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Investigating Customer Satisfaction Levels with Self Service Technology Within the Banking Sector: (A Case Study of Automated Teller Machines (ATMs))

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Abstract: The study investigated customer satisfaction level towards self-service technology within the Ghanaian banking industry. Specifically, the objectives of the study were to identify customers' attitudes towards Technology Based Self-Service, to measure customers' satisfaction level with Technology Based Self-Service, to establish the SSTQUAL variable that had the most significant impact on the respondents' satisfaction levels towards Technology Based Self-Service and finally to establish the challenges customers had with Technology Based Self-Service. This study cross sectional research design hence, quantitative methodology was adopted. The study employed probability sampling specifically simple random sampling to select the study participants. Subsequently, the study used the Krejcie and Morgan (1970) sampling table to determine the sample size for the 7500 population size. Based on the table, the sample size for this study was 365 with a 95% confidence interval and 5% error of margin. Since the study was guided on the principles of quantitative methodology, this study used questionnaires solicit data for the data. The study distributed 365 questionnaires to the undergraduate students of the University of Education-Winneba, Kumasi campus. From the questionnaires distributed, a total of 175 completed questionnaires were returned to the researcher. Out of these, 135 were usable for analysis, giving an effective response rate of 41.54%. Data was subsequently analyzed using descriptive statistics such as Mean and Standard deviation. Inferential statistics included Pearson correlation, multiple regression (enter method) were used for the relationship analysis. Findings from this study showed that SSTs that ensured functionality, enjoyment, assurance, design and convenience in its setup or operation had the most significant impact on the respondents satisfaction levels towards SSTs, on this score it is recommended that banking institutions should try as much as possible to ensure that all its subsequent SSTs that may be introduced to its market segment are able to meet all these requirement in their operations.

Keywords: Customer Satisfaction Level, Self Service Technology, SSTQUA

1. Background of the Study

Ever since the internet got to its peaks in the early parts of the 90s, information technology has continuously changed the way customers experience a service encounter and their relationship with a service provider entities. Presently it is estimated that over 58% of US bank customers prefer to conduct their financial businesses online either via an ATM device or through their mobile phones (American Bankers Association, 2013). Likewise 59% of US customers equally prefer to shop their retail or groceries items on the internet (Nielsen, 2012), and 68% of airline customers worldwide check-in for their flight online, via mobile phone, or self-check-in kiosk at the airport (SITA, 2012).

Equally within the context of Ghana, statistics from the Ghana Population and Housing Census [PHC] (2010) indicated that over 1,312,971 of the population have access to internet facility. With this it has provided new opportunities for several businesses to incorporate self-service platforms within their service delivery systems using the internet as the leveller. For instance most of the commercial banks in Ghana have added mobile and internet

banking platforms to their service with the aim of enabling their customers to transact businesses with ease hence forfeiting the struggles and dissatisfaction they experience from the direct contacts with the banks employees. These statistics suggests that self-service technologies have come to stay and will continue to play a greater role in customers' service delivery across the various service sectors.

According to [15] the introduction of such technology-based self-service channels has made customers become "active participants" rather than being mere "passive audience" in the service delivery processes. As a result of this new trend many business entities have begun to recognize how self-service technologies can augment their productivity levels and likewise reduce their operation cost concurrently. For instance, it has been reported that the costs for a banking transaction can be reduced from $1.15 US dollars to only ¢2 cents by switching from a brick and mortar office to an online banking platform. Likewise a study by International Air Transport Association established that the number of passengers processed for a flight can be increased by up to 50 percent via self-check-in options (International Air Transport Association [IATA] as cited in SITA, 2009); or 2.5 employees can be replaced by one self-checkout kiosk at the grocery store (The Economist, 2009). Additionally further forecasts expect this trend in business practice to upsurge in the near future, especially in the hospitality, banking and health-care sector (The Economist, 2009) and through the rise of mobile self-service applications [17].

Moreover, the enormous enthusiasm about self-service technologies has not only caught on with the industry players but academic scholars have all joined this field through inquiry. For instance, ever since the first self-service offers and technology-based channels were introduced, research has underlined the value of this technology [18] and its benefits to customers as "partial employees" from a cost cutting and efficiency perspective [19].

