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# Designing a Holistic Customer Experience Program

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## EXECUTIVE SUMMARY

*Customer experience (CX) as a challenge or an opportunity appears frequently in a variety of corporate discussions on business strategy, marketing strategy, and customer service. The current field of CX has primarily emerged from the rapid technological advancements and the resulting consumer empowerment through almost-free social-media accessibility by consumers-at-large. Accordingly, competitive and evolving organizations need to develop CX programs to strengthen their CX-related performance that may be reflected in customer attraction, customer acquisition, and customer retention. The current paper discusses a holistic CX framework and design along with some implementation suggestions for such competitive and evolutionary organizations.*

**Keywords:** Customer Experience Program, Customer Journey Map, Root Cause Analysis, Text Analytics, Net Promoter Score, And Customer Effort Index.

## INTRODUCTION

Customer experience (CX) has become a hot topic of discussion in the corporate board room today. Since the mid-2000s, the topic has been appearing with increasing frequency in a variety of corporate discussions on business strategy, marketing strategy, customer service, and general business management (Batra 2016). As customers' expectations from interactions with businesses have been evolving at a rapid pace in today's dynamic era of consumer empowerment and digital disruption, a variety of modern CX programs have been created, and more programs are in the making. The blending of new strategic thoughts with digital technology advancements provides a tremendous opportunity for practitioners to capitalize on this emerging frontier of customer service excellence.

Customer centricity in organizations is not new. It has been an organizational focus for the last sixty years with periodic primary emphasis on its sub-dimensions, such as customer satisfaction, service quality, relationship marketing, customer life time value, customer delight, etc. However, the current emerging dimension of CX is much broader in scope, which has resulted from the recent advancements in digital technology and the resulting consumer empowerment. The technological advancements in the form of digital disruption have led to the creation of numerous innovative CX-related digital products (such as software-based customer journey map, text analytics, predictive analytics, prescriptive analytics, descriptive analytics, big data analytics, self-learning video analytics, true driver analysis, and consumer data mining) that are available through some popular digital vendors, such as MaritzCX, Forrester, and CXNetwork. Further, the omni-presence of social media and mobile platforms along with their easy and free-of-charge (or low-priced) accessibility to consumers have empowered the consumers, thereby raising their expectations from the corporations.

The rising expectations of the empowered consumers place pressures on organizations to continually evolve from the mere CX-tactical organizations to CX-focus organizations to CX-adaptive organizations. Accordingly, the evolving organizations need to consider the holistic CX programs for better CX-related performance in terms of customer attraction, customer acquisition, customer retention and customer loyalty, increased share of customer wallet, increased revenue, profitability, and business growth. The current paper discusses a holistic CX framework and design along with some implementation suggestions for such evolutionary organizations.

## A HOLISTIC CX FRAMEWORK

What is CX? What is a holistic CX program? And, what different elements are included in a holistic CX framework? As stated earlier, customer centricity as a topic of discussion may not be new, however, its current form of customer experience (CX) has evolved from the customer centricity's different versions in the past. The earlier forms of corporate discussion for the last sixty years have been customer buying behavior process models, customer satisfaction and loyalty, service quality, relationship marketing, customer relationship management, customer centricity, and customer engagement. CX can be looked at as a much broader concept than its predecessors. In terms of academic research terminology, CX is a multidimensional construct that focuses on a customer's cognitive, emotional, behavioral, sensorial, and social responses (to a firm's offering) during the customer's entire purchase journey (Lemon & Verhoef, 2016). In other words, customer experience may be conceptualized as a "customer's journey" with a business firm over time during the customer's purchase cycle across multiple touch points. The total customer experience can also be conceptualized as a "dynamic process." This iterative and dynamic CX process flows from pre-purchase stage (need recognition, search of alternatives, consideration) to purchase stage (choice, ordering, payment) to post-purchase stage (consumption, usage, engagement, service requests). This process also incorporates past experiences (previous purchases) as well as the external influences (climate, economy, culture, unemployment). In each of the three purchase stages above, customers may experience numerous touch points, not all of which are typically under the business firm's control. Lemon and Verhoef (2016) suggest four categories of such customer touch points—*brand-owned*, *customer-owned*, *partner-owned*, and *social/external/independent*—that the customers might interact with in each stage of the customer experience. The brand-owned touch points are managed by the firm, and are under the firm's control (for example, media-related touch points such as advertising, websites, loyalty programs; and, marketing-mix related touch points such as attributes of product, price, packaging, service, sales force). The partner-owned touch points are customer interactions during the customer experience that are jointly designed, managed, or controlled by the firm and one of its partners (for example, marketing research agencies, advertising agencies, multi-channel distribution partners, communication channel partners, and multi-vendor loyalty program partners). The customer-owned touch points are customer actions that are part of the overall customer experience, but that the firm or its partners do not influence or control (for example, numerous customer-generated and uploaded videos on YouTube, and the customer's choice of payment method). The social/external touch points include other customers' viewpoints and opinions, peer influences, third-party information sources, such as the TripAdvisor review site, and brand "likes" on social media. Depending upon the nature of the product/service, or the customer's own journey, the strength or importance of each touch point category may differ in each purchase stage. Firms need to ask the customers directly which touch points are important for the customers, rather than assuming what managers imagine to be important.

