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MÜŞTERİ DENEYİMİ ÖLÇEĞİ

Araştırma

Nihat Tavşan
Sorumlu Yazar (Correspondence)
Piri Reis Üniversitesi
antavsan@pirireis.edu.tr
Can Erdem
Yeditepe Üniversitesi
canerdem@yeditepe.edu.tr

Nihat Tavşan, Piri Reis Üniversitesi İşletme doktor öğretim üyesidir. Pazarlama alanında ders vermekte ve bu alanda araştırmalar yapmaktadır.
Can Erdem, Yeditepe Üniversitesi İşletme doçentidir. Pazarlama alanında ders vermekte ve bu alanda araştırmalar yapmaktadır.

MÜŞTERİ DENEYİMİ ÖLÇEĞİ

Nihat Tavşan
antavsan@pirireis.edu.tr
Can Erdem
canerdem@yeditepe.edu.tr

ÖZET

21. Yüzyılın başından itibaren Müşteri Deneyimi kavramı kurumların sürdürülebilir bir rekabet avantajı olarak öne çıkmıştır. Akademisyenlerin ve uygulamacıların hızla benimsediği bu kavramın yaygın kullanımı güvenilir ve uygulanabilir bir ölçüm aracının olmaması nedeniyle olumsuz etkilenmiştir. Bu çalışmanın amacı mevcut bilimsel yazını inceleyip, tümdengelimsel ve tümevarımsal araştırmalarla akademisyenler ve araştırmacılara değerlendirebilecekleri bir Müşteri Deneyim ölçeği sunmaktır. Mevcut yazın'ın incelenmesi ile başlayıp odak grup görüşmeleri ve derinlemesine mülakatlarla devam eden bu çalışma; içerik ve görünüş geçerliliğini araştıran tümevarımsal çalışmaları ile sürmüştür. Dört tümevarımsal aşamayı takiben; 4229 katılımcının, sekiz farklı sektörde yaşadığı deneyimleri üzerine beş farklı tümdengelimsel çalışma gerçekleştirilmiş ve Müşteri Deneyimi ölçeği araştırmacıların ve uygulamacıların kullanımına sunulmuştur.

Amaç: Bu çalışmanın amacı mevcut bilimsel yazını inceleyip, tümdengelimsel ve tümevarımsal araştırmalarla akademisyenler ve araştırmacılara değerlendirebilecekleri bir Müşteri Deneyim ölçeği sunmaktır.

Yöntem: Sekiz farklı sektörde yaşadığı deneyimler ile beş farklı tümdengelimsel çalışma gerçekleştirilmiştir. Test-tekrar test ve paralel form geçerliliği ile ölçek stabilize edilmiştir.

Bulgular: Dört tümevarımsal aşamayı takiben 4229 katılımcının sekiz farklı sektörde yaşadığı deneyimler ile beş farklı tümdengelimsel çalışma gerçekleştirilmiş ve Müşteri Deneyimi ölçeği araştırmacıların ve uygulamacıların kullanımına sunulmuştur.

Özgünlük: Bu çalışma ile lüteratüre uygulanabilir, güvenilir ve geçerli bir ölçek kazandırılmıştır.

Anahtar Kelimeler: Müşteri Deneyimi Ölçeği, Müşteri Deneyimi ölçümü, Ölçek Geliştirme

JEL Sınıflandırması: M30, M31

THE CUSTOMER EXPERIENCE MEASUREMENT SCALE

ABSTRACT

By the beginning of the second millennium, the customer experience (CX) concept has emerged to enable companies to achieve a sustainable competitive advantage. This concept has been embraced by both academicians and practitioners but the absence of a reliable and representative measurement instrument in this domain has been as a major concern. The aim of this study is to sift through the available literature, conduct inductive and deductive studies and then present a valid and reliable customer experience scale to academicians and researchers to be further evaluated. The development phase started with literature review, followed by focus group interviews and in-depth interviews. The inductive studies went on through content validity and face validity studies. Following the completion of four inductive studies, a total of five deductive studies referring to the experiences of 4229 in eight different industries were employed.

Purpose: The aim of this study is to examine the current scientific literature and to present a workable Customer Experience scale that can be used by academics and practitioners.

Method: The development phase started with literature review, followed by focus group interviews and in-depth interviews. The inductive studies went on through content validity and face validity studies.

Findings: As a result of the battery of research a valid and reliable scale is developed.

Originality: The study sets forth a scale that can be used in both by academics and pracititioners.

Keywords: Customer Experience Scale, Customer Experience Measurement, Scale Development

JEL Classification: M30, M31

INTRODUCTION

Until the mid-80s, consumers were considered rational decision-makers who act purely based on reason. The initial impulses of customer experience emerged in the studies of Morris Holbrook and Elizabeth Hirschman (1982). As the customer experience domain's pioneer scholars, they addressed the value of the "experiential view" in consumer research (LaSalle and Britton, 2003). Holbrook and Hirschman (1982; p.139) suggested that: "by focusing single-mindedly on the consumer as an information processor, recent consumer research has tended to neglect the equally important experiential aspects of consumption, thereby limiting our understanding of consumer behavior.". With the emergence of the experience paradigm, a need to measure it has arosen. The study is conducted to respond to this need through developing a valid and reliable scale measuring customer experience.