Today almost every bank is using technology to deliver services to its customers with the hope of facilitating better services and experiences to its customers. As a result of its increasing usage across most industries it is expectant that both researchers and managers will conduct thorough enquiry to understand consumer satisfactions level towards SSTs after their usage since it has the potential to affect its sustainability [20].

Therefore [20] and [21] underscored in their studies that additional research will be required to understand how SST affect customers' satisfaction level after its usage. Similarly, [22] shared the same position when they argued that although previous academic enquiry has significantly enhanced our understanding of the drivers of the initial SST adoption nevertheless little is known about what happens next.

Likewise, [23] posit that though much researches have embrace these channels for their cost-efficiency and likewise investigated the determinants of customers decision to adopt self-service technologies yet there is dearth in the literature with regards to customers satisfaction levels of self-service technologies.

Arguably one could say that the wide adoption of SST is not only limited to advanced economies but gradually it has begun to find its space within the shores of Ghana as well. For instance, in Ghana most financial institutions are now providing self-service via either internet or mobile technology. The banks are hoping to rely on these platforms to differentiate their services from that of their competitors since most of the banks seem to be offering similar products or services. Nonetheless, despite the substantial investments that have been done by these banks in the adoption of these self-service technologies, it has become apparent that most of these banks are providing or just forcing the technology-based services on their customers without having carefully examined what the true experiences are or will be when customers eventually use these technology-based services. Therefore, it is imperative to know or understand how their customer experiences are when they use this self-service technology.

Accordingly, this paper sought to investigate customer satisfaction levels towards technology-based service encounters with special reference to ATMs.

Statement of the Problem

In the present fast-paced world, technology-facilitated transactions have gradually taken the lead in most customer service initiatives. The high ascendency of new self-service technology has degenerated into instances where great majority of customers interact with technology to create service outcomes instead of interacting with personnel of an organization. Today, not only can these SSTs provide a variety of self-services, including automated hotel checkout, flight ticket checkouts at kiosks or online, internet shopping, paying bills online, banking via ATMs, and self-scanning checkouts at grocery or discount stores to consumers [18], but can also produce the tremendous economic value to business entities as well (Burrows, 2001).

The significant impact of self-service technologies has not only been appreciated by practitioners, but equally by scholars as well. Ever since the first introduction of self-service offers and technology-based self-service channels, research has underlined the value of this technology [18] and its benefits to customers as "partial employees" from a cost cutting and efficiency perspective Lovelock & Young, [19]. Although, these enumerated impacts have been well documented in a number of research disciplines, ranging from information studies [24], management [25], to marketing literature [26]. Next to the advantages for service providers, research has also highlighted numerous advantages of self-service channels for customers, such as an increased convenience (i.e., through greater accessibility and availability) and improved control during the service process [27]. Given its apparent benefits for both the customer and the provider, many researchers have also investigated the key antecedents and characteristics that are likely to predict customer's intention to use these technologies [27].

Admittedly, present studies have highlighted the benefits of self-service channels nonetheless, it has mostly disregarded its impact on customers thus its ability to satisfy

customers perceived thought after its usage [30].

On this score authors like [33], [34] have all argued that instead of emerging studies seeking to look into customer satisfaction levels with self-service technology most have sought to investigate factors that will predict customers intention to use this technology. Similarly, scholars like [35], [36], [37] have all called for an in depth investigation into its impact on customers satisfaction levels.

Accordingly, this study seeks to fill the lacuna in the literature by investigating customer satisfaction level with self-service technology within the banking industry in Ghana which over the years has witnessed large influx of self-service embedded devices into its space of business operations.

2. Literature Review

2.1. Definition of Concepts

The term 'self-service technologies' (SST) was first used by [18] who defined the concept as 'technological interfaces that enable customers to produce a service independent of direct service employee involvement'. This term and definition gained wide acceptance in subsequent research by other authors [54].

According to [3] self-service technology channels entail a mere interaction between customer and technology. Thus, the service provider representative is no longer directly involved in the provision of the service.

Likewise [4] viewed SST as automated services that customer avail in self-service mode using various electronic mediums, without any interaction with representative or employees of an organization.

Accordingly, self-service channels require users or consumers to become actively involved in the entire service process [5] and deliver the service through the mere interaction with the firms automatic system (i.e., the information technology). From the perspective of [6] customers are not only co-creators of value in self-service channels, but also active co-producers of the core offering itself.

