Customer Value Co-creation Intention, Practices, Co-destruction and Experience in Self Service Technologies

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Author's contribution

The sole author designed, analyzed, interpreted and prepared the manuscript.

Original Research Article

ABSTRACT

Many service encounters are moving from traditional physical interfaces to technologically incorporated self-service options. However, it is surprising that very limited extant literature is devoted to understanding the movement towards self-service technologies. Therefore, this study aims at understanding customer value co-creation intention, practices including both the value co-creation and co-destruction and their co-creation experiences in self-service technology context. Based on the positivistic approach, a quantitative study carried out distributing self-administered questionnaires to 600 individuals chosen based on a non-probabilistic convenience sampling method. Study found that customer value co-creation intention has significant positive effects on customer value co-creation practices and significant negative effects on customer value co-destruction in SSTs. Value co-creation practices show a strong positive effect on customer functional experiences and 'positive emotional experiences' while having a negative effect on 'negative emotional experiences. In contrast, co-destruction shows inverse relationships. This study assists practitioners to understand why customers collaborate with SSTs, what they do in co-creating value and how this links with their experience. Service providers can use this understanding to facilitate customer co-creation by securing positive customer experiences and achieving competitive advantage by designing and delivering value enhancing self-service technological interfaces from both strategic and operational perspectives.

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1. INTRODUCTION

Traditionally service setting is defined narrowly limiting to physical interfaces where customer and the service provider take part in direct dyadic interactions [1]. There are ample studies which recognize customer value co-creation in such face-to-face interactions.

However, Technological maturity paired with increasing labour costs compel business organizations to introduce Self-Service Technologies (SSTs) as an alternative to conventional service encounters. SST enabled services are now emerging in an ever-increasing array, providing a growing degree of customer-owned self-responsibility by producing the service with little or no input from the service providers. It has brought many digitalized solutions for customers providing more convenience in many service transactions.

Self-Service Technologies changed many Actor-to-Actor (A to A) interactions into technology based self-service platforms. However scholarly work in co-creation still explores traditional service interfaces disregarding the practical movement towards technological platforms such as self-service technologies [2].

Many of the previous researchers pointed out that existing literature on value co-creation is lack in understanding, technological interfaces [3], technology in service encounter [4] and [5], the experiences of people within the self-service technological systems [6], evaluations of self-service technology options by consumers [7], and the experience of customers at self-service technologies [2] etc.

Addressing these research gaps, this study comprehensively analyzes the aspects such as customer value co-creation intention, practices comprising both the co-creation and co-destruction and customer co-creation experience in SSTs in a single platform.

Next, the paper presents the conceptual background of the study, subsequently, the methodology of the study is explained before providing the findings and discussion. Third, theoretical and practical contributions are discussed along with the limitations and future research directions.

2. LITERATURE REVIEW

2.1 Self-service Technologies

Bitner [8] accepts self-services, remote services and interpersonal services as the three types of services capes. Adhering to the fact that self-service being the predicted norm in many future transactions, it could be recognized as a vital move in the service context [3]. SSTs are outlined as "technologies, provided by an organization, specifically to enable customers to engage in self-service behaviors" [6,3,9,]. Meuter, Ostrom [3,] view SSTs as a source that provides independence to the customer saying that "technological interfaces which enable customers to produce the service independent of direct service employee intervention".

Self Service technologies can be observed in a way of a natural consequence of technological development [10]. Most of the organizations adopt such technologies as a solution for rising labour cost and a vehicle of moving to the future [7]. Now it becomes an essential part of marketing [2], and converts traditional customers into 'working customers', stating 'Do it Yourself' [11] with SSTs.

2.2 Customer Value Co-creation Intention in SSTs

Even though the business organizations receive benefits, it is not fair to force customers to adapt to the SSTs. It is because, failures were found due to forceful adaption of such technologies [12]. Therefore, businesses must have a comprehensive understanding on whether customers willingly accept self-service technologies. In literature, Meuter, Bitner [13,] have brought forward the argument of "why customers decide to try SSTs" are scarce. Although the available literature does not clearly explain customer value co-creation intention in SSTs, a decent amount of previous investigations on comparable situations such as acceptance /trial /adoption of technologies are available.

