Factors Influencing Live Customer Support Chat Services: An Empirical Investigation in Kuwait

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Abstract

This study investigates factors influencing live customer support chat services in Kuwait. Live Customer Support Chat represents a newly implemented type of customer service in E-commerce websites. Live Support Chat allows online agents through company's websites to answer customer questions, complaints, and concerns on the spot through a live chat session, which bypasses the traditional e-mail and web forms. The theoretical framework used in this study is based on the well-established Technology Acceptance Model and the Theory of Reasoned Action. The study tries to validate these theoretical frameworks in the context of Live Customer Support Chat to see if they can be equally applied to the E-commerce enlivenment as in the other technology fields. Using a sample of 324 respondents, the hierarchical regression revealed that factors such as usefulness, ease of use and attitude have a significant influence on customers' intention to use Live Customer Support Char services. Our model explains around 31% for the variance in customers' intention to use Live Customer Support Chat.

Keywords: Live support chat (LSC), Technology acceptance model (TAM), E-commerce, E-business, Internet social impact

1   Introduction

Recent research reveals that online customers are increasingly driven by a need for social interaction, in addition to instrumental goals [17]. According to [57] Internet has become an important media for businesses to communicate with their customers. With the advancement of technology and high speed of Internet, web vendors can provide different channels for the customers to communicate live with their sales representatives via Internet in an e-business environment. The increased use of these online sales representatives on websites is the obvious evidence of how important to provide the quality support for customers.

In a study by [8], a model of influence in social networks was shown to have change in consumer behavior patterns using an agent based interaction. According to [19] Blogging has become part of a consumer's decision making process when shopping online. A survey involving 327 blog readers as participants was analyzed in the empirical study to investigate whether the usefulness of bloggers' recommendations and trusting beliefs toward blogger had influence on consumers' attitudes and behavioral intentions toward online shopping. The results indicated that perceived usefulness of bloggers' recommendations and trust had significant influential effect on blog users' attitude towards and intention to shop online Another study by [73] indicated that store layout design has significant impacts on emotional arousal and attitude toward the website, and thus has a positive influence on purchase intention In addition, atmosphere has a more influential effect on emotional arousal than store layout design In response to this emerging picture of online customer preference, many companies have implemented Live Customer Support Chat (LSC), which is a type of service that is newly implemented at some E-commerce web sites that bypasses traditional customer service types such as telephones and e-mails factors examining LSC in non-western context. On their Web sites to supplement automated transactions. Online chat may refer to any kind of communication over the Internet which offers an instantaneous transmission of text-based messages from sender to receiver [6]. Online chat may address point-to-point communications as well as multicast communications from one sender to many receivers. Thus, the flow of communication is not hampered by delays. In [62] observation was made that service agents could handle at least three chat sessions simultaneously without significant increase in average chat duration. Other studies indicated that commercial live chat systems allow service agents to multi-task ten or more chat sessions. This feature is promoted by LSC vendors as a unique strength of live chat systems to maximize service productivity [32].

Although early attempts to implement LSC existed a few years ago in a limited number of websites, the wide spread and actual use of this technology has grown exceptionally only in the past 2 years to reflect a new paradigm in online customer service in e-commerce websites. LSC just recently became a new standard of service that online customers demand and expect while shopping or doing business online. According to [48] "To date, there has not been any published research that has set out to identify and integrate the collected empirical research findings on chat reference since its inception".

The use of LSC has grown significantly in recent years. LSC is viewed as a cost-effective way to reduce purchasing risk through increasing social interaction. It has also been regarded as a good method to respond to consumer questions, and to personalize the shopping experience. There is also evidence demonstrating that this customer service solution improves the online shopping experience, reduces perceived purchase risk and reduces purchase abandonment rates. [3], [6], [28], [33], [42], [50]. In fact, major U.S. banks, such as bank of America and Citibank, have all incorporated types LSC to optimize operations. Banks' interest in live chat comes after the emergence of relatively inexpensive technology that can restore some of the personal touch that was lost after armies of bank customer-service specialists were thinned through the wave of bank takeovers over the past decade [10]. The auto industry also has interest in using LSC on their websites. Dealerships have indicated that purchase request generation from the dealer's own website has increased tremendously by implementing LSC on the first day of using live chat [47].