The above-stated CX journey analysis serves as a guide to examining the customer experiences over time during the customer's entire purchase cycle. This analysis guides the firm in understanding the effects of different touch points on the customer's experience. The analysis further helps the firm in understanding its performance in the area of customer experience *in its totality*.

In today's context of rapid digital advancement, a holistic comprehensive CX program utilizes the latest CX software platforms and the best research and consulting expertise available in the market. Apparently, a holistic CX program is much more than a mere CX tool used in an ad hoc fashion to gather CX data and feedback. It is not labeled as a holistic CX program if a company occasionally uses a customer survey to gather feedback and does not do much based upon the data gathered. Alternatively, gathering data from employees about customer feedback, and reporting it to selective people in the organization is also not a comprehensive holistic CX program. Numerous elements that ought to be included in a holistic CX program are identified and discussed below.

### CX Program Vision

A holistic CX program has a clearly articulated vision. Illustratively, a CX program vision could emphasize that all internal stakeholders are joined together in ensuring continual in customer experience.

### CX Program Goals

In a holistic CX program, a business firm needs to identify specific annual strategic objectives which should emphasize customer-centricity in its organizational goals. For example, "Improve customer experience so that fewer customers churn

prematurely, resulting in increased revenue of 5 percent annually.” Specifically, a firm may consider goals in each of the following areas:

- Customer experience-orientation—for example, improve the overall customer experience, improve an aspect of the customer experience, improve customer experience for a specific business unit or line of business, and/or respond to and alleviate negative customer experiences.
- Employee engagement-orientation—for example, build a culture of customer-centricity within the organization, and/or raise sensitivity to the customer experience among the internal stakeholders.

### CX Processes

A firm may make sure that its existing organizational processes have customer-orientation. For example, the processes need to be designed to maximize not only the operational efficiency but the customer experience also; the processes need to be well-documented so that both new and existing employees can identify customer expectations and their delivery modes; employees need to have strong knowledge of customer-related processes; and, the application of these processes should be consistent from one customer interaction to the next customer interaction (Inman & Bolger 2017).

### CX Big Data and Feedback

CX “big” data comes from different sources: traditional surveys (for example, transactional survey, relationship survey, employee survey), mobile platform, social media, corporate Intranet and Internet websites, customer contact/call center feedback, customer-specific account information, purchase history, and payment history. Structured as well as unstructured feedback and comments from different sources such as customers, employees, lines of businesses, CX- and operational-processes—when integrated and displayed on digital software platforms—are fashionably and respectively known as the Voice of Customer, Voice of Employees, Voice of Business, and Voice of Process. The integration of this “big data” from different sources is useful as it can be analyzed and viewed (on digital dashboards) side-by-side for broad consumption across the organization. Numerous analytic processes, tools, techniques, and metrics assist in assessment, integration, and interpretation of such big data and customer feedback and are explained in the subsequent sections.

**Basic CX metrics:** Organizations from different industries use different types of basic CX quality metrics. For example, retailing and service organizations may use these basic CX metrics—*customer response time* (How long does an organization take to respond to customers? Customers usually expect a reply within a week, but an organization that wants to differentiate itself from competition can reply within 24 to 48 hours); *customer satisfaction metric*—this simple metric can be used directly following the transaction when the experience is still fresh in customers’ minds; *product/service findability* (how long does it take for customers to find what they are looking for online or in the store—a faster findability brings them back to the organization for more business), *visitor-intent completion* (what was the customer’s intent in coming to the organization site, and was that purpose fulfilled?), and *customer referrals* (how many customer referrals are received by the organization?—an indirect metric of customer loyalty)

**CX research tools:** These tools are typically used by CX-focused organizations and include root cause analysis, customer journey map, net promoter score, human sigma score, customer satisfaction index, and customer effort index.