A review of the two definitions provided by both Kumar and [3] sought to view the concept SST as a platform or medium that enables a consumer to receive a service without a direct contact or interference from the employee of the service provider. From this perspective the definitions can be said to be similar and for that the study will adopt the definitions of both authors as the working definition for the study.

Moreover, the other concept to be defined is customer satisfaction. To [8] is in effect the satisfaction of the consumer's fulfillment response. Thus to the author, it is a judgment providing a pleasurable level of consumption-related fulfillment.

Equally [10] viewed customer satisfaction as the difference between customers' expectations and experienced performance after using a service and/or product at a certain period.

Clearly all the above definitions depict that customer satisfaction only becomes apparent when a customer had used a product or service and can afterwards conclude whether the experienced value exceeded expected value or not. If the customer experience far exceeded his or her initial expectation then it can be confirmed that the customer will have a positive attitude towards the organization product or services or be more satisfied with the organization products and services. In contrast if his or her experience is far below his or her expectation then it will become evident that the customer will eventually espouse negative attitude towards the organization products or services.

These views confirm most of the scholars' assertion that satisfaction is a cognitive function of a comparison between expectations and performance where most view it an overall affect elicited during the acquisition and consumption of a product/service [11].

2.2. Theoretical Foundation

According to [12] a quite large number of measurement scales have been developed to assess specific service quality dimensions. A notable among them are the SERVQUAL which measures consumer-to-service representative quality; the technology assessment model (TAM) which measures the potential drivers and inhibitors of technology acceptance and the Lin and Hsieh's SSTQUAL scale which measures the service quality of a SST [13]. However, it have become evident in the literature that several studies have adopted Lin and Hsieh's SSTQUAL and it has equally been argued to be one of the leading scale for measuring the quality of consumer-to-technology interactions [14]. Accordingly the SSTQUAL will be employed as the theoretical foundation for the study.

Arguably the researcher decision not to employ a traditional service quality measurement scale but an e-service scale was informed by the argument made by [39].

The authors held that e-services/SST are entirely different from traditional services due to their characteristics and the way and manner they are been operated. Hence, [41] held that these distinctions between personal services and e-services presuppose that it ought to be measured differently from the traditional service quality.

[42] Proposed seven dimensions in their SSTQUAL measurement scale. They include functionality, enjoyment, security/privacy, assurance, design, convenience and customization. Likewise authors like [43] have all confirmed the validity of [42] service quality dimensions in their respective studies when they tested some of the constructs in their respective studies.

According to [42] the functionality construct looks at the functional aspects of SST thus in terms of its reliability, perceived ease of use and responsiveness. Interestingly, one could argue that the functionality construct in Lin and Hsieh's theory is somehow similar to Grönroos GAP functionality construct. Hence, to [45] assessment about a SST will be informed by its easiness-to-understand-and-operate.

From this assumption, customers who see a SST to have these inbuilt features will be more pleased to continue using it or discontinue using it. For instance, [46] established that when users of SST found the device to be complicated to use or understand, customers normally become frustrated and tend to have negative attitude towards its usefulness.

The next construct thus, enjoyment looks at the tests perceptions of perceived enjoyment during SST delivery and the outcomes of use [42]. Thus, customers' ability to have fun with the SST during time of use will have greater impact on their satisfaction levels towards the SST.

The third construct that is security and privacy seeks to measure the perceived security including fraud and general safety and loss of personal data [42]. Since per SST setup users will not be interacting directly with a representative from a service provider hence customers will have to be convinced that his or her personal data will be adequately protected or encrypted. On this premise the user is likely to assess the robustness of the SST by its ability to protect his/her transaction against any possible form of fraud. [47] Viewed insecurity as the feeling of distrust about the technology and skepticism about its ability to protect user's data or personal information. The author again added that the perception or feeling of insecurity may result in instances where the users may resist using the technology, postponing its usage or in some instance opposing its usage among his relatives or associates.