General technological acceptance models including the Technology Acceptance Model (TAM) or Unified Theory of Technology Acceptance and Use (UTAUT) have been used by most of the previous research work in

understanding the customer acceptance of SSTs. However, Blut, Wang [14] revealed that the self-service technology context has not been properly explained by such models. Further, Oh, Jeong [15] have recommended especially some 'non-technology' variables as vital additions to TAM to understand the SST context.

Prior literature recognizes both 'consumer contexts' (their experience, skills, psychological and social factors) and 'organizational contexts' (speed, features of the interface, reliability and control) as significant in the choice of SSTs by the customers [9]. Apart from that, separate pieces of literature found the importance of 'Performance of technologies' [16], 'Convenience' [17-19], 'richness of information' (Froehle and Roth [20] in customer acceptance of self-service technologies. Further, 'technology know-how 'of the customers [3,7,21], the emotional reactions of the customers consisting of fear, enjoyment, guilt [22-24], fear [25] 'personal judgement like risk, privacy, independence' [18,26-28] also recognised as important. Additionally, 'social influences' [16], Curran and Meuter [23], Venkatesh and Morris [29] and 'situational factors' [30] and [31] were also recognized as important determinants of customer intention of accepting SSTs. Apart from those, one of the prominent factors that affects customer value co-creation practices in SSTs has been recognized as the customers' 'past experience' [10, 28, 31].

2.3 Value Co-creation in SSTs

Vargo and Lusch [32] explain the possibility of customer collaborative value creation through institutional solutions such as SSTs. Currently, SSTs provide infinite opportunities for customers to access and engage with technology based service encounters in co-creating value [33]. Thus, through the provision of opportunities for customers to engage via activities such as trials and knowledge sharing [34], SSTs should encourage customer collaboration processes [35]. SSTs are recognized as a decent mean of value co-creation [36] which mainly result in time-saving [37].

The success of virtual co-creation [24] is created through the rich interactions gifted by the Internet [9]. Inherent characteristics of the internet (Ind and Coates [38] such as 'persistence, reachability, interactivity, flexibility and speed [39] makes it a way which value is conveniently created [24]. Networked organizations [40] and

virtual customer communities [41] contribute even new product development and designing [39, 42]. Now simply customers engage with co-creation through 'smart offerings' (eg: mobile phones) [43] which contain frozen knowledge [44]. Properly designed SSTs can guide even low skilled people to perform well [45].

In SSTs, Customers engage in co-production through integrating resources [6, 13]. McColl-Kennedy, Vargo [46] points the importance of co-learning in value co-creation which takes place through activities such as 'information seeking' [47], knowing [48] and information sharing [49]. Being cooperative with SSTs when collaboratively creating value also is recognised as important [46]. Connecting with the service organisation when necessary [50] as well as if errors happened, obtaining reactions to prevent them [51] and getting recovery actions [52] also recognised as important in co-creating value at SST context. Haas, Snehota [53] identify widespread practices consist of, though not constrained to co-innovation, co-designing, co-conception, shared inventiveness, co-promotion, co-pricing and co-disposal as elements in co-creation.

2.4 Value Co-destruction in SSTs

Co-destruction can be simply recognised as a failure in the co-creation process [12] which results in frustration [54] even though it happens due to personal faults, or a failure with machines [55]. Zhang, Lu [56] recognize online value co-destruction as "negatively valenced engagement behaviors emerging from rude employee behaviors, indifference, confrontation with company representatives, technological failure, the lack of complaint outlets and customers' desire for revenge". Lack of regular personal interactions [57], lack of skills [11] could be reasons for rejection of technologies.

Duality of the customer activities which result in 'value co-creation' as well as value co-destruction' at same time found in the literature [58]. They argue that when people perform practices incongruently, it results in value co-destruction which diminishes the final value in use. Based on their work, Camilleri and Neuhofer [59] uncover six value creation practices "welcoming, expressing feelings, evaluating location and accommodation, helping and interacting, recommending and thanking" between guests and hosts in the hospitality sector, which results in both the co-creation and

co-destructions depending on the customer mood and situation.

Featherman and Hajli [27] revealed 'risks' whereas Hanks, Line [60] recognised 'rejection' of SSTs by some people. In online retailing service failures have been stated to include; problems with the website designs, deliveries, security issues, customer service and payments [61]. Building customer loyalty [62] becomes a main potential hazard of SSTs and still many customers are happy with traditional channels [63]. However, there is a potential for less blame to the company for service failures taking place via SSTs since it is an outcome of their own work [64, 65].