CONCEPTUAL FRAMEWORK

By the beginning of the second millennium, the concept of customer experience was deliberately center stage throughout Pine and Gilmore's (1999) book: “The Experience Economy”. These authors introduced "experience" as the ultimate level of economic offerings, following commodities, goods, and services, respectively (Gentile et al., 2007). Pine and Gilmore (1999) suggested that, rather than high-quality products and services, customers are searching for satisfying consumption experiences that possess highly symbolic and affective value; in other words, customers want to create holistic and long-lasting experiences (Bustamante and Rubio, 2017). The research of Addis and Holbrook (2001) addressed the same phenomenon as Pine and Gilmore as they recognized the need for companies to embrace customer experience passionately to survive in this up-coming competitive paradigm. Concurrently, Gentile et al. (2007), Schmitt (2003), Shaw and Ivens (2002) and Schmitt (1999), all emphasized the value of co-creation of the customer experience by both the customer and the company. Berry specifically stated that companies needed to be aware of all the steps of the customer's journey from customer expectations prior to the journey to the customer assessment at the end of it. Understanding this journey would enable the brand to identify a series of "clues" that collectively met or exceeded customers' emotional expectations (Berry, Carbone and Haeckel, 2002). Schmitt deserves special recognition, since his book, Experiential Marketing (1999), spelled out the customer experience in a way anyone can understand: He defined customer experience as "the triggered stimulations to the senses, the heart, and the mind connecting the company and the brand to the customer's lifestyle,...[these experiences] place individual customer actions and the purchase occasion in a broader social context" (Schmitt, 1999; Duran and Uray, 2018). He also commented that customer experience (CX) provided stimulation to sensory, emotional, rational and physical aspects at different levels; therefore, it is strictly personal and unique (Schmitt, 1999).

Meyer and Schwager (2007, p.118) have made a more comprehensive definition of customer experience: "the internal and subjective response customers have to any direct or indirect contact with

a company". While direct contact, usually initiated by the customer, generally occurs in the course of purchase, use, and service, indirect contact may occur with exposure to an ad or by word of mouth. In other words, one customer's comments to another, a pop-up banner on a website or even the sound of a Harley-Davidson motorcycle may be considered an indirect contact. Schmitt (1999) and LaSalle & Briton (2003) also added that CX implied customer involvement at rational, emotional, sensorial, physical and spiritual levels. Tavşan and Erdem (2018) warned about the misconception that CX relates simply to delivering excellent customer service and can only be accomplished by companies, such as theme parks, that can trigger extreme emotions and enthusiasm. Drawing from this literature and the work of other scholars (Brakus et. al., 2009; Schmitt, 2003; Verhoef et.al, 2009), it can be stated that CX is a multi-dimensional construct with the following components: Sensorial, which involves the senses of sight, smell, hearing, touch and taste to stimulate excitement and pleasure; Emotional, which generates emotional responses to create an emotional relationship with the brand and/or the company; Cognitive, which is related to conscious mental processes like thinking to engage customers in problem-solving; Usability, which refers to a product being user-friendly; Lifestyle, which encompasses the values and beliefs of customers; and Social, which is the effect of the product/service on establishing relationships with others (Schmitt,1999; Gentile et.al, 2007).

The problem facing companies that want to implement compelling Customer Experience is that most of the research on CX has been focused on providing superior CX but not on how to measure it. Without metrics to gauge the effectiveness of specific strategies along the customer journey, CX loses its impact because brands need to know precisely which customer touch points are working and which are not. Thus, it is surprising that measuring CX has not been a popular research topic for academicians. One would think that the sheer complexity of CX as a holistic concept would prick their interest. Unfortunately, as a result, the existing CX scales usually focus on specific parts of individual experiences but not on the customer journey as a whole. This piecemeal approach conflicts with the very definition of CX, that is, that it is a subjective, co-created and holistic construct that integrates multiple dimensions (e.g., De Keyser et al. 2015; Lemon and Verhoef, 2016). Novak et al. (2000) agree that empirical research on CX is fragmented, blaming this on the fact that this research mainly focuses on online environments and brands (Brakus, Schmitt, and Zarantonello, 2009). Companies cannot ignore in-person brand interactions when developing their customer journeys. They have to adjust their customer touch points to the ever-changing marketing environment that includes both physical and virtual interactions with their customers. This is why it is so critical that researchers provide reliable and valid customer experience measurement tools to businesses. These tools enable companies to develop a holistic customer experience that creates a lasting bond between the customer and the brand. Technological improvements and their effects on marketing tools have a significant impact on customer journeys' complexity and an indirect effect on limited and fragmented research.

METHODOLOGY

This study took the advice of Churchill (1979), DeVellis (2016), Gerbing and James (1988) and Netemeyer et al. (2003), who suggest using a structured empirical scale development method when developing the instrument for measuring customer experience. In addition to this, in order to confirm the generalizability of the scale, this study was conducted across eight industries: banking, insurance, traveling, tourism, retailing, online retailing, automotive and healthcare.