- Root cause analysis (RCA): RCA may be conducted on information from numerous data sources such as Voice of Customer, Voice of Employee, Voice of Process, CX traditional surveys, CX relationship surveys, and CX transactional surveys. RCA helps in identifying any common themes against all data sources, and looks for recurring seasonal trends. For a large service organization, RCA of unstructured comments and feedback provided by customers is rooted in a four-step systematic method. First, articulate problem statement—what is the firm trying to accomplish, that is, what is the problem whose root causes, if identified, will help the firm in solving the customer experience problem. Second, conduct data analysis—that is, utilize analytics and tools that will help the firm know that a change will result in improvement. For this purpose, the process is something like this: a group of people conduct RCA using analytic tools; they identify 2 or 3 theoretical observations for a root cause; based upon the root cause, they identify initiatives (such as complaint/problem incident reduction, cost to serve, and demand management), and evaluate their impact; they engage partners in risk, compliance, product, channel and technology as needed; and then, they define measures of success. Third, they identify process changes that can be made, and that will result in improvement from the viewpoint of customer. For this purpose, the process is something like this: a group of people generate and select solutions/changes; develop implementation, training, communication and readiness plans; update process flows,

policies and procedures; share the proposed solution with the RCA leader and management team for approval; launch a significant initiative assessment process; pilot, if necessary, to validate results; and, monitor measures of success post implementation. Lastly, the firm's specific line of business raises cross-functional issues/concerns; and, shares customer experience impacts/successes with the remaining stakeholders in the organization.

- **Customer journey map:** Customer journey mapping is an increasingly popular strategic management tool recognized by both academicians and practitioners for its usefulness in understanding an organization's customer experience program. Further, a customer journey map has become a strategic tool for service innovation and visual depiction of how a service system can work together at each touchpoint to improve a customer's experience (Rosenbaum and others, 2017).
- **Net promoter score (NPS):** NPS is a simple metric that assesses the customer experience in just one simple question, using a 0 to 10 scale: "How likely is it that you would recommend X (company, brand) to a friend or colleague?" It analyzes the responses, and categorizes the respondents into three groups: Promoters (9-10 rating), Passives (7--9 rating), and Detractors (0--6 rating). The percentage of Detractors is then subtracted from the percentage of Promoters to obtain a NPS. NPS can be as low as minus 100 when everybody is a Detractor, or as high as plus 100 when everybody is a Promoter. The metric has gained popularity in the corporate world because it is simple to understand, and is not subjected to proprietorship rights by its developers Frederic Reichheld and Dr. Laura Brooks (Reichheld, 2016).
- **Human sigma score:** Though the human sigma score is used by numerous large organizations because of its blended focus on two major elements of customer experience (namely, customer engagement and employee engagement), this tool has not gained main-stream popularity as it is still maintained as a proprietary tool by John H. Fleming and Jim Asplund along with Gallup Consulting, Incorporated. Human Sigma is well-understood when paralleled with the six-sigma standard which is largely applied to the manufacturing sector to raise the product quality excellence. Six Sigma has changed the face of manufacturing quality, creating excellence by reducing variance in finished goods, revolutionizing businesses, and boosting profits. Human Sigma is poised to do the same for sales and service organizations (Fleming and Asplund, 2007). It aims at driving success by effectively managing the moments when employees interact with customers. The Human Sigma business model, when operationalized, involves measuring the extent of employee and customer engagement, and the quality of employee-customer encounter. The interaction of employee engagement average scores and customer engagement average scores produces one HS metric that is an indicator of enhancement in business growth and financial performance of sales and service organizations (Batra, 2015).
- **Customer satisfaction index:** According to [www.theacsi.org](http://www.theacsi.org), the American Customer Satisfaction Index (ACSI) is the only national cross-industry measure of customer satisfaction in the United States, which is based upon roughly 180,000 customers being surveyed each year about the products and services that they use the most. ACSI's scientific model provides key insights across the entire customer experience. The ACSI model as developed by the University of Michigan's Ross School of Business is a cause-and-effect econometric model with indices for drivers of customer satisfaction on the left side (customer expectations, perceived quality of a product/service, and perceived value--that is, product quality relative to price), satisfaction (ACSI) in the center, and outcomes of satisfaction on the right side (customer complaints and customer loyalty, including customer retention and price tolerance) (ACSI, n.d.).
- **Customer effort index:** A higher customer effort is the reflection of the customer's negative interaction experience. The higher the customer effort--that is, the harder a customer must work to understand, purchase, and use a product or service--the more is the extent of customer's interaction dissatisfaction, negative word of mouth, and disloyalty (Georgesesen, n.d.). Further, customer effort is directly related to increased operational costs by the business firm. Every additional contact or channel used, every incidence of non-resolution, every time a customer is on hold, there is an incremental operational expense. An action-oriented implication is to do what customers expect from the organization/brand, that is, solve their problems quickly. Customer effort is an actionable metric. That is, it provides focused and diagnostic information about the strengths and weaknesses of service and interaction quality, thereby, suggesting process-improvement efforts. Georgesesen (n.d.) states that the customer effort index incorporates multiple dimensions that make up the customer-employee interaction. For example, the customer effort index can be created by combining three service factors, namely, the lack of first contact resolution, taking too long, and having to repeat. The more of these three factors reflect the more customer effort, which, in turn, can exacerbate a poorly handled contact to the point that the customer stops doing business with the firm.