2.5 Customer Value Co-creation Experience in SSTs

'Value in use' refers to the outcomes of the process of value creation [66], and is equivalent to how customer experience in co-creation [67]. The connection existing between the value co-creating process and value outcomes is termed as the co-creation experience [67].

Total Customer Experience (TCE) perspective is a path through which the customer co-creation experience can be understood, which covers both emotional and functional aspects [68]. Oswald, Ram [69] define TCE as " a right blend of both physical and emotional elements along all the stages of the customer experience and value chain, that is, all moments of customer contact with the producer". Lemon and Verhoef [70] stated that the total customer experience is deemed to be a dynamic process with the use of various platforms by the customers in interacting with the organization.

Customer value co-creation experience has been explored by Dennis, Bourlakis [71] with reference to 'online' and 'offline' retail shopping incorporating the dimensions of 'hedonic experience' and 'utilitarian experience'. Literature found positive correlations between customer engagement and experience [72]. Superior experience becomes core in many services [73-74], while augmenting customer experience is important in enhancing service quality [75]. Wiltshier and Clarke [76] found co-creation experience as a process that includes three phases as pre-experience, experience and post-experience. Khodadadi, Abdi [77] have revealed the influence of interaction, trust, action, perceived usefulness, relating, and information

credibility on the customer's experiences with reference to electronic stores.

Reinders [78] found that technology experts normally experience a less positive disconfirmation of expectations and report less positive evaluations of the new self-service than technology novices. However, academic marketing literature studying customer experience is limited, though it has been recognized as important by the practitioners [2, 79]. The majority of the past studies have focused on studying the customer experience in separate pieces of works, instead of presenting them in a single platform recognizing the integration among them [2].

2.6 Conceptual Framework

Following the literature, the study was designed to examine; 1. the impact of recognised influential factors (performance, technology know how, social influences, convenience, situational Factors, information richness) on customer value co-creation intention in SSTs; 2. the impact of customer value co-creation intention on both the customer value co-creation and co-destruction; 3. The impact of both the customer value co-creation and co-destruction on customer functional and emotional experiences and 4; the influence of past experience on both the co-creation and co-destruction. Additionally, it examines the impact of functional experience on customer emotional experience too.

3. METHODOLOGY

This study aims at examining the interplay between customer value co-creation intention, co-creation practices, co-destruction and experience in self-service technologies. Based on the positivistic approach, a quantitative study was carried out to collect primary data using a predetrmined self-administered questionnaire. The study was carried out in a non-contrived environment with a minimal interference of the researcher. This is a single cross sectional study carried out in using 600 individuals chosen based on a non-probabilistic convenience sampling method in the North East Humberside area in the United Kingdom.

Operational definitions were developed referring to the extent literature [80] and tested through a pilot study with 40 individuals. Upon receiving 510 usable questionnaires, they were further cleaned with treating for missing values. Missing

values were insignificant at each item level (Chi-Square = 9244.025, df = 9328, p= .730). According to the results of Little's MCAR (Missing completely at random) test in the expectation maximisation (EM) technique indicating that the patterns of missing values were completely at random and ranged from 0.0% to 0.8% (below 10%) which is ignorable, and then treated with median [81]. Outliers and atypical cases were recognised using boxplots and Mahalanobis distance values [82-83], 17 cases were disregarded from the analysis which were considered as outliers.

Exploratory factor analysis was carried out with the data reduction purpose and understanding uni-dimensionality nature of the variables. Validity of the instrument measured ensuring content validity, construct validity and criterion validity. Factor loadings greater than 0.5, Average Variance Extracted (AVE) greater than 0.5 and Composite Reliability (CR) greater than 0.7 ensures the convergent validity [84]. Content validity was ensured through a rigorous literature survey [80]. Internal consistency of the items was measured using Cronbach's alpha and all the variables resembled alpha values greater than 0.7. Further, Maximum Shared Variance (MSV), and Average Shared Variance (ASV) less than AVE indicates a satisfactory discriminant validity, which is ensured in this study [85].

As suggested by Hair, Black [81], multivariate assumptions were tested before proceeding to main data analysis. Normality was tested using Kurtosis and Skewness. Normality is established since the skewness and kurtosis values lay between -2.00 and +2.00 [86].