Table 1. Scale Development Summary

1. **Concept Definition**
2. **Item Generation**
   - Literature Review
   - Focus Group Interviews
   - In-depth Interviews
3. **Item Evaluation**
   - Face Validity
   - Content Validity
4. **Item Distillation**
   - Exploratory Factor Analysis
   - Correlation Statistics
   - Factor Loadings
5. **Initial Validation**
   - Confirmatory Factor Analysis
   - Factor Loadings
   - Fitness
   - Convergent Validity
   - Discriminant Validity
   - Reliability
6. **Nomological Validation and Parallel Forms Reliability**
   - Confirmatory Factor Analysis
   - Construct Comparison
   - Effect Comparison
   - Variance Comparison
   - Parallel Forms Reliability
   - Variance Assessment
   - Correlation Comparison
7. **Test-Retest Reliability**
   - Confirmatory Factor Analysis
   - Paired Sample T-Test
   - Item Correlations
   - Internal Consistency Assessment
   - Variance Assessment
8. **Stabilization of Reliability**
   - Confirmatory Factor Analysis
   - Model Fit
   - Factor Loadings
   - Convergent Validity
   - Reliability

The procedure for developing the CX scale is summarized above in Table 1. Following the item generation, the item elimination was conducted through principal component analysis, and, in further study, confirmatory factor analysis was performed to confirm the structure. The reliability and validity of the scale were supported through further investigations. After fulfilling the scale's validity and reliability, nomological validity was tested through comparison with other constructs; then the scale was validated through test-retest methodology. The further study supported the test-retest stabilization as finally achieving parallel forms reliability and the stabilization of the scale was satisfied through examinations across eight different industries.

FINDINGS

Item Generation Study

This study aimed to provide a research-grounded and easily applicable measuring tool to be used in future customer experience studies. Thus, both the scope and applicability of the scale were considered when generating items. The first pool consisted of 28 items that covered three integral facets of the customer experience: hedonism, mindfulness, and valence. Event-different facets of

the customer experience were taken into consideration. These three facets were expected to address a first-order reflective construct to measure customer experience. Based on this goal, the pool's face and content validity were evaluated by a group of three judges. The judges assessed each item's representativity referencing the operational definition of the CX concept (Hardesty and Bearden 2004). In the evaluation session, the items that took the majority of the votes—within each facet—remained. Thus, nine of the items were removed (Malhotra, 1981)

In the next stage, another set of three judges evaluated the items, appraising the fit between the items and the operant definition as suggested by Churchill (1979) and DeVellis (2016). A majority of the votes were required to classify each item as representative; otherwise, the item was removed. As a result, seven items remained to be evaluated in later steps. A five-pointed, unipolar, balanced, itemized Likert-type scale was used in further development stages, with the rating range of 1= "strongly disagree" through 5 = "strongly agree."

Item Distillation Study

A total of 373 respondents participated in the study. The percentage of females was 53%, while that of males was 47%. The average age of the participants was 29, 1 (SD= 8, 54; M= 27). Participants were asked to evaluate their retail purchase experience. The first sampling adequacy was tested. The sampling adequacy measure of Kaiser-Meyer-Olkin produced 0,844, which is over the cut-off value of 0,5; Bartlett's test of sphericity yielded a significant result through which sampling adequacy was satisfied. The correlation among items was significant ($p<0,001$).

Table 2. Correlation Matrix

Factor Item	1	2	3	4	5	6	7
The brand never aggrieves me.	1,000	0,883	0,695	0,478	0,627	0,609	0,501
The brand never embarrasses me.		1,000	0,687	0,466	0,619	0,582	0,564
The brand in every sense makes me happy.			1,000	0,619	0,655	0,634	0,622
The brand always listens to me.				1,000	0,761	0,520	0,492
The brand always understands me.					1,000	0,656	0,597
The brand quite values me.						1,000	0,696
The brand quite fits with my values.							1,000

Note: All correlations in the table are significant ($p<0,001$)

Exploratory factor analysis was conducted when performing item distillation to explore the underlying structure of the customer experience. When evaluating the structure, both oblique and orthogonal rotations were harnessed. Both results suggested that one component was over the

eigenvalue of 1; thus, one component was extracted as previously suggested. Consequently, the proposed seven items remained in scale to be utilized in further studies.

Validation Study

The validation study was conducted through the participation of 276 respondents. The average age of the participants was 32,3 (SD= 7,86; M= 32). 51% of the participants were female, and 49% of them were male. The participants evaluated the scale in terms of their automobile experiences. Initially, confirmatory factor analysis was performed to assess the validity of the construct. The analysis was done by using the maximum likelihood extraction method. As a result, one factor was extracted, as suggested by the exploratory factor analysis stage.

