaluation of CXM (concerning the banking field). Moreover, the data triangulation was used. For this purpose, academic experts and organizational experts in the fields of CXM and business intelligence were consulted for data collection (Appendix 2).

3.1 The first stage involved identifying the components of evaluating customer experience management

3.1.1 First, 55 components were identified for evaluating customer experience management based on a review of the related literature. Then, 11 interviews were conducted with experts in the field of customer experience management to identify more components, and this resulted in the identification of 10 new components. Later, a total of 65 components were classified into 8 dimensions.

At this stage, the interviewees were made up of academicians specializing in "customer experience" who were selected using the snowball sampling technique. The potential participants were invited to the interviews through in-person visits or telephone calls, and the interviews were carried out in their workplaces. Eleven semi-structured interviews were carried out with the experts according to practical considerations like the availability of the experts and the concept of saturation. The latter occurred when the experts started to mention repetitive components, and no interview was likely to offer new components (Thoradeniya *et al.*, 2020). All interviews were audiotaped, transcribed, and analyzed using MAXQDA.

3.1.2 Then, the face validity of the identified components was corroborated by a focus group (consisting of experts made up of marketing academics experienced in customer experience management). The experts were asked to critically investigate the components in terms of the appearance, clarity, and accuracy of the terms. In this stage, small changes were made to some terms.

3.2 The approach is founded on the theory that all criteria need to be goal-driven (i.e., each metric has to be expressed in terms of the main goals), questions have to be extracted from the goals, and the selected criteria or metrics can be used in a measurable manner to answer the questions (Yahya *et al.*, 2017)

3.2.1 The main purpose of defining the metrics was to evaluate customer experience management in commercial banks. The results of the first stage of the study led to the identification of eight dimensions relevant to the evaluation of customer experience management, and then, the dimensions were utilized as the bases to divide the main goal of the study into eight sub-goals.

3.2.2 In this stage, a set of questions dealing with the sub-goals was defined based on the sub-goals and a focus group (consisting of experts in business intelligence and customer experience management in the banking industry).

3.2.3 A set of metrics was defined in the last stage of the GQM to answer the questions.

3.3 In the third stage, the fuzzy Delphi method, and a panel of experts in the customer experience management of the banking industry were used to select key performance indicators for commercial banks

The fuzzy Delphi method was developed by Murray *et al.* in 1985. The method combines the Delphi technique and the fuzzy analysis theory to reach a consensus and eliminate the issue of vagueness in experts' judgments so that the efficiency and quality of the traditional Delphi method can be enhanced using the theory of fuzzy sets (Padilla-Rivera *et al.*, 2021). The present study used a (five-stage) Delphi method to select the key performance indicators of customer experience management.

3.3.1 A questionnaire was designed based on the identified components.

3.3.2 Ten experts with sufficient knowledge and experience in the customer experience management of the banking industry were selected, and their opinions were taken and provided as a triangular fuzzy number:

$$w_{ik} = (a_{ik}, b_{ik}, c_{ik}), i = 1, 2, \ldots, m$$

3.3.3 The experts' opinions were aggregated using the following method:

$$w_k = (\alpha_k, \beta_k, \gamma_k), k = 1, 2, \ldots, n$$

Where $\alpha_k = \min(a_{ik})$, $\beta_k = \frac{1}{m} \sum_{i=1}^{m} b_{ik}$, $\gamma_k = \max(c_{ik})$

3.3.4 The fuzzy weight Sk was defuzzified using the simple center of mass method according to the following relationship to achieve the ultimate weight of each component:

$$S_k = \frac{\alpha_k + \beta_k + \gamma_k}{3}$$

3.3.5 A threshold value ρ needed to be specified so that the list of key performance indicators according to the experts could be selected and determined. This had to be in a way that if $Sk > \rho$, the kth component would be maintained, and if $Sk < \rho$, the kth component would be eliminated. According to Shen *et al.* (2010), threshold values rely on the fuzzy linguistic scale and users' preferences; in other words, ρ is smaller as the fuzzy linguistic scale series is higher, and vice versa (Padilla-Rivera *et al.*, 2021; Shen *et al.*, 2010). In the present study, a nine-fuzzy scale (Table 1) was utilized, and according to Zhang (2017), the threshold value for it was determined at $\rho = 5.6$.