[39] investigated patterns of interaction and participation in a large online course. 88 Korean undergraduates participated in online forum during 2 weeks. It was found that there was a comparatively high portion of metacognitive interaction and higher phase of knowledge construction. Online instructional strategies were suggested for successful online discussion, especially to achieve sustainable discussion.

[63] mentioned that CancerChatCanada is a pan-Canadian initiative with a mandate to make professionally led cancer support groups available to more people in Canada. They used interpretive description to analyze interview segments from 102 patients, survivors and family caregivers who participated in CancerChatCanada groups between 2007 and 2011. The results showed that online chat groups had significant effect in enhancing the knowledge and service available to cancer patients.

This study examines factors influencing the intention to use LSC. It also attempts to validate this new type of customer service through the well-established TAM Model. Several researchers have addressed the effectiveness of e-mail as a customer support tool [52]. Others have discussed online (not real-time) customer support such as filling out forms or browsing help menus [35], [51]. However, very little research was conducted to discuss the effectiveness of LSC [43]. This is surprising given the fact that new trend in online customer service because it solves customers'

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problems and concerns instantly on the spot. This research tries to fill out this research gap by examining this new type of online customer service LSC (Live Customer Support Chat). We live in an era that customers are more demanding requesting their questions, problems and concerns to be solved instantly on the spot, rather than waiting to receive a reply.

2   Literature Review and Hypotheses Development

Drawing on research from North America, Europe and Australasia there is a wealth of evidence that suggest that a wide variety of factors influence LSC usage behavior. These can be characterized as perceived usefulness, perceived ease of use, compatibility, subjective norms, trust, and attitudes.

2.1   Perceived Usefulness

Perceived usefulness has consistently been a strong determination of the intention to use technology. In the TAM literature, [24] used the term *perceived usefulness* to refer to the prospective user's subjective probability that using a specific application system, in this case LSC services, will increase his or her performance within an organization. Perceived benefits from LSC services occur when the new system is perceived as more beneficial than the traditional system it supersedes. In their empirical exploration of LSC service adoption, they found that perceived benefit is the major factor in using LSC services. The perceived benefit factor is closely related to perceived usefulness in the TAM theoretical model. The concept of utilitarianism is used to explain online behavior. A positive link between utilitarianism and duration of visit of web advertisements was found. This construct, too, seems to be closely related to perceived usefulness identified in the TAM literature use the initial TAM as proposed by [24] to study Social Networking Sites (SNSs) adoption. They confirm that perceived usefulness plays an important role in SNSs adoption behavior. [4] identify a strong influence of perceived usefulness on the behavioral intention to use SNSs. [34] also found that perceived usefulness is an important factor in the user's intention to adopt m-banking. In a similar vein, [58] have shown that perceived usefulness is a determining factor in user's acceptance of airline ticket reservation systems.

According to [47], the chat medium is rich in context, even without the nonverbal cues available in face-to-face interactions, and patrons and librarians make use of many stylistic and contextual devices in their interactions to build relationships and share meaning. [26] stated *We are in a time where online customers are more demanding and they need immediate answers to their questions and concerns rather than sending an e-mail and waiting-even for a few hours- to get a response. This is exactly what Live Customer Support Chat is all about.*

[20] Conducted a stud about knowledge sharing and learning effectiveness through an online environment. By evaluating and integrating the differences between interaction considerations and knowledge sharing, the proposed methodology transforms the interactions into knowledge flows to easily apply the concept of knowledge sharing. The learners assigned with interaction supported by knowledge sharing flows have better success in terms of learning effectiveness. That is, the concept of knowledge sharing significantly influences the interaction throughout the use of a learning platform and is a way to enhance the learning effectiveness.