**CX analytics:** Many digital vendors offer a variety of analytic solutions across a spectrum of statistical techniques, digital technologies, and software applications. These digital solutions fall into the areas of data cleansing, data mining, opinion mining, text analytics, survey statistical analytics, predictive analytics, prescriptive analytics, self-learning video analytics,

visualization, and reporting through dashboards, etc. Four major types of CX analytics as prevalent in the digital market are discussed below.

- **Text analytics:** Brion Scheidel, Text Analytics Director at MartitzCX, states that 80 to 90 percent of the big data deluge in today's digital market is unstructured data that comes from sources such as survey verbatim, call center notes, website forms, social media, and online reviews. Numerous text analytic software are available in the digital software market, which help categorize this data, and can help detect emerging dynamic themes in an organization. These software assist in understanding customer emotions, gaining a 360-degree view of the customer, capturing diversity of discussion in social media, and identifying "hot customer issues" that may include customer defection, legal threats, non-compliance with regulations, and questionable product quality.
- **Descriptive analytics:** These analytics range from traditional ad-hoc reporting to online analytical processing (OLAP) and dashboard-based advanced visualization techniques. Such solutions give hindsight—telling what happened in the past, so it is easy to identify tactics and processes that can be avoided or sought in the future.
- **Predictive analytics:** These analytics are offered by software vendors, data scientists, and predictive modelers who can identify cause and effect through a variety of statistical techniques. These techniques answer the question why something happened, or what is likely to happen. These modeling techniques provide insight about what might be done differently next time to achieve a different outcome.
- **Prescriptive analytics:** The field of operations research provides the techniques for prescriptive recommendations that answer the question "How to optimize the solution to a given problem?" Shaheen Dil, a managing director of Protiviti's advanced analytics practice, states that "as computing power has become abundant, the discrete solutions of linear, integer, and mixed-integer programs have given way to stochastic optimization techniques that allow the determination of optimal outcomes given uncertain inputs" (Dil, 2016).

### **Customer-centric Culture**

Corporate management needs to develop a customer-centric culture throughout the organization. Typically, the *belief* aspect of the customer-centric culture is easy, as nearly all employees in any organization typically affirm that they believe in delivering a good customer experience. However, it is much difficult to *commit* to the customer-centric culture (Inman & Bolger 2017). Cultural commitment is usually reflected in customer-focused process design, resource allocation for customer-centricity, the words and actions of leadership supporting customer-engagement, frequency of senior leaders' engagement with customers, and commitment to act on voice of customer insights. Creating a customer-centric culture in the organization means making plan for each of these items, ensuring accountability for success, and tracking progress periodically. For example, in the context of employee-recruitment, a customer-centric company needs to hire employees not only with a specific technical skill set, but with customer-orientation also. Insights gained from the customer feedback program should be shared regularly with all employees. The company should align its employee rewards, recognition, and performance reviews around customer impact. This ultimately shows to the employee that the leadership considers customer-focus to be their highest priority.