4. Results
In the first stage, 65 components relevant to the evaluation of customer experience management were identified by reviewing the related literature and interviewing a panel of experts and were classified into eight groups, including customer experience strategy, customer experience identification, customer experience design, customer experience implementation, customer experience evaluation, governance, culture, and human resources (Figure 2).

Essential	(7,9,9)
Very important	(5,7,9)
Important	(3,5,7)
Moderately important	(1,3,5)
Slightly important	(1,1,3)

Table 1.
Linguistic variables of the importance weight

In the second stage, the GQM method was utilized to specify the goals, questions, and metrics developed for each goal for the purpose of evaluating customer experience management in commercial banks (Table 2).

The fuzzy Delphi method was used in the third stage to identify the key performance indicators of customer experience management in commercial banks. The views of 10 experts in the field of customer experience management on the metrics were obtained and defuzzified. The results, including the metrics of customer experience management and their ultimate weights, are given in Table 3.

Based on the threshold value $\rho = 5.6$ regarding the metrics presented in the questionnaire, six metrics, including the ratio of the number of feedbacks received from customers about their past experiences to a specified period in the past, the ratio of the number of research projects on customers' needs, expectations, and values to a specified period in the past, the ratio of the number of customers' registered views to their journeys, the ratio of the number of analytical reports conducted on customers' data to know them to a specified period in the past, the rate of interaction with various classes of customers, and the ratio of the number of the joint customer-driven values developed during a specified period, were eliminated, and the remaining 21 metrics were identified as the key performance indicator of customer experience management in commercial banks.

5. Discussion and conclusion

Bank managers around the world have concluded that long-term profitability and advancement depend on their ability to attract and maintain loyal customers (Wisskirchen
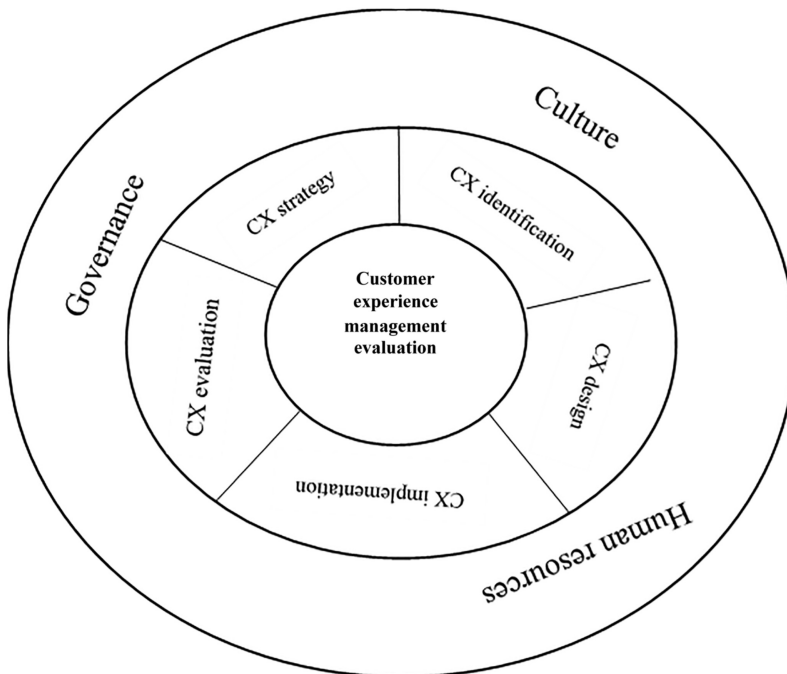
Source(s): Figure by authors

et al., 2006). Customer experience management, customer perception management, and intellectual, physical, emotional, unconscious, and psychological interactions with customers are important considerations in an organization. Such perceptions influence consumers'