Table 3. Descriptive Statistics and Loadings of the Items

Item	Range	Mean	SD	SE	λ
The brand never aggrieves me.	4,00	2,97	1,128	0,068	0,851
The brand in every sense makes me happy.	4,00	2,99	1,143	0,069	0,808
The brand never embarrasses me.	4,00	2,99	1,146	0,069	0,813
The brand always understands me.	4,00	3,08	1,134	0,068	0,849
The brand quite values me.	4,00	2,92	1,129	0,068	0,818
The brand quite fits with my values.	4,00	3,05	1,122	0,068	0,813
The brand always listens to me.	4,00	2,94	1,115	0,067	0,858

The CFA analysis indicated that the items fit within expected parameters (χ2=16, 9; *df*=14; CFI=0,99 IFI=0,99; SRMR=0,02), which supported the previous findings. The single factor extraction, average variance extracted (AVE), resulted in 0, 69, which was over the cut-off value of 0, 5. When assessing the construct's convergent validity, the item loadings were examined, and the items of the construct significantly correlated with each other (see Table 4). The result indicated that the convergent validity was satisfied. Discriminant validity, another dimension of the validity, was also examined in accordance with Klecka (1980). The conducted EFA and CFA suggested that the construct consisted of a single factor. Thus, discriminant validity was dissolved accordingly.

Table 4. Item Correlation Matrix

Factor Item	1	2	3	4	5	6	7
1. The brand never aggrieves me.	1,000	0,677	0,681	0,736	0,715	0,670	0,736
2. The brand never embarrasses me.		1,000	0,658	0,689	0,654	0,698	0,673
3. The brand in every sense makes me happy.			1,000	0,670	0,697	0,673	0,694
4. The brand always listens to me.				1,000	0,670	0,695	0,743
5. The brand always understands me.					1,000	0,643	0,704
6. The brand quite values me.						1,000	0,691
7. The brand quite fits with my values.							1,000

Note: All correlations in the table are significant ($p<0,001$)

In order to calculate the composite reliability of the construct, the average ε of the items was calculated by calculating the average of $1-\beta^2$ for per item. The average of the loadings divided into the summation of the square of the average β and average ε; hence, the composite reliability produced the output of 0, 94 that satisfied the composite reliability requisite. After validity tests and the composite reliability test of the scale, the scale's internal consistency was examined based on the method of Cronbach (1951). The treatment yielded a finding that suggests an excellent result (DeVellis, 2016) since the reliability coefficient was 0,938.

Nomological Validation and Parallel Forms Reliability Study

The validity and reliability tests produced significant results indicating that the items of the customer experience are highly correlated with each other as addressed and the measure is internally consistent; thus, these findings suggest the validity and the reliability of the CX scale. On the other hand, to use this scale in academic research and practical applications, the scale should be able to predict specific measures to satisfy nomological validity (Cronbach and Meehl, 1955; Bagozzi 1980). The measure of customer experience should exhibit significant relationships to some other constructs' measures, which suggests that there needs to be a significant relationship with customer experience in the literature to fulfill the nomological validity (Campbell, 1960). As suggested by Nunnaly (1978), separate samples were used when assessing the nomological validity (males group and females group). The questionnaire containing a customer experience scale and items of other constructs with a significant relationship with the CX concept was distributed to participants to evaluate the nomological validity. A set of relationships between customer experience and relevant concepts was tested to meet the requisite.

Customer Experience and Loyalty Relationship

The concept of customer experience is a strong determinant of customer loyalty. So far, the studies of Chang and Chieng (2006), Court et al. (2009), Brakus et al. (2009), Edelman (2010), Nysveen et al. (2013), Nysveen and Pedersen (2014), Ramaseshan and Stein (2014), Homburg et al. (2015), Brun et al. (2017), Tavşan (2017), Tavşan and Erdem (2018), and Erdem and Tavşan (2019) proposed that there is a significant effect of customer experience on customer loyalty. Thus, the customer experience scale should exhibit a significant effect on loyalty. So, we formally hypothesize that:

Nomological Validation H_1***:*** The customer experience scale has a significant positive effect on customer loyalty.

Customer Experience and Purchase Intention Relationship

Customer experience and the intent to purchase both have the Pleasure/Pain Principle at their root. Lewin (1935), Allport (1948) and Jain et al. (2009) comment on the fact that individuals actively seek pleasure and avoid pain. To understand what provides pleasure and what provides pain, individuals must sense it. The senses are the sources of experience, which lead to knowledge (Neisser, 1967; Anderson, 1990; Bossart, 1994; Neisser 2014). Consequently, positive experiences activate an approach intention and negative experiences cause an avoidance intention. Purchasing is an exchange between two parties. Customer gives an economic value to the brand in return of getting a relevant value. If what is delivered by the company provides pleasure, the customer forms positive attitudes toward the company which strengthens the customer's purchase intention. So, we formally hypothesize that:

Nomological Validation H_2*:* The customer experience scale has a significant positive effect on purchase intention.