### **Customer Response**

Whether experience-related customer feedback is solicited, unsolicited, purchased, or statistically-derived, customers need to be shown that their feedback is important and recognized. A simple immediate follow-up with the customer who provided a positive, neutral, or slightly negative feedback demonstrates that the organization is listening, and it cares and values the customer's business. Some organizations give "just-fix-it" authority to their employees for an immediate "repair" of the customer's negative experience. After the issue has been resolved, the employee is expected to generate a corrective-idea for the organizational process—which in turn is sent "higher up" for consideration for permanent re-tuning of the organizational processes and tactics.

### **CX-focused Structure**

An organization should make sure that its CX-focused employees and managerial staff who have gradually acquired significant customer insights (which can be used to improve the customer experience) are given an ample authority to dictate their creative suggestions upon the lines of business within the organization. As observed by two CX experts (Inman & Bolger 2017), this authority is usually denied to the CX managerial staff which is a common mistake committed by numerous organizations. However, some CX-committed organizations have begun to fine-tune their organizational structures to include a "Journey Product Manager" (the customer journey's economic and creative steward with an ultimate accountability for the journey's

business performance, managing it the way a traditional product is managed in the organization) who reports to the “Customer Experience Officer/Executive” who, in turn, heads the “Office of the Customer” at the corporate level. In such a “Journey Management Organization,” the “Journey Product Manager” is supported by a traditional product manager as well as a “Journey-focused Strategist” who helps identify customer journey investments and customer segments to focus on and who prioritizes current customer journeys for digital development and spots opportunities for new ones. To build successful customer journeys, the journey management organization relies on “scrum teams” of specialists from across IT, analytics, operations, marketing, and other functions. The teams are execution-oriented, fast and agile, and constantly testing and iterating improvements (Edelman & Singer 2015).

### **Action Planning and the Continual Improvement Loop**

Action planning and the continual improvement loop: CX-focused organizations convert gradually acquired CX insights into CX action program through employee engagement, employee feedback and recognition, human sigma minimization, and assurance of customer-centric culture throughout the organization. They refine CX targets and objectives based upon feedback, insights and actions (improved CX). They continually refine and repeat all of the steps and dimensions to strengthen the CX program as if the CX program were a non-stop spiral loop.

## **SUGGESTIONS FOR THE CX PROGRAM IMPLEMENTATION**

### *Bring extreme personalization to customer experience (CX)*

The world of marketing has been moving from the era of mass communications to that of one-to-one marketing. Recently, the blending of customer centricity with personalization has picked-up momentum because of the advancement in technology. In this context, the convergence of Internet of Things and Artificial Intelligence is noteworthy. The Internet of Things provides connectivity, as well as the exchange of data between the connected objects. Artificial Intelligence allows for the simulation of human intelligence with a computer that learns through data. The convergence of the two technologies facilitates the personalization of customer experience. In the personalization context, Turner (2017) provides numerous intuitive managerial suggestions.

- For example, personalization does not mean “sprinkling” just the customer’s name here and there in a firm’s communications. To be meaningful, it has to be purpose-driven for the customer. It must deliver the right product or service-content at the right time in the customer purchase journey. Personalization must make customer experiences simple and painless.
- As customers interact with business firms through multiple channels, and as they have a preferred channel at the moment of a specific need, business firms must demonstrate omni-channel presence to the customer in their personalized communications.
- Businesses should bring personalization to the customer experience process as well. For example, in the case of traditional CX survey process, a business firm should utilize the customer information it already has, that is, the firm should not ask questions about the customer information already collected and compiled into a single customer portfolio. In the case of a transactional survey, the firm should pre-populate relevant details about the transaction such as the date of the transaction, location of the transaction, and channel used for the transaction. They should center additional questions only on further transactional details and experiences.
- The emerging Natural Language Processing by machines in the form of *chatbots* helps mimic the feel of a real conversation with a customer. Utilize this artificial intelligence device for personalization to the extent relevant and feasible.
- A business firm should “leverage geolocation technology to gather CX feedback and enrich the customer experience through location-based surveys close to the point-of-sale.” Using GPS or beacon technology to identify customers at the point of experience, firms can gather higher quality customer feedback in the moment when the recall is at its peak. The location-based surveys using mobile phones can also capture photos, videos and the GPS co-ordinates adding texture to the customer experience.
- Businesses need to keep up with emerging communication modes and preferences for CX feedback. As more customers become digital natives, at a minimum, CX surveys need to be fully optimized for the mobile experience.

So, survey delivery needs not only be through emails, website, online and SMS, but also through messenger app options such as Facebook Messenger, WeChat and WhatsApp.