Question	Metric
Goal: Evaluation of bank's attention to customer experience strategies	
Are strategies related to customer experience developed in the bank?	The number of customer experience strategies in one year
Goal: Evaluation of the bank's attention to customer experience identification	
Are there mechanisms to record and extract customer characteristics in the bank?	The ratio of the number defined personas to the number of customers in the bank compared to a specified period in the past
	The ratio of the number of customer classifications in the bank according to their characteristics (job, being natural/legal, income resources, interactions with the bank, and their profits for the bank – among others)
Is there a mechanism to collect customers' feedback regarding their previous experiences with the bank?	The ratio of the number of incomes received from customers on their previous experiences compared to a specified period in the past
Is there a mechanism to record and extract customers' needs, expectations, and values in the bank?	The ratio of the number of research projects on customers' needs, expectations, and values to a specified period in the past
Does the bank identify the lifecycle of its customers' journeys?	The ratio of the number of defined customer journeys to the number of products and services
Does the bank have an idea of their customers' opinions across their journeys?	The ratio of the number of customers' registered opinions to the number of customer journeys
Does the bank carry out data mining and analyze customers' (big) data to know its customers?	The ratio of the number of analytical reports on customers' data to know them to a specified period in the past
Does the bank try to know its customers by collecting and analyzing customers' indirect feedback regarding their experiences with the bank through social media?	The ratio of the number of analytic reports on the bank's social networks to a specified period in the past
	The rate of customers' participation in the bank's social networks
Does the bank try to know its customers by interacting with them/their associations and collecting information about customers' feedback regarding their previous experiences?	The rate of interaction with customers
	The rate of interaction with various groups of customers
Goal: Evaluating the bank's attention to customer experience design	
Does the bank carry out a scheme for the customer journey and touchpoints?	The ratio of the number of customer journeys to the number of services and products
Does the bank carry out a customized scheme for the customer journey?	The ratio of the number of customer journeys in each bank service to the number of customers
Goal: Evaluation of the bank in the implementation of the designs done for the customer experience	
Does the bank specify moments of truth and pain points in the customer journey?	The ratio of the number of detected moments of truth and pain moments to the number of defined customer journeys
Does the bank concentrate on high quality and customer satisfaction in terms of the provided services?	The index of the quality of products and services
	The index of customer satisfaction
How much is the degree of integration among customer data in various channels?	The ratio of the number of integrated channels to the overall number of customer data channels

Table 2.
Goals, questions, and metrics of customer experience management

(*continued*)

Question	Metric
How much of the interaction between customers and the bank in touchpoints is carried out smoothly?	The rate of exposure errors in touchpoints Customer effort score The average number of calls made to resolve problems in the touchpoints of customer journeys The average time spent solving problems in the touchpoints
Goal: Evaluation of the bank's attention to customer experience evaluation	
How much does the bank evaluate its customers' experiences?	NPS index
Goal: Evaluating the amount of attention paid by bank governance to customer experience	
How much does the bank pay attention to the allocation of resources to implement customer experience management?	The ratio of the budget allocated to the department of customer experience to the budget of the marketing department
Goal: Evaluation of the bank's attention to customer-oriented culture	
How much does the bank pay attention to the development of joint customer-driven values?	The ratio of the number of joint customer-driven values developed during a specified period
Goal: Evaluating the bank's efforts to focus employees on providing an excellent customer experience	
How much does the bank pay attention to training and empowering its personnel on the importance of customer experience?	The average number of hours spent on training and empowering employees about the significance of customer experience
How do bank employees get awarded (formally and informally) due to their customer-driven behavior?	The percentage of the employees that get awarded directly or indirectly for their customer-driven behaviors (speed, politeness, knowledge)

Table 2.

behavior, create lasting memories for customers, and turn them into loyal ones (Rahimian *et al.*, 2021). Thus, customer experience management, which aims to achieve and maintain customers' long-term loyalty (Homburg *et al.*, 2017), has attracted a lot of attention.