3.1 Sample Profile

As shown in Table 2, the majority of the sample consisted of males (53.8%). Most of the participants belong to the 25-34 years age group (26.8%) while elderly population (above 65 years) represent the least of the sample (2.6%). Most of them were full time employees (56.2%) while only 2.4% were identified as retired. Considering the education background, the majority in the sample had postgraduate degrees (30%) while the lowest proportion represented by the least educated group. Sample profile is given in the Table 2.

3.2 Structural Model

Structural Equation Modelling with AMOS use for data analysis purpose. Therefore, both the measurement model and structural model tested for Goodness of Fit (GOF). Following provides the GOF indices of the structural model.

Fig. 2 illustrates the structural model with standardized regression weights (β).

Summary of the findings related to each individual objective are explained in the Table 4.
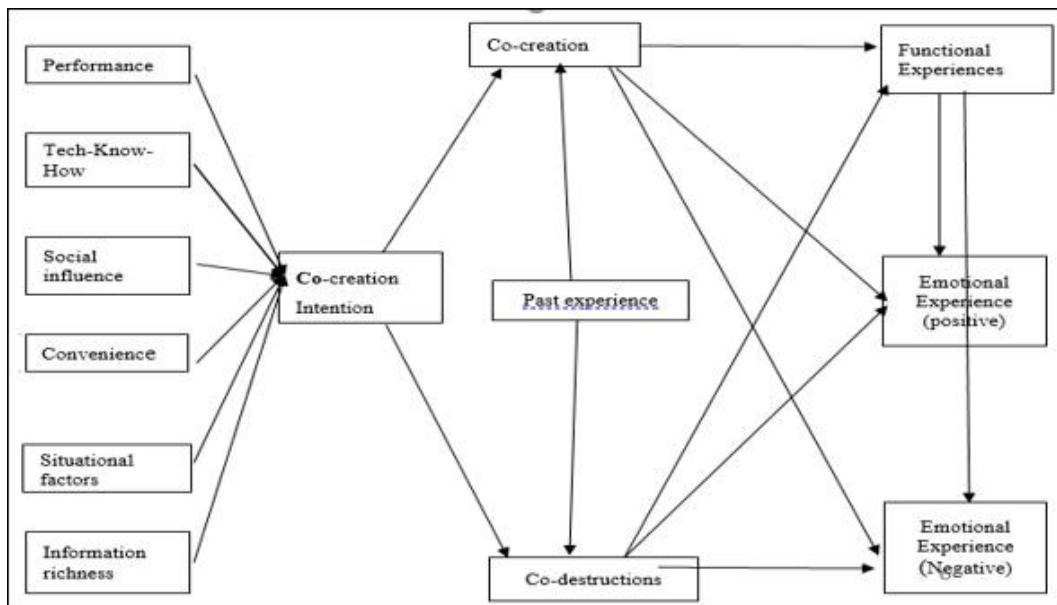

Fig. 1. Conceptual framework

Table 1. Validity and reliability

Construct	Items	Standard Loadings	Standard Error	AVE	CR	Cronbach's Alpha	Discriminant Validity
Co-creation intention	Performance	.862	.048	.743	.897	.898	Confirmed
	Teck-Know how	.796	.056	.634	.912	.908	
	Social influence	.760	.039	.597	.897	.761	
	convenience	.802	.048	.644	.844	.860	
	Situational factors	.794	.056	.632	.774	.792	
	Information richness	.789	.048	.623	.907	.907	
Co-creation	COCR1	.683	.052	.515	.905	.903	Confirmed
	COCR2	.745	.055				
	COCR3	.725	.053				
	COCR4	.714	.062				
	COCR5	.727	.056				
	COCR6	.690	.052				
	COCR7	.635	.055				
	COCR8	.672	.057				
	COCR9	.745	.049				
Co-destruction	CODE1	.558	.048	.634	.912	. 845	Confirmed
	CODE2	.804	.034				
	CODE3	.854	.025				
	CODE4	.662	.039				
	CODE5	.670	.040				
	CODE6	.637	.039				
Functional experience	FUNE1	.673	.051	.643	.876	.889	Confirmed
	FUNE2	.875	.033				
	FUNE3	.922	.039				
	FUNE4	.760	.045				
+Emotional experience	EMEX1	.822	.047	.587	.847	.847	Confirmed
	EMEX2	.961	059				
	EMEX3	.554	.056				
-Emotional experience	EMEX5	.720	.060	.597	.815	.808	Confirmed
	EMEX6	.860	.047				
	EMEX7	.730	.068				