Net, firms need to demonstrate to customers through the CX process that they value their time, listen to them, communicate on their terms, and engage with them when the time is right. Extreme personalization through the advanced technology has become unavoidable.

#### *Understand the emotions connected with customer experiences*

To strengthen the customer experience, CX professionals need to acknowledge and understand the emotions that customers may be experiencing during the purchase journey. This enables an organization to make better strategic and tactical decisions; an emotion may provide cues for an employee to “humanize” the customer interaction. For example, in the case of a negative experience, the associated emotion may be fear, anger, frustration, or grief. If a specific situation causes such emotions, the employee may address them by staying calm, speaking slowly, sympathizing, or using effective questioning techniques. Specifically, situations that cause the fear emotion may be addressed through assurance supplemented by educational brochures, warranties, and customer testimonials (Pflughoeft & Whitaker, 2017).

Here, it is worth noting that some industries and transaction types are more prone to emotional intensity than others. For example, a trip to Walt Disney is an emotional experience by nature, whereas a visit to convenience store is more about functional needs than feelings or emotions. The utilities and fast-food restaurants are low-emotion businesses, whereas the high-end restaurants and automotive are high-emotion businesses.

#### *Provide omni-channel customer experience as much as possible*

Advancement in technology has made customers’ experience feasible through multiple channels such as social, mobile, web site, and contact centers. Consistent with rising customer expectations, it is imperative for companies to deliver the uniform customer experiences regardless of channel, path, or touch point. That is, through a consistent, and seamless omni-channel experience, customers should be able to complete the same tasks, obtain the same information, and experience the same outcomes regardless of their path. At somewhat a more advanced level, companies must *know* their customers, that is, they do not merely track experiences, but integrate experiences across channels. Illustratively, in an integrated system, a customer while talking to a representative at the call center realizes that the dialog with the rep started from the point where the customer left his recent online activity—as the representative apparently was already well-aware of what the customer had earlier done online. Note that a commitment to such an integrated consistent omni-channel customer experience may require a significant financial investment by the company. However, it may be further noted that in today’s regulatory environment, some businesses, especially the ones from the financial services sector, may be able to provide a limited omni-channel experience only (Passini, 2017). For example, it may not be possible for banks to let customers open business/commercial accounts through digital channels. It may be possible to open the accounts face-to-face in a branch setting because of the excessive documentation and its verification required.

#### *Utilize the artificial intelligence-based (AI-based) products and applications*

Use as much artificial intelligence-based applications and innovations as feasible to strengthen the customer experience program. As mentioned earlier, artificial intelligence is the simulation of human intelligence processes by machines, especially computer systems. These processes include three things: learning (the acquisition of information, and rules for using the information), reasoning (using the rules to reach approximate or definite conclusions), and self-correction. AI primarily consists of three dimensions—machine learning (ML), natural language processing (NLP), and cognitive computing. The rapidly advancing last dimension of cognitive computing is the simulation of human thought processes in a computerized model. Cognitive computing involves self-learning systems that use data mining, pattern recognition and natural language processing to mimic the way the human brain works. Cognitive computing is used in numerous artificial intelligence applications, including expert systems, natural language programming, neural networks, robotics, and virtual reality.

Companies like IBM, Google, Microsoft, Facebook and Amazon are investing heavily in their own R&D, as well as buying start-ups that have made progress in areas like machine learning, neural networks, and natural language and image processing. AI is already being used by Netflix in the form of recommendation engine for suggested movies/shows to watch, iPhone’s Siri (an intelligent digital assistant), Amazon Echo’s Alexa (another intelligent digital assistant), etc. As per Devendra Mangani, a senior consultant at Bizofit, commercial banks can strengthen customer experience by using AI in the areas of anti-money

laundering pattern detection (replacing rule-based software systems with cognitive computing), chat bots (AI-based automated chat systems which stimulate human chats without any human intervention, for example, Bank of America's Erica), algorithmic hedge fund- and stock-trading (by automated artificial intelligence systems), fraud detection (by using a neural network shell for deployment of sophisticated deep learning-based AI systems), and customer recommendations for financial products and services (by using recommendation engines).