The business proverb "one needs to measure something before improving it" indicates managers' need for credible criteria in dealing with CXM. Organizations need instruments that enable them to become aware of their strengths/weaknesses and performance concerning CXM and evaluate their performance in that regard. Though the topic is highly significant, a gap is still felt regarding the studies that evaluate CXM. Cited in Klink *et al.*, Lemon and Verhoef called for more research on methods for the evaluation of CXM.

In response, the present study aimed to propose a set of metrics for customer experience management and select the most appropriate one for commercial banks. In this regard, 27 metrics of customer experience management were identified in eight main classes by reviewing the related literature and conducting interviews with experts in the field according to the Goal Question Metric approach. The identified metrics were investigated by a panel of experts who specialized in the customer experience management of the banking sector, and 21 metrics were selected as the key performance indicators of customer experience management in commercial banks. Key performance indicators are the main components in assessing the performance of the organization. Using them, the present performance of an organization can be compared with what has been planned, and the required feedback can be provided for future improvement.

Out of the studies conducted on customer experience management, the present study was more in line with the studies by Klink *et al.* (2020), which was a replica of the study by Homburg *et al.* (2017) and utilized 12 item to evaluate customer experience management. However, the difference was that the present study offered a coherent set of assessable

Indicators	Weight
The number of customer experience strategies in one year	7.47
The ratio of the number defined personas to the number of customers in the bank compared to a specified period in the past	6.33
The ratio of the number of customer classifications in the bank according to their characteristics (job, being natural/legal, income resources, interactions with the bank, and their profits for the bank – among others)	6.47
The ratio of the number of incomes received from customers on their previous experiences compared to a specified period in the past	5.27
The ratio of the number of research projects on customers' needs, expectations, and values to a specified period in the past	5.20
The ratio of the number of defined customer journeys to the number of products and services	6.47
The ratio of the number of customers' registered opinions to the number of customer journeys	5.40
The ratio of the number of analytical reports on customers' data to know them to a specified period in the past	5.00
The ratio of the number of analytic reports on the bank's social networks to a specified period in the past	6.67
The rate of customers' participation in the bank's social networks	7.60
The rate of interaction with customers	6.27
The rate of interaction with various groups of customers	4.93
The ratio of the number of customer journeys to the number of services and products	7.40
The ratio of the number of customer journeys in each bank service to the number of customers	5.93
The ratio of the number of detected moments of truth and pain moments to the number of defined customer journeys	6.60
The index of the quality of products and services	7.47
The index of customer satisfaction	8.33
The ratio of the number of integrated channels to the overall number of customer data channels	7.40
The rate of exposure errors in touchpoints	7.40
Customer effort score	7.47
The average number of calls made to resolve problems in the touchpoints of customer journeys	7.60
The average time spent solving problems in the touchpoints	7.40
NPS index	8.33
The ratio of the budget allocated to the department of customer experience to the budget of the marketing department	7.60
The ratio of the number of joint customer-driven values developed during a specified period	4.67
The average number of hours spent on training and empowering employees about the significance of customer experience	6.20
The percentage of the employees that get awarded directly or indirectly for their customer-driven behaviors (speed, politeness and knowledge)	7.53

Table 3.
Key performance indicators of customer experience management

metrics relevant to customer experience management. The present study provided valuable insight to organizations by offering the key performance indicators of customer experience management. They could be used to evaluate and improve their customer experience management. Particularly, an instrument was created for commercial banks in that regard.

Based on the obtained results, in this research, organizations are recommended to classify their activities around customer experience management into eight groups, including customer experience strategy, customer experience identification, customer experience design, customer experience implementation, customer experience evaluation, governance, culture, and human resources. Moreover, based on the results obtained from the view of the experts, banks are recommended to emphasize and pay more attention to the key performance indicators of customer satisfaction, the average number of calls to resolve a problem in the touchpoints of the customer journey, the NPS[F] index, and the ratio of the budget allocated to the department of customer experience to the budget of the marketing department.