Fostering interaction in the online classroom is an important consideration in ensuring that students actively create their own knowledge and reach a high level of achievement [9]. They conducted a study about fostering interaction through course features selected for this purpose in an online introductory nutrition course offered in a public institution of higher education in Hawai'i, USA. Features included synchronous discussions and polls in scheduled sessions, and social media tools for sharing of information and resources. Qualitative student feedback was solicited in response to the new course features. Findings indicated that students who attended monthly synchronous sessions valued live interaction with peers and the instructor [74] conducted an empirical study on information systems that use continuance model within an organizational setting. The authors concluded that perceived usefulness is an essential construct in user's acceptance and in achieving a better work performance. They extended the perceived usefulness construct by adding two additional dimensions: perceived efficiency and perceived effectiveness. In his diffusion of innovation paradigm, [60] also posits that the perceived benefit or relative advantage of innovation positively influences adoption rate. In a meta-analysis in the innovation research literature, [66] concluded that relative advantage was positively related to adoption. Similarly, [36] in a meta-analysis of the TAM, found a strong positive link between perceived usefulness and behavioral intention ($\beta = 0.505$). It follows that:

H1: Perceived usefulness of LSC services positively influences users' intention to use these services.

2.2   Perceived Ease of Use

Perceived ease of use refers to the degree to which a prospective user expects the target system to be free of effort [24]. TAM further suggests that perceived ease of use is instrumental in explaining the variance in perceived usefulness. This dimension is similar to the complexity or the perceived ease of adoption in the diffusion of innovation paradigm. Perceived ease of adoption can affect adoption behavior since an innovation that is easy to use can considerably reduce the time and effort required by the user and, thus, increase the likelihood of adopting the

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technology [71] Most studies on technology acceptance showed that perceived ease of use directly influenced attitude towards use [12], [14]. An empirical investigation by [22] showed that perceived ease of use and perceived usefulness have positive effect on the user's intention to use SNSs. [34] found that perceived ease of use has marginal effect on the user's intention to adopt m-banking, but it is an essential factor in determining why a user choose to adopt m-banking. In a study by [73], they applied correlation and multiple regression analyses to investigate the use of 3G mobile services and found that perceived ease of use is a significant factor that has positive effect on behavioral intention towards using 3G mobile services. In a study of technology adoption in government agencies, [29] found a statistically significant association between perceived ease of use and attitude, indicating the important role of the ease of use in the formation of users' attitudes. In a meta-analysis of the TAM, [39] found a strong positive link between perceived ease of use and behavioral intention (β = 0.186). It follows that:

H2: Perceived ease of use of LSC services positively influences users' intention to use these services.

2.3   Compatibility

Compatibility was originally one of the factors determining the diffusion of innovation rate in the diffusion of innovation paradigm. It refers to the degree to which the use of the new technology is perceived to be consistent with the potential users' existing values, previous experience and needs 63]. Prior studies indicated that compatibility had strong direct impact on behavioral intention in areas such as using group support systems [69], adopting new methodology for software development and using university smart card systems [38]. In a recent study of e-payment adoption in China, [30] found that only compatibility has a significant effect on respondents' intention to adopt the system. Compatibility may also influence behavioral intention through performance expectancy and effort expectancy [61]. For example, [16] showed that compatibility of telemedicine technology exerted a significant effect on perceived usefulness. In [46], an Integration between the TAM and Diffusion of Innovation (DOI) models took place to investigate the use of the electronic tax filing and payment system in Mauritius. The author found that compatibility is the next most important predictor after social influence. The results of the study indicated that if the technology is compatible with the working experience, personal needs and values, it is likely that the user will accept the system.

In a study by [57], Thai Internet users preferred using text chat to live communicate with online sales representatives on the websites. The reasons can be that Thai Internet users have high privacy concerns and medium level personal innovativeness. Hence, text chat seems to be the best choice that fits these characteristics of the users. Because text chat can still give users some privacy and users do not have to be so innovative to use text chat. It was also found out that perceived ease of use and perceived usefulness of communication channel can affect the user's choice of preferred channel. The users seem to choose the channel that they perceive the highest ease of use and usefulness

[40] Conducted a study investigating factors affecting business employees' behavioral intentions to use e-learning system. The authors combined DOI with TAM in their research methodology, and their results show that compatibility has a positive effect on perceived usefulness and on the employees' behavioral intention to e-learning systems. In a study by [31], they investigated students' use of SNSs. The findings of the study show that the use of SNSs was compatible with the lifestyle of the students. The study also revealed that the use of SNSs is common nowadays because of its usefulness and its compatibility with users' previous values. The study also found that compatibility has the highest impact on students' attitude toward the use of SNSs. It follows that:

H3: Perceived compatibility of LSC services positively influences users' intention to use these services.