Source: Survey data

Table 2. Sample profile

		Frequency	Percent
Gender	Male	265	53.8
	Female	228	46.2
Age	18-24	66	13.4
	25-34	132	26.8
	35-44	103	20.9
	45-54	115	23.3
	55-64	64	13.0
	65above	13	2.6
Highest level of education	GCSE level	35	7.1
	GCE A/L	95	19.3
	University Degree or equivalent	139	28.2
	Postgraduate level	148	30.0
	Other qualifications	76	15.4
Employment	Full time employed	277	56.2
	Part-time employed	90	18.3
	Self employed	31	6.3
	Unemployed	83	16.8
	Retired	12	2.4

Source: Survey data

Table 3. Model fit- structural model

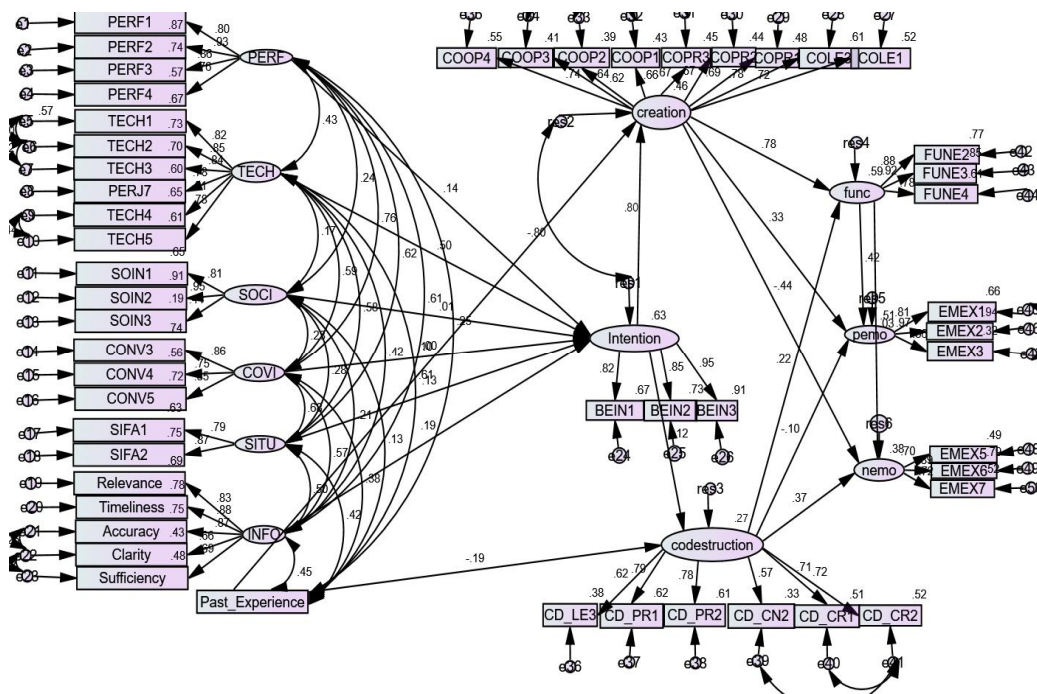| Absolute				Incremental			Parsimony
CIMIN/DF	RMR	SRMR	RMSEA	IFI	TLI	CFI	PGFI
2.605	0.061	0.508	.063	.951	.940	.951	.673

Source: Survey data

Fig. 2. Structural model

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4. RESULTS AND DISCUSSION

4.1 Determinants of Co-creation Intention in SSTs

The quantitative study found significant positive effects of performance (β= 0.145, p=0.002), tech-know how (β=0.503, p<0.001, information richness (β=0.186, p<0.001) and situational factors (β=0.133, p=0.002) on customer value co-creation intention in SSTs. However, 'convenience' and 'social influences' were revealed insignificant according to the study.