Customer Experience and Brand Trust Relationship

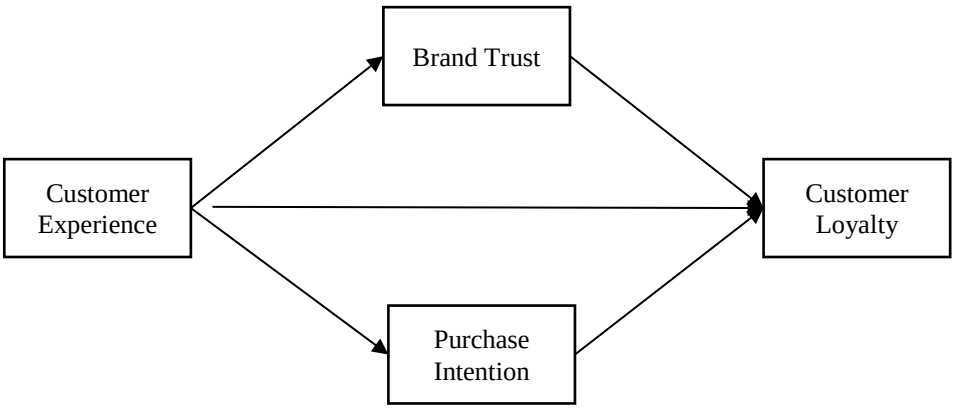
According to Chaudhuri and Holbrook (2001), brand trust is the strong willingness of consumers to rely on a specific brand to perform its declared function. The declared function is the reflection of conformity, and the conformity is about consistency (Bator and Cialdini, 2006). Individuals expect consistent outcomes as the result of consistent behaviors. In order to determine what product or service is consistently delivering pleasure and not pain, consumers need to experience the stimuli (brand, product, service, etc.) for a period of time. Exposure to a brand, product or service might be either through indirect ~~e~~xperiences—advertisements or referrals—or through direct experiences, in which the customer experiences the offering firsthand (Tavşan and Erdem, 2018). After that, the customer makes decisions based on the construction of bridges of trust. Brand trust is a predictor of

loyalty. Morgan and Hunt (1994) suggest that brand trust is the source of loyalty and commitment; this is because trust stems from the exchange of value and a growing relationship between customers and brands. So, we formally hypothesize that:

Nomological Validation H_3: The customer experience scale has a significant positive effect on brand trust.

Thus, the nomological validation model (Figure 1) shows links between Customer Experience, Brand Trust, Purchase Intention, and Customer Loyalty. These were the instruments of measurement (scales) applied for nomological validation of the customer experience scale. As suggested by Lindell and Whitney (2001) as well as Malhotra et al. (2006), a partial marker variable was included in the model. A compulsive consumption scale was included the study to function as a partial marker. This is a measure to identify compulsive consumers. O'Guinn and Faber (1989) utilized 13 items. To measure purchase intention, five items of the scale were evaluated, as recommended by Dodds et al. (1991). For measuring brand trust, the scale designated by Hess (1995) was employed for 11 items. The loyalty scale, consisting of four items, and suggested by Chaudhuri and Holbrook (2001) was harnessed to measure the loyalty construct.

Figure 1. Nomological Validation Model



The nomological validity study was conducted as a parallel forms study, since it was performed on female and male groups. (Female group n=187, Mean Age=32,26 SD=8,22; Male group n=172, Mean Age=32,21 SD=8,02) A total number of 358 respondents participated in the study as they evaluated recent restaurant experience. To validate the construct, confirmatory factor analysis was employed separately for the groups, and then reliability and validity were evaluated for the construct. The CFA test for both groups yielded results indicating a good fit (For female group: $\chi 2 = 23,1$; $df = 14$; CFI = 0,99; IFI = 0,99; SRMR = 0,01 and for male group: $\chi 2 = 30,1$; $df = 14$; CFI = 0,99; IFI = 0,99; SRMR = 0,01). After satisfying the CFA fit for the CX scale, the reliability of the CX scale was examined and satisfied (Female group: Cronbach's $\alpha = 0,97$; CR = 0,97; AVE = 0,83; male group: Cronbach's

α = 0,98; CR = 0,98; AVE = 0,87). In next phase, the nomological network test analysis was employed.

Table 5. Nomological Validity Model Assessments per Group

	Female Group							Male Group						
Construct	n	Mean	SD	Cronbach's α	CFI	IFI	SRMR	n	Mean	SD	Cronbach's α	CFI	IFI	SRMR
Customer Experience	187	3,09	1,01	0,97	0,99	0,99	0,01	172	3,04	1,13	0,98	0,99	0,99	0,01
Brand Trust	187	2,92	1,20	0,99				172	2,77	1,09	0,98			
Customer Loyalty	187	3,14	0,90	0,93				172	3,22	1,06	0,96			
Purchase Intention	187	2,93	1,04	0,97				172	3,12	1,00	0,97			