2.4   Subjective Norms

Subjective norm (also called social norm) refers to users' perception of whether other important people perceive they should engage in the behavior (Mubarak et al, 2009). While TAM does not include subjective norm, the theory of reasoned action (TRA) identifies attitudes and subjective norms as the sole determinants of behavioral intention [53]. The theory of planned behavior (TPB), an updated version of TRA, also acknowledged the significance of subjective norms. Several studies found a positive relationship between subjective norms and behavioral intention [31], [45], [47], [75]. In a study investigating culture-specific enablers and impediments to the adoption and use of the Internet, [44] found that both social norms and the degree of technological acculturation can impact the individual and organizational acceptance and use of the Internet to empower the use of chat rooms. In another study examining culture-specific enablers and impediments to the adoption and use of the Internet in the Arab world, [55] found that social norms mediated by perceived usefulness is a factor explaining Internet adoption. Similarly, [47] found that both social norms and the degree of technological acculturation can impact the individual and organizational acceptance and use of the Internet. It follows that:

H4: Subjective norms positively influence users' intention to use LSC services.

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2.5 Trust

Perceived risk features prominently in the e-service research. [70] asserts that e-commerce risk can be conceptualized as a function of data protection and system reliability. Perceived risk was defined as consumer's belief about the potential uncertain negative outcomes from the online transactions. In the case of Web shopping three types of risk may be identified: financial risk, product risk, and information risk (security and privacy). On the other hand, some relating factors for gaining customers' trust are: appeal of the website, product diversity, distinctive branding, quality of service, and trusted security seals. In fact, trust can be viewed from several dimensions such as transaction, presentation, product and technology [70]. A holistic framework for trust was developed by [41], which can be employed to analyze the development and maintenance of trust in online transactions, and identify the parameters that can be used to increase trust.

In a study by [49] they attempt to acquire a better picture of factors influencing behavioral decisions in online shopping by identifying different targets of trust and discussing their antecedents and outcomes. The findings show that all the different types of trust identified in this study are critical determinants of perceived risk and attitude. Given the intense competition between online shopping sites, web site managers should strive to provide a safe and user-friendly shopping environment. In addition, the vendor can enhance trust by encouraging satisfied customers to provide positive endorsements

Prior empirical research incorporated trust into TAM in several ways. For example [65] extended TAM by adding the perceived Web security construct and found that high perceived Web security directly increases consumer attitudes towards e-shopping. Results also support trust as an antecedent of usefulness, ease of use, attitude [64] and behavioral intention [65]. The role of trust in using e-government services was explored by [14]. The authors ascertain that government agencies must first understand the factors that influence citizen adoption of this innovation. Their study stresses the integration of constructs from the TAM, DOI theory and web trust models. It follows that:

H5: Trust in LSC systems positively influence users' intention to use LSC services.

2.6 Attitudes

The social psychology literature on behavioral research has established attitudes as important predictors of behavior and behavioral intention [27]. In the original TAM model, attitude was viewed a mediating construct between perceived ease of use and perceived usefulness and behavioral intentions. The attitudes of the target users of information technologies (IT) can play a pivotal role in the eventual acceptance and use of the technologies. TAM and TAM2 posit that an individual's attitudes towards to use a system is determined by two beliefs: perceived usefulness and perceived ease of use [18]. Prior e-services research has established a positive link between attitudes and behavioral intention [1], [2], [13]. It follows that:

H6: Attitude towards LSC services positively influences users' intention to use LSC services.

3 Method

In this section we discuss our sampling and how it was acquired in the state of Kuwait as well as how the survey questionnaire was developed and distributed. We also discuss the different scales adopted including the perceived usefulness scale, the perceived ease of use scale, the perceived compatibility scale, the subjective norms scale, the perceived trust scale, the attitude scale and the intention to use scale.