The literature found, 'expected performance' as a strong predictor in technology acceptance [16] as well as a predictor of attitude towards SSTs [87]. Li, Huang [88] similarly acknowledged 'task routine' and 'functionality of technology' as key determinants of value co-creation referring to technologies. Further, Hilton, Hughes [9] found 'consumer knowledge and skills' having a significant influence on the choice of SSTs complementing the present study. Equally, Meuter, Bitner [13] note the importance of customer 'abilities' on SST trials. Being aligned to this study, Liljander, Gillberg [89], Meuter, Ostrom [90] recongnise 'ability and willingness' in consumer evaluations of SSTs. Giving similar facts, Wang, Harris [30] revealed the consequences of 'situational factors' such as perceived complexity and perceived waiting time on the customer acceptance of self-scanning at supermarket stores. In harmony, perceived waiting time [7], perceived service complexity [91] have also been recognized as situational factors influencing selected SSTs. The importance of situational factors such as service complexity in SST adoption and waiting have also been found in prior studies (Oh, Jeong [15]. Demoulin and Djelassi [31] also discovered that situational factors including the basket size, time pressure, queue length at the SSTs and coupons impact the use of SSTs by customers. Though this study recognises convenience and social influence as insignificant, previous work show the importance of convenience in choice of SSTs.

4.2 The effect of Customer Value Co-creation Intention on Value Co-creation Practices and Co-destructions in SSTs

Customer value co-creation intention was found to have a strong positive significant effect on customer value co-creation practices (β=0.799, p<0.001) while having significant negative effect on value co-destructions (β=-0.125, P=0.043) in SSTs according to the present study.

Despite the fact that prior literature does not provide direct evidence on the effect of customer value co-creation intention on co-creation practices in SSTs, there were few similar contexts where the effect of intention/acceptance/trial on 'use behaviour' in SSTs/ technologies have been explained. Weijters, Rangarajan [21] and Blut, Wang [14] discovered that attitudes have an impact on the use of SSTs whereas Dabholkar and Bagozzi [87], Curran, Meuter [92], Curran and Meuter [93] discussed attitudes towards technology as factor which enables the adoption of service. Similarly, Venkatesh, Morris [16], Venkatesh, Thong [94] investigated the reactions of individuals towards the influence of technology on their intention and actual use of it incorporating the UTAUT model revealing significant effects. Venkatesh and Davis [95], Venkatesh and Bala [96] found the behavioural intention having a significant effect on the actual use behaviour of technologies with the use of TAM. Randall, Gravier [50] has established future intention as a vital element for co-creation practices.

4.3 The Effect of Past Experience on Customer Value Co-creation/Co-destruction in SSTs

A significant positive effect was revealed from the customer past experience on their value co-creation practices according to the findings of the study (β=0.101, p=0.009) while a significant negative effect on customer value co-destruction was further established (β=-0.188, p=0.001).

The prior literature suggests the effect of experience in the adoption of SSTs (Demoulin and Djelassi [31]. Wang, Harris [97] revealed prior habit as the most crucial determinant on the use of SSTs whereas Castro, Atkinson [10] identified that in a circumstance where the technology is new previous experience in using SSTs is crucial. Furthermore, individual differences [13] and consumer context [9] including the past experiences they had have also been recognized as important in the acceptance of SSTs.

4.4 The Effect of Value Co-creation/ Co-destruction on Customer Experience in Self-Service Technologies

As the findings of the study reveals, value co-creation has a significant impact on functional

Table 4. Summary of the findings

Hypotheses	Hypotheses	Standardized regression	Standard Error	CI (95%) Lower Upper		P Value	Decision
Performance -> Intention	H1a	.145	.052	.036	.269	0.00	Supported
Convenience -> intention	H1b	.013	.058	-.134	.129	0.98	Not Supported
Know-How -> Intention	H1c	.503	.047	.381	.615	***	Supported
Social Influence -> Intention	H1f	.008	.024	-.046	.074	0.74	Not Supported
Information Richness -> Intention	H1g	.186	.043	.093	.275	***	Supported
Situational Factors -> Intention	H1h	.133	.039	.036	.220	0.00	Supported
Intention ->Co-creation	H2a	.799	.056	.623	.865	***	Supported
Intention -> Co-destructions	H2b	-.125	.066	-.239	-.046	0.04	Supported
Past experience ->Co-creation	H3d	.101	.023	.013	.186	0.01	Supported
Past experience ->Co-destruction	H3h	-.188	.057	-.318	-.067	0.00	Supported
Co-creation-> Functional experience	H4a	.780	.076	.675	.864	***	Supported
Co-creation -> Emotional experience (P)	H4b	.328	.137	.158	.503	***	Supported
Co-creation -> Emotional experience (N)	H4c	-.439	.136	-.635	-.215	***	Supported
Co-destruction -> Functional experience	H4d	.217	.035	.128	.300	***	Not Supported
Co-destruction->Emotional experience(P)	H4e	-.102	.055	-.190	-.003	0.02	Supported
Co-destruction->Emotional experience(N)	H4f	.374	.058	.244	.496	***	Supported
Functional Ex:-> Emotional Experience(P)	H5a	.423	.103	.238	.583	***	Supported
Functional Ex:-> Emotional Experience(N)	H5b	-.031	.097	-.182	.238	0.70	Not Supported