Customer satisfaction is an item whose connection with customer experience has been emphasized both in the present study and other studies (Grewal *et al.*, 2009; Mbama and Ezepue, 2018; Pei *et al.*, 2020; Pine and Gilmore, 1998; Yoon and Lee, 2017). Klink *et al.* introduced customer satisfaction as one of the 12 items involved in the evaluation of CXM. Another important criterion proposed in the present study for the evaluation of CXM is the Net Promoter Score (NPS). Reichheld (2003) introduced the recommendation intention as the best criterion of customer loyalty and proposed the NPS in that regard. Using NPS, loyalty can be calculated using a simple question: "How likely is it that you would recommend this company to a friend or colleague?" On this basis, many studies have introduced NPS as a popular criterion to assess customer loyalty and a specific and highly efficient one for the assessment of customer experience (Lee *et al.*, 2019; Spiess *et al.*, 2014). Mbama and Ezepue emphasized the relationship between an improvement in the NPS and the promotion of customer experience and urged British banks to transform their passive customers into promoters and improve their NPS (Mbama and Ezepue, 2018). The metric of "the mean number of calls made to resolve an issue across customer experience touchpoints" and "the ratio of the budget allocated to the CX department to the one allocated to the marketing department" can be deemed similar to "the monitoring of an organization on its performance across various touchpoints" and "the resources required for the CXM", which are among the items used by Klink *et al.* to evaluate CXM.

Concerning future studies, researchers are recommended to utilize the key performance indicators extracted in the present study to design and construct a dashboard for the evaluation of customer experience management in commercial banks. Moreover, future studies can focus on identifying the key performance indicators of customer experience management in various organizations based on the metrics and methods proposed in the present study.

The scale proposed in the present study provided commercial banks with a theory-based diagnostic tool to measure the maturity of CXM. The CXM scale offers rather abstract theoretical concepts in the form of measurable KPIs and helps managers evaluate the level of CXM resources in their companies. Linking these KPIs with other key performance indicators in the company assists managers to evaluate the impacts of CXM on other areas of the performance of a bank. Thus, future studies are suggested to investigate the relationships between the indicators.

The present study had several limitations, the most important of which was access to experts who had enough time and willingness to participate in the study. On some occasions during the interviews with the specialists, evaluating CXM was equated with evaluating customer experience. Distinguishing the two concepts was another challenge in the present study, and the main researcher continuously tried to clarify the difference and prevent some specialists from inadvertently ignoring particular aspects of the study.

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Appendix 1

Component	Source
Customer experience strategy	
Targeting and providing the definition of the desired customer experience of the organization	Klaus *et al.* (2013)
	Grønholdt *et al.* (2015)
Identifying strengths, weaknesses, opportunities and threats (existing in the current CXM)	De Keyser *et al.* (2020)
	Ponsignon *et al.* (2021)
Identify priorities (actions to improve customer experience)	Ponsignon *et al.* (2021)
Developing a customer experience strategy	Grønholdt *et al.* (2015)
	Weber and Hofsink (2018)
	Klaus *et al.* (2013), Rahimian *et al.* (2021)
	Interview
Customer experience identification	
Understanding customer characteristics	Rahimian *et al.* (2021)
	Interview
Understanding the previous experiences of customers	Rahimian *et al.* (2021)
Understanding the needs, expectations and values of customers	Rahimian *et al.* (2021)
Identifying the customer journey life cycle	Ponsignon *et al.* (2021)
Understanding the customer across the entire customer journey	Kandampully *et al.* (2018)
	Klink *et al.* (2020)
Capture, store, organize and integrate customer experience data	Holmlund *et al.* (2020)
Data mining and analysis of customers' (big) data	Homburg *et al.* (2017)
	Holmlund *et al.* (2020)
	Ponsignon *et al.* (2021)
	Interview
Social media analysis to recognition the customer	Kandampully *et al.* (2018)
Interacting with customers and their communities	Homburg *et al.* (2017)
	Rahimian *et al.* (2021)
Recognition the context	De Keyser *et al.* (2020)
Customer experience design	
Customer experience design	Homburg *et al.* (2017)
	Rahimian *et al.* (2021)
	De Keyser *et al.* (2020)
Customer journey and touchpoints design	Lemon and Verhoef (2016)
	Homburg *et al.* (2017)
	Holmlund *et al.* (2020)
	Rahimian *et al.* (2021)
	Klink *et al.* (2020)
	Interview
Thematic design of the customer journey	Klink *et al.* (2020)
	Homburg *et al.* (2017)
Personalized customer journey design	Klink *et al.* (2020)
	Homburg *et al.* (2017)
	Rahimian *et al.* (2021)