According to [42] the assurance dimension convey confidence to the consumer in terms of the competence of the SST. Therefore, what the consumer seeks to assess with this construct is to ascertain whether the SST has the capabilities to provide the services it has promise to provide or offer to its users across board.
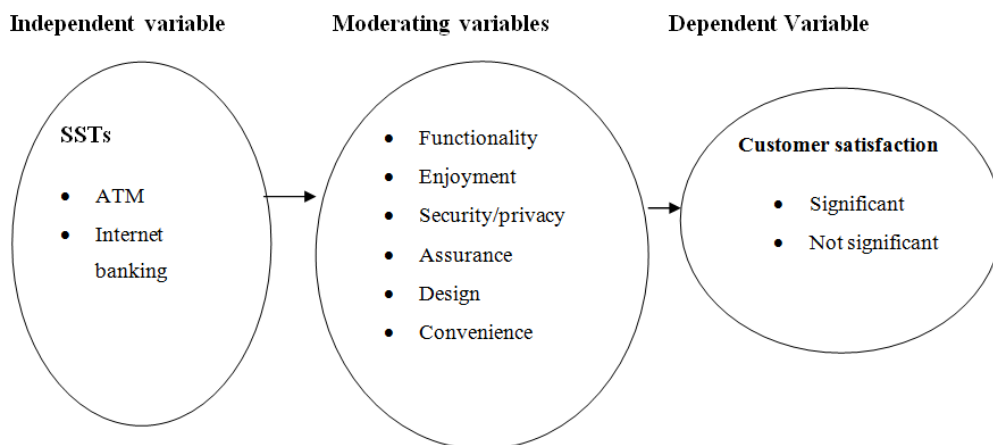
The design construct on the other hand looks at the overall design of the SST service system [42]. The design presupposes the aesthetical features of the SST. For instance, [48] argued that creating aesthetic and ergonomic values about SST improves customer satisfaction levels towards SST.

However, with convenience it seeks to measure how accessible and convenient it is for the consumer to use the SST service [42]. Hence, when a SST is perceived by the customer not to be accessible or convenient due to its location it will affect customer reaction to SST. [51] On his part viewed convenience as the easiness and simplicity of the customer using the SST or requesting services on it. [51] equally made a fascination synopsis about convenience; he posits that when customers visit an airport kiosk to check in to their flights, the process of entering valid details, checking-in and obtaining their tickets should be as simple and easy as possible for the interaction to be satisfactory. Hence, [51] viewed convenience as the capability of the SST to perform its functions with ease and without and challenges.

The last construct thus, customization looks at how customizable the SST is and if it can be adaptable to the individual needs of a customer. [42] Added that customer's value issues that speak to their personal concerns when using SSTs hence, SSTs that are able to tailor their services to the peculiar needs of the customers are viewed to be exceptionally well crafted. According to [52]customization is the ability of the SST to enable customers to go at a comfortable pace, offers them a variety of suitable options and enables additional privacy for customers.

As argued earlier in recent times Lin and Hsieh's (2011) SSTQUAL have been widely used to measure customer satisfaction levels towards SSTs accordingly, the study will equally employ the SSTQUAL as the theoretical foundation for the study.

Source: Adapted from Lin & Hsieh, 2011, SSTQUAL measurement scale

Figure 1. Framework for analysing the impact of SST on customer satisfaction.

3. Presentation and Analysis of Data

Customers' Attitudes towards Technology Based Self-Service

This study objective sought to establish the kinds of attitudes the respondents have towards self-services technology specifically their banks ATMs devices. Accordingly, respondents' ratings on their attitudes towards

their banks ATMs have been presented in Table 2.

Table 1. *Respondents Attitudes towards Technology Based Self-Service.*

Responses	SD Freq. (%)	D Freq. (%)	N Freq. (%)	A Freq. (%)	SA Freq. (%)
I think using SSTs is a wise decision since it saves me much time	-	15 (11.1%)	20 (14.8%)	30 (22.2%)	70 (51.9%)
I have a positive feeling transacting banking services on a SST	-	20 (14.6%)	15 (11.1%)	35 (25.9%)	65 (48.1%)
I think using SSTs gives me much freedom	10(7.4%)	5 (3.7%)	20 (14.8%)	20 (14.8%)	80 (59.3%)
I always prefer using the SSTs for your personal banking services	20(14.8%)	5 (3.7%)	10 (7.4%)	70 (51.9%)	30 (22.2%)
I feel safe when using SST for my banking transactions	-	15 (11.1%)	20 (14.8%)	60 (44.4%)	40 (29.6%)
I have confidence in my bank's SSTs	-	5 (3.7%)	20 (14.8%)	70 (51.9%)	40 (29.6%)

Source: Field Survey, 2017

Results from Table 1 show that most of the study respondents strongly agreed that using SSTs is a wise decision since it saves them much time. Hence 51.9% of the survey respondents held this position. This suggests that this segment of the respondents were very definitive in their level of agreement on this item. Similarly, 22.2% equally affirmed the views expressed by earlier respondents. However, their level of agreement fell within the agreed score. This suggests that in all 74.1% of the respondents agreed that using SSTs is a wise decision since it saves them much time.