The marker variable of compulsive consumption had not produced a significant result in the model for both male and female groups, so the variable was omitted off the model and the analysis performed again. The findings suggested that the data fits the model both for female ($\chi 2$ = 34,8; *df* = 33; CFI = 0,99; IFI = 0,99; SRMR = 0,02) and male groups ($\chi 2$ = 41,9; *df* = 33; CFI = 0,99; IFI = 0,99; SRMR = 0,02). The hypotheses are not rejected for both groups since the main effects and indirect effects in the model for both groups yielded significant results (p < 0, 05). Thus, first, the scale was stabilized through parallel forms reliability study, and, second, the nomological validation of the scale was satisfied through testing across suggested relationships in the literature. The model supported the effect of customers experiences on customer loyalty as suggested by Chang and Chieng (2006), Court et al. (2009), Brakus et al. (2009), Edelman (2010), Nysveen et al. (2013), Nysveen and Pedersen (2014), Ramaseshan and Stein (2014), Homburg et al. (2015), Brun et al. (2017), Tavşan (2017), Tavsan and Erdem (2018). Erdem and Tavşan (2019) supported the effect of customer experience on purchase intention as suggested by Sherman et al. (1997), Ling et al. (2010), Rose et al. (2011 and 2012) and Nasermoadeli et al. (2013) and the effect of customer experience on brand trust as suggested by Ha and Perks (2005), Delgado-Ballester and Munuera-Alemán (2005).

Table 6. Stability and Reliability of Parallel Forms Validation Procedure

Item	Differences		t-test Outputs			Correlations (Female sample below, male sample above)						
	Mean	SE	t-value	df	p-value	1	2	3	4	5	6	7
1. The brand never aggrieves me.	0,114	0,125	0,917	356	n.s.		0,888	0,874	0,880	0,877	0,900	0,890
2. The brand never embarrasses me.	0,001	0,123	0,011	349	n.s.	0,863		0,828	0,856	0,909	0,883	0,861
3. The brand in every sense makes me happy.	0,100	0,120	0,828	345	n.s.	0,858	0,805		0,861	0,838	0,866	0,845
4. The brand always listens to me.	0,040	0,120	0,330	346	n.s.	0,843	0,804	0,833		0,877	0,895	0,871
5. The brand always understands me.	0,026	0,121	0,216	344	n.s.	0,842	0,841	0,838	0,786		0,880	0,854
6. The brand quite values me.	0,080	0,124	0,643	342	n.s.	0,848	0,838	0,836	0,825	0,797		0,877
7. The brand quite fits with my values.	0,016	0,121	0,131	336	n.s.	0,851	0,849	0,841	0,801	0,819	0,827	

Note: All correlations in the table are significant (p<0,001)

Stabilization – Test-Retest Reliability Study

The stabilization of the scale was initially conducted through test-retest reliability as suggested by Nunnally (1978). According to Nunnaly (1978), the three issues of concern to be considered when performing test-retest reliability are about the responses of the respondents due to both the timing and frequency of the testing. In other words, the time interval between the tests should neither be too short nor too long since he/she should not be let base the reply on recall and the prospect variance between replies should not occur because of the changes in respondents: the third issue is that if the test- -retest studies are done several times, then the subjects may develop tolerance to the instrument, and they may end up responding in the way they are expected to. The test-retest reliability of the scale was assessed in the banking industry, and two studies were run with 182 and 104 respondents respectively with a time interval of six weeks. As a result, the number of observations for the test-retest study was run through the participation of 104 respondents.

Table 7. CFA Outputs and Descriptive Statistics in Test-Retest Procedure

Research	n	Range	Cronbach's α	$\chi 2$	*df*	CFI	IFI	SRMR
Initial Study	104	4	0,97	25,9	14	0,99	0,99	0,02
Follow-up Study	104	4	0,97	25,5	14	0,99	0,99	0,02

To avoid potential systematic error due to extensive time decay of the memory, the respondents were only reminded the name of the chosen bank in the previous study. When assessing the test-retest reliability, internal consistency was tested by interpreting Cronbach's alpha. A paired sample t-test was employed to measure the variance between t_1 and t_2 as per observation. The correlation of the

items of the construct in t_1 and t_2 was tested by applying the Pearson correlation test. The reliability of the construct in both studies was over the cut-off value of 0, 70 (Study 1: Cronbach's $\alpha = 0,968$; Study 2: Cronbach's $\alpha = 0,969$). Pearson correlation between the items was significant in both the first and second test-retest studies (Study 1: r = 0, 77 to 0,86, p<0,001; Study 2: r = 0,77 to 0,88). Thus, the test-retest reliability of the scale was satisfied and the stabilization of the scale was supported.