Table A1.
Evaluation
components of
customer experience
management

Component	Source
Integrated customer journey design	Klink *et al.* (2020)
	Homburg *et al.* (2017)
	Ponsignon *et al.* (2021)
	De Keyser *et al.* (2020)
	Interview
Designing products and services in line with customer expectations	Interview
Designing products and services in line with brand identity	Homburg *et al.* (2017)
	Interview
Customer experience implementation	
Targeting in operational plans	Interview
Prioritizing touchpoints	Homburg *et al.* (2017)
	Rahimian *et al.* (2021)
	Lemon and Verhoef (2016)
	Klink *et al.* (2020)
	Holmlund *et al.* (2020)
	Patrício *et al.* (2011)
Identify moments of truth and pain points in the customer journey and opportunities for improvement	De Keyser *et al.* (2020)
	Klaus *et al.* (2013)
	Interview
Adopting an agile approach in service delivery	Interview
Arousing emotions and creating more pleasure for the customer in connection with the bank	Homburg *et al.* (2017)
services quality and customer satisfaction	Homburg *et al.* (2017)
	Interview
Focus on information transparency for the customer	Homburg *et al.* (2017)
Clarification of instructions and circulars for the client	Interview
Accessibility of customer history between different channels	Homburg *et al.* (2017)
Integration of offline and online channels	Homburg *et al.* (2017)
Flexibility of touchpoints	Homburg *et al.* (2017)
Implementation of customer-oriented initiatives and innovations	Grønholdt *et al.* (2015)
Ease of transfer between touch points	Homburg *et al.* (2017)
Integration of channels (integration of customer data in different channels)	Homburg *et al.* (2017)
	Interview
Customer experience evaluation	
Determining customer experience key performance indicators	Holmlund *et al.* (2020)
	Homburg *et al.* (2017)
	Interview
Identify market benchmarks in customer experience	Homburg *et al.* (2017)
Explaining a framework for evaluating the quality of customer experience	Klaus *et al.* (2013)
	Interview
Share customer experience indicators with employees	Homburg *et al.* (2017)
Evaluation of products and services compared to competitors	Interview
Determining behavioral indicators and indicators related to the product or service in evaluating the customer experience	Interview
Creating a capabilities evaluation center (consisting of operational manager)	Ponsignon *et al.* (2021)
Operational performance management	Ponsignon *et al.* (2021)
	Klink *et al.* (2020)
	Klaus *et al.* (2013)
	Interview
Checking the sensitivity of touch points to the field	De Keyser *et al.* (2020)

Table A1. (*continued*)