3.1 Sample

The empirical study involved the administration of self-completion questionnaire to citizens in Kuwait. Data were collected using the drop-off, pick-up method [23]. This data collection method is widely used in studies conducted in the Arab world because of research difficulties such as obtaining random samples and reaching respondents using mail questionnaires [59]. A total of 500 questionnaires were distributed. Confidentiality of responses was emphasized in the cover letter with the title *Confidential survey* and in the text. To reduce social desirability artifacts, the cover letter indicated that the survey seeks *attitudes towards LSC services* and nothing else. In total 370 responses were received by the cut-off date, but 46 questionnaires were discarded because the respondents failed to complete the research instrument appropriately. The effective sample size, thus, was 324 with a response rate of 65%.

3.2 Measures

All questionnaire items, originally published in English, were translated into Arabic using the back translation technique [11]. The perceived usefulness scale was adapted from [67]. This scale includes five items (e.g. *using electronic LSC services would increase my productivity*). The reliability of this scale in this study was α = 0.878. The

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perceived ease of use scale was also adapted from [67]. This scale includes three items (e.g. *I find that the human interface of LSC system clear and easy to use*). The reliability of this scale in this study was α = 0.817. The perceived compatibility scale was adapted from [72]. This scale includes three items (e.g. *Engaging in online transactions via LSC system is perceived as consistent with my existing values, beliefs and needs*). The reliability of this scale in this study was α = 0.860. The subjective norms scale was adapted from [5]. This scale includes two items (e.g. *most people who are important to me think I should use LSC services*). The reliability of this scale in this study was α = 0.800. The perceived trust scale was adapted from [37]. This scale includes four items (e.g. *the LSC system may share my personal information with other entities without my authorization*). The reliability of this scale in this study was α = 0.917. The attitudes scale was adapted from [76]. This scale includes three items (e.g. *using LSC services is good idea*). The reliability of this scale in this study was α = 0.875. Finally, the intention scale was adapted from [76]. This scale includes three items (e.g. *I intend to use LSC in the near future*). The reliability of this scale in this study was α = 0.856.

4   Results

This section provides details about testing our study hypotheses. Two techniques were used to test the hypotheses: Product-Moment Correlations and Hierarchical Regression Analysis. The first technique was used to test the association among the six constructs of the model. The second technique focuses on the variables forming the hypotheses and eliminating the influence of the control variables having a moderating effect on franchising interaction.

4.1   Product-Moment Correlations

Though it does not prove causation, correlation can serve as predictor of causation. The product moment correlations between the variables are shown in Table 1. This table was constructed to get a feel for the associations among the six constructs constituting the model. Most of the correlation coefficients were significant and had the expected sign. Thus the constructs, in general, are highly related. However this result should be interpreted with some caution due to the large sample size.

Table 1: Correlation analysis results

	USE	EASE	SN	ATT	COMP	TRUST
EASE	.515**					
SN	.164**	.278**				
ATT	.623**	.603**	.221**			
COMP	.488**	.529**	.314**	.546**		
TRUST	.375**	.473**	.199**	.405**	.384**	
INT	.386**	.359**	.140**	.453**	.311**	.270**

4.2   Hierarchical Regression Analysis

Hierarchical regression analysis was used to formally test the research hypotheses. This method is also known as incremental variance partitioning [56].This approach allowed us to focus on the variables forming the hypotheses, and at the same time sieve out the influence of the control variables that might have a moderating effect on franchising intentions. Also, this method could be used to control the order of the variables entered into the regression model, allowing us to assess the incremental predictive ability of any variable of interest. [54] Diagnostic checks conducted (Figure 1) show that hierarchical regression assumptions were not violated.