Table 8. Stability and Reliability of Test-Retest Validation Procedure

	Paired Differences			Paired t-test Outputs			Correlations (Initial results below and follow-up results above)						
Item	Mean	SD	SE	t-value	df	p-value	1	2	3	4	5	6	7
1. The brand never aggrieves me.	0,019	0,682	0,067	0,287	103	n.s.		0,777	0,881	0,830	0,774	0,813	0,805
2. The brand never embarrasses me.	-0,115	0,701	0,069	-1,679	103	n.s.	0,813		0,806	0,817	0,808	0,846	0,823
3. The brand in every sense makes me happy.	-0,048	0,729	0,072	-0,672	103	n.s.	0,828	0,795		0,830	0,811	0,856	0,833
4. The brand always listens to me.	-0,058	0,651	0,064	-0,904	103	n.s.	0,863	0,853	0,804		0,798	0,805	0,846
5. The brand always understands me.	0,029	0,756	0,074	0,389	103	n.s.	0,804	0,814	0,730	0,841		0,805	0,827
6. The brand quite values me.	-0,077	0,569	0,056	-1,378	103	n.s.	0,823	0,825	0,829	0,835	0,793		0,812
7. The brand quite fits with my values.	-0,019	0,623	0,061	-0,315	103	n.s.	0,769	0,791	0,767	0,853	0,801	0,841	

Note: All correlations in the table are significant (p<0,001)

Stabilization of the Scale

To conclude upon the consistency and stability of the CX-Scale, a final validation is tested across eight industries simultaneously (Banking, Insurance, Traveling, Tourism, Retailing, Online Retailing, Automotive, and Healthcare). The number of respondents varied from 329 to 429 as per industry. Eight observations with missing values were omitted from the dataset (Banking (2), Insurance (3), Retailing (1), Online Retailing, and Healthcare (2).

The study aimed to test the construct's validity in several industries, thus supporting its reliable applicability over a wide spectrum. Confirmatory factor analysis was performed as per industry, and factor loadings were interpreted in the final stabilization test. At last, the reliability of the CX-Scale was tested in the industries mentioned above and the findings were reported.

Table 9. Descriptives, Reliability and Fitness

Industry	n	Cronbach's α	$\chi 2$	*df*	CFI	IFI	SRMR
Banking	429	0,962	202	14	0,95	0,95	0,04
Insurance	329	0,955	146,5	14	0,94	0,94	0,04
Traveling	377	0,958	104,4	14	0,97	0,97	0,03
Tourism	342	0,954	122,8	14	0,96	0,96	0,03
Retailing	414	0,957	293,9	14	0,91	0,91	0,04
Online Retailing	364	0,964	110,9	14	0,97	0,97	0,02
Automotive	395	0,967	141,5	14	0,96	0,96	0,03
Healthcare	364	0,962	148	14	0,95	0,95	0,03

The confirmatory factor analysis results revealed a good fit between the data and the structure (see Table 8). Across all tested industries, the structure yielded similar results as it indicated a good fit. The reliability of each construct was tested by using Cronbach's α internal consistency analysis. These analyses, in accordance with the previous studies, suggest the reliability of the construct.

Table 10. Factor Loadings

	Factor Loadings per Industry							
Item	Banking	Insurance	Traveling	Tourism	Retailing	On. Retailing	Automotive	Healthcare
1. The brand never aggrieves me.	0,922	0,896	0,909	0,910	0,865	0,919	0,942	0,913
2. The brand never embarrasses me.	0,924	0,880	0,908	0,913	0,880	0,905	0,938	0,911
3. The brand in every sense makes me happy.	0,920	0,908	0,907	0,883	0,902	0,900	0,930	0,894
4. The brand always listens to me.	0,799	0,811	0,799	0,781	0,835	0,850	0,837	0,818
5. The brand always understands me.	0,905	0,887	0,877	0,873	0,907	0,911	0,900	0,904
6. The brand quite values me.	0,809	0,790	0,821	0,806	0,802	0,842	0,820	0,850
7. The brand quite fits with my values.	0,905	0,895	0,913	0,879	0,911	0,896	0,902	0,908

The factor loading of the structure as per industry satisfied the convergent validity and composite reliability requisite (Banking CR .96; Insurance CR .96; Traveling CR .96; Tourism CR .95; Retailing CR .96; Online Retailing CR .96; Automotive CR .97; Healthcare CR .96). Thus, the validity and the reliability of the scale stabilized through this last step of the scale-development effort.

DISCUSSION

Brands are increasingly seeking sustainable distinctive competencies. However, ensuring it in today's communicative business environment is not that easy. When a company develops an advantage, other brands provide a similar value to customers. It is frustrating to companies that, as soon as they promote their brand's product, a competitor finds a way to match it. Distinguishing a brand by merely portraying its features and benefits is not enough in today's fast-paced global market. Nonetheless, due to its nature customer experience cannot be copied, so that the customer experience domain possesses a great potential in furnishing sustainable distinctive competencies to companies. Customer experience, because it is comprised of so many variables that depend heavily on each customer, is extremely difficult—if not impossible—to copy. This gives brands a chance to distinguish themselves from the pack by the quality of CX they offer. That is why it is necessary to create compelling customer experiences. Customer experience is unique to every product and company. Even if two companies are selling the exact same product, their CX will be different. One will end up being more successful than the other.