Component	Source
Compatibility of touch points with the brand identity (Are the touch points compatible with the brand identity?)	Homburg *et al.* (2017) Rahimian *et al.* (2021) Holmlund *et al.* (2020)
Checking and monitoring the quality of touch points and stages in the customer journey	Homburg *et al.* (2017) Klink *et al.* (2020) Holmlund *et al.* (2020) De Keyser *et al.* (2020) Interview
Modify, improve, or remove touch points	De Keyser *et al.* (2020)
Record customer evaluation of customer journey	Maklan *et al.* (2017)
Monitoring the organization's ecosystem and comparing the organization with competitors	Lemon and Verhoef (2016) Rahimian *et al.* (2021) Homburg *et al.* (2017) Lemon and Verhoef (2016) Klink *et al.* (2020) De Keyser *et al.* (2020)
CX Continuous regeneration capability	Homburg *et al.* (2017) Klink *et al.* (2020) Ponsignon *et al.* (2021) Interview
Governance	
Designate a coordinator in customer experience management	Ponsignon *et al.* (2021)
Senior management involvement in customer experience management	Grønholdt *et al.* (2015)
Coordination in different organizational capabilities	Klink *et al.* (2020)
Identifying and allocating financial, technical and human resources to implement customer experience management	Ponsignon *et al.* (2021) Klink *et al.* (2020) Maklan *et al.* (2017)
Coordination in various customer journey performance indicators	Klink *et al.* (2020)
Customer oriented attitude in instructions and directives	Interview
Comparing the current situation with the desired one and analyzing the commitment gap	Maklan *et al.* (2017) Interview
Customer oriented	Interview
Culture	
Creating a customer- driven culture	Homburg *et al.* (2017) Klink *et al.* (2020) Rahimian *et al.* (2021) Grønholdt *et al.* (2015) Interview
Development of customer- driven common values	Chakravorti (2011)
Internalization of brand values	Interview
Organizational culture change management	Chakravorti (2011)
Human resources	
Training and empowering employees on the importance of customer experience	Grønholdt *et al.* (2015), Ponsignon *et al.* (2021)
Evaluation of customer- driven behaviors of employees (speed, politeness, knowledge)	Ponsignon *et al.* (2021) Interview
Using formal and informal rewards to strengthen customer- driven behavior (speed, politeness, knowledge)	Interview

Table A1.

Appendix 2

Experts	Age	Expertise	Customer experience	BI	Banking industry
Interviewee	40–50	Academic specialist in the field of "customer experience"	*		*
Interviewee	40–50	Academic specialist in the field of "customer experience"	*		
Interviewee	40–50	Academic specialist in the field of "customer experience"	*		
Interviewee	30–40	Academic specialist in the field of "customer experience"	*		*
Interviewee	30–40	Academic specialist in the field of "customer experience"	*		
Interviewee	40–50	Academic specialist in the field of "customer experience"	*		
Interviewee	40–50	Academic specialist in the field of "customer experience"	*		
Interviewee	30–40	Academic specialist in the field of "customer experience"	*		
Interviewee	40–50	Academic specialist in the field of "customer experience"	*		
Interviewee	40–50	Academic specialist in the field of "customer experience"	*		
Interviewee	40–50	Academic specialist in the field of "customer experience"	*		
Participant in the focus group	30–40	Academic specialist in the field of "customer experience"	*		
Participant in the focus group	30–40	Academic specialist in the field of "customer experience"	*		
Participant in the focus group	30–40	Academic specialist in the field of "customer experience"	*		
Participant in the focus group	30–40	Academic specialist in the field of "customer experience"	*		
Participant in the focus group	30–40	Academic specialist in the field of "customer experience"	*		
Participant in the focus group	30–40	Academic specialist in the field of "customer experience"	*		
Participant in the focus group	40–50	Executive manager of bank		*	*
Participant in the focus group	30–40	Marketing expert	*		*
Participant in the focus group	20–30	Marketing expert	*		*
Participant in the focus group	30–40	BI expert		*	*
Questionnaire respondent	40–50	Marketing expert	*		*
Questionnaire respondent	30–40	Marketing expert	*		*
Questionnaire respondent	20–30	Marketing expert	*		*
Questionnaire respondent	30–40	Marketing expert	*		*

Table A2.
Expert information

Experts	Age	Expertise	Customer experience	BI	Banking industry	
Questionnaire respondent	30–40	Marketing expert	*		*	Customer experience management evaluation
Questionnaire respondent	30–40	Marketing expert	*		*	
Questionnaire respondent	30–40	Marketing expert	*		*	
Questionnaire respondent	30–40	Marketing expert	*		*	
Questionnaire respondent	30–40	Marketing expert	*		*	
Questionnaire respondent	30–40	Marketing expert	*		*	Table A2.

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