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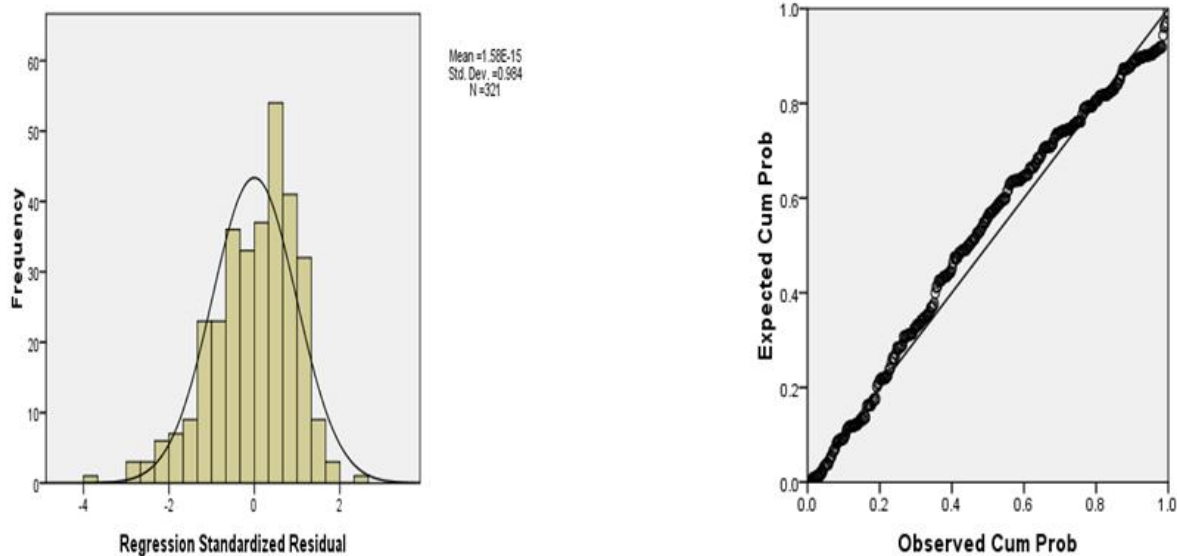Issam El-Moughrabi
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Figure 1: Hierarchical regression diagnostics

Table 2 shows the results of the hierarchical regression analysis used to test factors influencing LSC, income, age, gender, educational level were used as control variables in the first step of the regression. As shown in Table 2, these variables were significant at the 0.01 level. The control variables explained just 6% as indicated by the R-squared in model 1. This result corroborates previous research investigating interaction in other research areas. In fact, some authors argue that the explanations offered by demographic and personality factors are all distal in nature since these explanations merely apply to broad classes of behaviour, which makes it difficult to formulate guidelines for intervention. In the second step, perceived usefulness was entered because previous research found a positive relationship between use and intentions [15].The inclusion of this variable increased the explanatory power of the model to 22.1% (a change of around 15.7% in the R-squared). This change was found to be significant at the 0.01 level as shown in Table 2. These results supports hypothesis 1. In the third step, the ease of use variable was entered in the hierarchical regression analysis. This variable was entered based on previous research reporting a positive relationship between ease of use and intentions. The inclusion of this variable increased the explanatory power of the model to 25.9% (a change of around 4.1% in the R-squared). This change was found to be significant at the 0.01 level as shown in Table 2. Thus, hypothesis 2 was supported. In the fourth step, subjective norms entered. This variable did not reach significance level. Because the subjective norms play an important role in collectivist cultures like Kuwait, we expected subjective norms to be significantly and positively linked to the use of customer support chat services but this hypothesis was not confirmed. In fact Kuwait is highly globalized society with a lot of forieners living there. Thus, the traditional society seems to be eroding in Kuwait paving the way to a more Westernized culture. In the fifth step, the attitude variable was entered. The inclusion of this variable increased the explanatory power of the model to 30.5% (a change of around 5% in the R-squared). This change was found to be significant to at the 0.01 level. This result supports hypothesis 6. In the sixth step, the compatibility variable was entered but did not found to have significant influence on intention to use LSC services. Finally in step seven, the trust variable was entered but did not influence significantly customers' intention to use.