The first study was conducted to distill the items through the contribution of 373 participants, who responded to the scale based on their recent retail experience. Item distillation study produced strong internal consistency among items. In each study, the internal consistency (Cronbach's α) is measured, and the result of the Cronbach's α produced excellent results. In next step, the CX-Scale was validated in the automotive industry through the participation of 276 participants. Later, the nomological validity and the parallel forms reliability of the CX-Scale is tested in the restaurant industry with 358 respondents (female=187, male=171). The findings of the parallel forms reliability study showed no significant differences between male and female populations. In the next stage, the test-retest reliability is tested through the participation of 104 banking customers. The scale showed no significant difference in the same participants over time; thus, the CX-Scale proved its consistency in parallel forms and test-retest reliability methods. In the final study, the CX-Scale is tested in banking, insurance, traveling, tourism retailing, online retailing, automotive, and healthcare industries through the participation of 3014 respondents. The findings supported the stability and reliability of the CX-Scale among different industries. Besides the participants in the qualitative research part of the scale, a total number of 4229 respondents participated in quantitative research part of the study. As a result, the CX Scale, a valid, reliable customer experience measuring tool is presented to literature.

Table 11. Summary of the Conducted Studies

Research	Stage	Industry	n	Cronbach's α	$\chi 2$	*df*	CFI	IFI	SRMR	KMO	Bartlett's Test
Study 1	Item Distillation	Retailing	373	.92	-	-	-	-	-	.84	0,001
Study 2	Scale Validation	Automotive	276	.94	16,9	*14*	.99	.99	.02	-	-
Study 3	Nomological Validation / Parallel Forms Reliability	Restaurant (Female Sam.)	187	.97	34,8	*33*	.99	.99	.02	-	-
		Restaurant (Male Sam.)	171	.98	41,9	*33*	.99	.99	.02	-	-
Study 4	Test - Retest Reliability	Banking (Initial)	104	.96	25,9	14	.99	.99	.02	-	-
		Banking (Follow-up)	104	.97	25,5	14	.99	.99	.02	-	-
Study 5	Stabilization and Reliability Tests Across Industries	Banking	429	.96	202	14	.95	.95	.04	-	-
		Insurance	329	.96	146,5	14	.94	.94	.04	-	-
		Traveling	377	.96	104,4	14	.97	.97	.03	-	-
		Tourism	342	.96	122,8	14	.96	.96	.03	-	-
		Retailing	414	.96	293,9	14	.91	.91	.04	-	-
		Online Retailing	364	.96	110,9	14	.97	.97	.02	-	-
		Automotive	395	.97	141,5	14	.96	.96	.03	-	-
		Healthcare	364	.96	148	14	.95	.95	.03	-	-

CONCLUSION

Companies need a valid, reliable, and, beyond that, theoretically-grounded and practically-applicable measure to evaluate the effectiveness of their customer experiences and to enable them to take actions accordingly. The CX-Scale provides the opportunity for companies to measure the outcomes of their strategic decisions.

The purpose of this research was to develop and validate a measurement tool for the customer experience. A series of research studies were conducted to achieve the goal; as a result, the CX-Scale was both validated and stabilized.

The customer experience is so pivotal to the success of companies; they need a way to measure how well their CX efforts are enabling them to reach their goals. These studies have laid the groundwork for developing a reliable, valid CX Scale that academics can apply in their research, and businesses can apply to their customer experience strategy. Not only will they be able to use it to measure

customer responses, but they can also use it to enhance their current experiences and plan out more effective CX for the future.

Theoretical Implications

Following the reports by Deloitte, Ernst and Young and Accenture, customer experience (CX) has been announced as the topic of top priority by Marketing Science Institute (Tavsan and Erdem, 2018); however, research on the customer experience domain could not demonstrate all its potential due to lack of an applicable, valid and reliable measure. Thanks to the CX Scale, researchers now have greater potential for accurately measuring customer experience and can explore the relational aspects of the customer experience construct in science. This article utilizes a holistic approach to developing an applicable, valid, and reliable scale for measuring customer experience, which maintains and supports the integral nature of the concept.

Managerial Implications

The CX Scale is opening up new and more practical opportunities for companies. Now that the customer experience can be measured, it can be designated as an indicator of how well the company is relating to its customers. It can be tracked by managers through the company dashboard so that they can evaluate both employees and customers. This provides them a great tool for evaluating the performance of employees with and without direct contact with customers and redesign and even to customize marketing activities to place the customer at the center of all marketing efforts in both the formulation and implementation stages. Compared to the other constructs relating to customer experience, this developed scale is relatively shorter and provides convenience to researchers that engage in customer experience research. According to Occam's razor principle, the tool providing the same solution through a more convenient way is preferred; thus, this scale will provide convenience to researchers in their studies.

Limitations and Paths for Future Research

This study recognizes its limitations. It is true that a larger sample would allow us be exposed to more comprehensive feedback from more diversified customer segments. Also, businesses with different competitive structures may provide changing experiential adventures for the customers. One other limitation of this study is that the respondents were not classified as first time, regular or returning customers who might have had different perceptions.

Researchers are encouraged to search for the impact of improved customer experiences on important marketing outcomes. This impact might change depending on the characteristics of the industry, organizational structure and many other internal and external controllable and uncontrollable factors. Despite these unknowns, given the results of these studies and continued research applying the CX Scale to business environments, businesses may soon be able to implement the CX Scale to measure the effectiveness of the customer experience that they are providing.

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