experiences (β=0.780, p<0.001), a moderate positive effect on the 'positive emotional experiences' (β=0.328, p<0.001) with a a negative effect on 'negative emotional experiences' (β=-0.439, p<0.001). Further, customer value co-destruction is recognized to have a negative effect on customer positive emotional experiences (β=-0.102, p=0.025) while it is positive effect on their 'negative emotional experiences' (β=0.374, p<0.001). Nevertheless, surprisingly, a positive effect on ' functional experiences' was indicated by the value co-destructions (β=0.217, p<0.001).

Similar to prior literature [98], the present study further recognized customer value co-creation experience in self-service technologies is unique for each individual with the fact that the outcome is based on his/her own interaction with the SSTs. In consistency, Vargo and Lusch [32] stated value is "always uniquely and phenomenologically determined by the beneficiary" based on the experience they have from the service [99]. In addition, a a significant difference in the effect of customer value co-creation practices on functional experiences was revealed through the present study proving the inequality of customer value co-creation experience. Considine and Cormican [100] have identified functionality in SSTs while Mick and Fournier [101] explained the possibility of experiencing both positive and negative feelings for the new technologies simultaneously. Zhang, Hu [72] further recognized positive associations among the experience and customer engagement with reference to online brand communities.

As explained prior, a significant positive effect of customer value co-destructions on the functional experiences in SSTs was revealed as a surprising fact. Perhaps the underlying reason for the above findings might be because, nevertheless customers may experience value co-destruction in SSTs due to several facts, they may still have a belief in SSTs in providing the functional values including cost saving, solutions to busy lives while saving the time. Bitner, Booms [102] provide a similar view suggesting that when things go wrong in SSTs, customers tend to blame themselves either fully or partly for the failure. Hence, this could be a reason for being less dissatisfied with the relevant service provider. Therefore, blaming themselves, the customers may not be so much unhappy with the performance of the SST.

5. CONCLUSION , RECOMMENDATIONS AND FUTURE RESEARCH DIRECTIONS

According to the study findings, customer value co-creation intention revealed a significant positive impact on customer value co-creation practices while having significant negative effects on customer value co-destruction in SSTs. Similarly, customer previous experience also positively correlate with value co-creation while having a negative impact on co-destruction. Value co-creation practices resemble a strong positive effect on customer functional experiences and 'positive emotional experiences' whereas a negative effect on 'negative emotional experiences was identified. In contrast, co-destruction displays inverse relationships, having a positive effect on 'negative emotional experiences and negative effect on 'positive emotional experiences. Nevertheless, a significant positive effect of co-destruction was revealed on functional experiences while a functional experience was found to have a significant positive effect on positive emotional experiences in SSTs.

Referring to the contributions of the study, as Corley and Gioia [103] suggest, this study has catered in broadening the horizons to understand value co-creation in technological interfaces contributing to the 'scientific utility' in numerous ways. Accordingly, this study extends the literature specifically in the areas of Self-service technologies, value co-creation and co-destruction as well as customer experience. Further, as they suggest, the present study comprises 'practical utility' that offers managerial implications. It assists practitioners in comprehending why customers collaborate with SSTs, how value co-creation/co-destructions occurs and the way in which it links with customer experience. This understanding can be utilized by the service providers in understanding how to facilitate customer co-creation securing positive customer experiences while achieving competitive advantage through the design and delivery of value enhancing self-service technological interfaces from both strategic and operational perspectives.

Further, the study provides directions for future research based on the theoretical and practical limitations and the recognized gaps in the theory and practice in value co-creation in SSTs. First, this study explores customer value co-creation in common self-service technologies. However, the

findings may differ in different types of SSTs. Therefore, avenues are available for future researchers to focus on specific types of SSTs. In addition, as the representation of the older population was not substantial in the present study, it is recommended to direct the focus of future research in understanding the impact of demographics on value co-creation through SSTs.

CONSENT

As per international standard or university standard, respondents' written consent has been collected and preserved by the author(s).

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COMPETING INTERESTS

Author has declared that no competing interests exist.

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