Table 2: Hierarchical regression results

	t	Sig.	R Square	R Square Change	F Change	Sig. F Change
(Constant)	6.824	.000	.064	.064	5.421	.000
Gender	-1.901	.058				
AGE	3.633	.000				
EDU	2.591	.010				
INCOME	-1.436	.152				
(Constant)	1.569	.118	.221	.157	63.404	.000
Gender	-1.779	.076				
AGE	4.503	.000				
EDU	1.910	.057				
INCOME	-1.452	.147				
USE	7.963	.000				
(Constant)	.155	.877	.259	.038	15.971	.000
Gender	-1.903	.058				
AGE	4.974	.000				
EDU	1.617	.107				
INCOME	-1.868	.063				
USE	4.960	.000				
EASE	3.996	.000				
(Constant)	.129	.897	.259	.000	.005	.944
Gender	-1.887	.060				
AGE	4.955	.000				
EDU	1.614	.107				
INCOME	-1.834	.068				
USE	4.949	.000				
EASE	3.856	.000				
SN	.071	.944				
(Constant)	.453	.651	.305	.046	20.692	.000
Gender	-2.628	.009				
AGE	4.994	.000				
EDU	1.033	.302				
INCOME	-1.930	.054				
USE	2.459	.014				
EASE	1.875	.062				
SN	-.325	.745				
ATT	4.549	.000				
(Constant)	.433	.666	.308	.003	1.203	.274
Gender	-2.677	.008				
AGE	5.063	.000				
EDU	.946	.345				
INCOME	-1.887	.060				
USE	2.248	.025				
EASE	1.570	.117				
SN	-.544	.587				
ATT	4.214	.000				
COMP	1.097	.274				
(Constant)	.080	.936	.311	.003	1.478	.225
Gender	-2.619	.009				
AGE	5.160	.000				
EDU	.885	.377				
INCOME	-1.810	.071				
USE	2.150	.032				
EASE	1.238	.217				
SN	-.588	.557				
ATT	4.093	.000				
COMP	.982	.327				
TRUST	1.216	.225				

Dependent variable: INT

5   Implications, Limitations and Future Research

The results of this study have several important implications for both theory and practice. From a theoretical perspective, our results corroborate the findings of other researchers who have investigated online customer service. The well-established DeLone and McLean Information Systems (IS) Success Model [25] showed that system quality, information quality and service quality have positive effects on the use (and intention to use) of the system, and thus, resulting in net benefits to the organization or individuals. It was empirically showed by [68] that service convenience and web site content both have a significant positive influence on how customers perceive web service quality. A survey by [50] of 236 international travelers who had purchased airline tickets from 30 different airline service websites in Taiwan. The results illustrate that customers' perceptions of both trust and usefulness, which are the factors of the technology acceptance perspective, positively moderate the relationship between e-service quality, perception of service value and service satisfaction.

The results of this research also showed that the Technology Acceptance Model (TAM) can be applied in the context of E-commerce and more specifically LSC. In other words, the dimensions of TAM were validated in the context of LSC.

From a practical perspective, understanding the factors influencing LSC allows providers to develop strategies for LSC systems implementation in ways that will improve the performance of businesses and agencies that benefit from the LSC services. Knowledge of these factors, how they can be measured, and how they relate to each other, is crucial in the development, implementation, and management of successful LSC systems [29]. This is because the decision to accept or reject a new technology is ultimately determined by the individual user. It is therefore imperative to know which factors affect a user's decision to use LSC system. This knowledge can then be used to enhance LSC services acceptance and correspondingly increase utilization. A key finding in our study is the positive relationship between perceived usefulness and ease of use and LSC adoption. Choosing to adopt LSC services is, then, a function of perceived usefulness and ease of use of the LSC Web site. Greater publicity regarding the usefulness of LSC services and their resulting savings would also introduce greater awareness and improve their perceived benefits in the eyes of potential users. The portrayal of an up-to-date and effective LSC system may encourage more customers to make queries and download forms, leading to significant cost savings and efficiency gains for both providers and users.

Attitude was found to be one of the most important factors in determining LSC services usage. Because LSC providers may be required by law to share information with other agencies, the need to foster positive attitudes and maintain accurate citizen information will increase. Thus, a strategic aim could be to develop a trustworthy relationship with the public, giving assurances that their data will be secure, and that the information contained on the Web would be both current and accurate. This can be done through tools and techniques that Web developers can use to increase and promote the security of LSC Web sites, such as firewalls and encryption technology. Therefore, LSC services need to be user-friendly, and users need to have confidence in the system. In this process, LSC providers need to be careful to protect its brand and credibility.