## CONCLUDING REFLECTIONS

Overall, a holistic CX program, as discussed above, may be refined periodically at three levels ([www.maritzCX.com](http://www.maritzCX.com)): the individual customer level (case management), the aggregate customer level (change management), and the organizational level (knowledge management). When *individual* customers provide feedback, whether negative (complaint), neutral (comment), or positive (compliment), the business should reciprocate or respond in a timely fashion. An automated case management is a process in which a customer's feedback is automatically recognized, it is routed to the appropriate employee, and the employee's reply is automatically tracked to close the loop with the customer. This process repairs a damaged relationship or strengthens the developing one. The analysis of *aggregate* customer feedback may uncover opportunities to institutionalize CX process improvements in the company through a change management process. Acting on a customer feedback has a knowledge management component in which, for example, an effective CX technique learned (knowledge) to overcome a problem in one site location may later be applied to the entire organization to address the similar problems.

As a firm passes through gradual stages of its customer-centric maturity (for example, from tactical/optional customer-feedback enterprise to customer-focused enterprise to customer-adaptive enterprise), its holistic CX program also advances and matures steadily. At the very last stage, the CX program has already gone through numerous iterations and adjustments and cannot be developed further. At this stage, the firm has the robust customer experience program that cannot be easily imitated by its other competing organizations. And, this is the stage where the holistic advanced CX program may yield customer retention, revenue growth, and profitability.

In this paper, in addition to the discussion about the common dimensions of a holistic CX program (vision, goals, processes, feedback, analytics, metrics, research tools, culture, structure, and action-planning), we have also delineated numerous implementation-related suggestions for example, personalization, emotion comprehension, omni-channel utilization, and application of AI-based innovations. These suggestions are based upon the advancement of technology in the business world. As the technology has been advancing continually at a rapid pace, more technology-based applications are likely to evolve which the business firms need to utilize to stay competitive.

## REFERENCES

- ACSI (n.d.). The science of customer satisfaction. Retrieved from [www.theacsi.org](http://www.theacsi.org).
- Batra, M. (2016). Customer experience: An emerging frontier in customer service excellence. *Competition Forum*, 15(1), 198-207.
- Batra, M. (2015). Human sigma: What, why and why not? *Journal of Organizational Psychology*, 17(3), 40-51.
- Dil, S. (2016). Reducing uncertainty with predictive modeling. *CFO* (November). CFO Publishing LLC.
- Edelman, D., & Singer, M. (2015, November). Competing on customer journeys. *Harvard Business Review*, 89-99.
- Fleming, J. H., & Asplund, J. (2007). *Human sigma: Managing the employee-customer encounter*. New York, NY: Gallup Press.
- Georgesens, J. (n.d.). Customer effort: More work, less loyal. Published by Convergys website. Retrieved October 31, 2017, from [https://cvgdotcomstoreprod.blob.core.windows.net/marketing/asset/Convergys%20Analytics%20-%20More%20Work%20Less%20Loyal%20\(FINAL\).pdf](https://cvgdotcomstoreprod.blob.core.windows.net/marketing/asset/Convergys%20Analytics%20-%20More%20Work%20Less%20Loyal%20(FINAL).pdf)
- Inman, M., & Bolger, S. (2017). Building a CX program for business success. *Unlock the Value of CX*, 100-105. MaritzCX.
- Lemon, K., & Verhoef, P. (2016). Understanding customer experience throughout the customer journey. *Journal of Marketing*, 80, 69-96.
- Mangani, D. (April 28, 2017). 5 AI applications in banking to look out for in next 5 years. [www.analyticsvidhya.com](http://www.analyticsvidhya.com)



- MaritzCX. (n.d.). A beginner's guide to launching a customer experience (CX) program. Retrieved from [www.maritzcx.com](http://www.maritzcx.com)
- Pflughoeft, K., & Whitaker, F. (2017). An emotional view of a customer's experiences. *Unlock the Value of CX*, 38-45. MaritzCX.
- Reichheld, F. (2016). *The ultimate question 2.0*. Boston: Harvard Business Review Press.
- Rosenbaum, M., Otolara, M., & Ramirez, G. (2017). How to create a realistic customer journey map. *Business Horizons*, 60, 143-150
- Scheidel, B., & Turner, M. (2017). Conquering top CX challenges with text analytics. *Presentation at the conference "CX Fusion" sponsored by MaritzCX* (April 11).
- Turner, M. (2017). Bringing personalization to CX. *Unlock the value of CX*, 14-19. MaritzCX.
- Passini. (2017). Is omni-channel the unicorn of modern CX? *Unlock the value of CX*, 30-37. MaritzCX.