Like any other study, our study suffers from a number of limitations. First, this study has used a cross-sectional rather than a longitudinal approach. This implies that much more emphasis has been placed on observing respondents' behaviors than in observing changes in behavior. Hence, there would seem to be a need for much more longitudinal research to focus on observing changes in respondents' behavior over time. Second, the measures used in the study are based on self-reports of past behaviors or predictions about future actions. Though such self-reports often represent fairly good approximations of actual behaviors [7] has clearly have limitations. In particular, socially desirable past behaviors and intentions are usually over-reported and less desirable past behaviors are under-reported. Future research should examine the potential impact of social desirability bias on consumers' responses to questions about LSC services usage behavior. Finally, for the purpose of this research, a quantitative approach was adopted to identify respondents' behavior regarding LSC services. The use of quantitative methods alone is valuable in establishing relationships between variables, but is considered weak when attempting to identify the reasons for those relationships [21]. Using qualitative research along quantitative methods in future studies may enable us to further explore relationships amongst variables.

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Appendix A: Live Customer Support Chat Survey Questionnaire

Dear Participant:

The following survey is about *Live Customer Support Chat*. This is a relatively new customer support type that exists online in many web sites. It enables the web site customer to instantly chat with a customer service representative and get answer to his questions and concerns on the spot.

We ask you to please indicate your perception about the performance and features of *Live Customer Support Chat* through a scale of 1 to 5 (1: strongly disagree; 5: strongly agree).

Thank you.

	Statement	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1	Online chat support is useful in solving my problems.					
2	Online chat support is useful in solving my problems more quickly.					
3	Online chat support is useful in increasing my productivity because I have more time to work on other issues.					
4	Online chat support is useful in increasing my effectiveness in finding ways to solve my problems.					
5	Online chat support is useful in making my problems getting solved easier.					
6	Online chat support is easy to use.					
7	Online chat support is clear and understandable.					
8	Online chat support is easy to learn.					
9	Online chat support makes it easy for me to become more skillful in dealing with my problems.					
10	Online chat support features and use are easy to remember.					
11	I feel I have control over the use of Online chat support.					
12	My friends who are important to me think I should use online chat support.					
13	My superiors/advisors who are important to me think I should use online chat support.					
14	I like using online chat support.					
15	I feel good when I use online chat support to solve my problems and inquiries.					
16	Overall, my attitude towards online chat support is favorable.					
17	I will strongly recommend other to use online chat support.					
18	Using online chat support is compatible with all aspects of my work.					
19	Using online chat support is completely compatible with my current situation.					
20	Using online chat fits well with the way I like to work.					

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Appendix A: Continuation

	Statement	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
21	Using online chat support fits into my work style.					
22	I believe the technologies supporting the online chat support system are reliable all the time.					
23	I believe the technologies supporting the online chat system are secure all the time.					
24	Overall, I have confidence in the technology used in the online chat support.					
25	The online chat support system has the ability to reliably solve my problems over the Internet.					
26	The online chat support system has sufficient expertise and resources to help me over the Internet.					
27	The online chat support staff has adequate knowledge to respond to my problems and inquires.					
28	The online chat support staff is honest with their customers.					
29	The online chat support staff acts sincerely in dealing with customers.					
30	The online chat support staff is concerned about consumer privacy.					
31	The online chat support staff keeps promises and commitments.					
32	The online chat support staff is trusted to keep my best interest in mind.					
33	I'm confident that the online chat support staff will not disclose my consumer private information to unauthorized parties.					
34	The system quality of the live customer support chat will affect my intention to use it.					
35	The information quality of the live customer support chat will affect my intention to use it.					
36	The service quality of the live customer support chat will affect my intention to use it.					
37	My trust in the live customer support chat will affect my intention to use it.					

Gender: ☐ **Male** ☐ **Female**

Age: ☐ **Years**

Do you use/have used Live Customer Support Chat? ☐ **Yes** ☐ **No**