In contrast, a small segment of the respondents' thus, 11.1% held varied views to the positions shared by 74.1% of the respondents. That is to them they disagreed on whether the decision to use SSTs was a wise decision. On this same item, 14.8% of the respondents could neither agree nor disagree on whether the use of SSTs was a wise decision since it saves them much time. Nonetheless, findings with regards to this measuring item suggests that generally most of the respondents thus, 74.1% agreed that the decision to use SSTs is a wise decision since it saves them much time.

Additionally results from Table 1 revealed that majority of the respondents thus, 48.1% strongly agreed when asked to indicate their level of agreement as to whether they have a positive feeling transacting banking services on SST. The 25.9% of the respondents also held equal views when they agreed that to them they have a positive feeling transacting banking services on SST. This suggests that in all 74% of the survey participants agreed that they have a positive feeling transacting banking services on a SST.

On the contrary, a little over 14% of the respondents disagreed. To them they do not have a positive feeling transacting banking services on a SST. Also 11.1% of the respondents could neither agree nor disagree when asked to indicate their level of agreement on whether they have a positive feeling transacting banking services on an SST. The third measuring item under this construct sought to identify the respondents' level of agreement as to whether the use of SSTs gave them much freedom. On this item, results from Table 2 show that most of the respondents thus, 59.3% strongly agreed to this issue. This suggests that they were very explicit in their level of agreement on this measuring item. Equally 14.8% off the respondents held similar views. To them their level of rating fell within the agreed rating. This suggests, that 74.1% of the respondents agreed that the use of SSTs gave them much freedom when compared to services provided by human personnel. On the reverse 7.3%

held a different view on this item. To them they strongly disagreed when asked to indicate their level of agreement as to whether the use of SSTs gave them much freedom or not. Likewise, 3.7% of the respondents affirm the views expressed by the earlier respondents'. Thus, this segment of respondent level of agreement fell within the agreed scoring. Findings with reference to this item suggest that generally 11% of the respondents did not agree that the use of SSTs gave them much freedom. More so, 14.8% of the respondents could not be definitive in their responses. That is they could neither agree nor disagree as to whether the use of SSTs gave them much freedom or not.

With the subsequent item, "I always prefer using the SSTs for my personal banking services", it became evident that most of the respondents rating on this item fell within the agreed score. That is 51.9% of the respondents agreed that they will always prefer to use SSTs for their personal banking services. Interestingly, this revelation is quite encouraging since it has been reported that SST saves institutions operational cost mostly the cost associated with human resources. Also, 22.2% of the respondents equally affirm the views of the earlier respondents but even went on further to show how strong they were willing to always use SSTs for their personal banking services. Hence, this segment of the respondents rating fell within the strongly agree rating.

Nevertheless, 14.8% of the respondents held a different view on this item. To them they strongly disagree when asked to indicate their level of agreement as to whether they were willing to always use SSTs for their personal banking services. A little over 3% of the respondents held similar views on this item. That is their level of agreement fell within the disagree rating.

However, 7.4% of the respondents could not be very explicit in their responses when asked to indicate their level of agreement on this issue. Thus, their level of agreement fell within the neutral scoring.

Findings from this study affirm the works of Cisco (2013) which surveyed 1511 consumers from 10 countries and reported that over 61% of the global consumers said that they were willing to shop at a fully automated store, and 52% preferred using self-checkout lanes on a regular basis.

Additionally on whether the study respondents felt safe when using SST for their banking transactions, it became evident that most of the respondents rating on this item fell within the agreed rating. This suggests that 44.4% of the respondents agreed that they felt safe when using SST for

their banking transactions. Again 29.6% of the respondents were very explicit in their responses to them they strongly agreed that they felt safe when using SST for their banking transactions.

In the reverse, 11.1% of the respondents disagreed to this issue when asked to indicate their level of agreement. This suggests that to them they did not in anyway felt safe when using SST for their banking transactions. Moreover, 14.8% of the respondents held that to them they neither agree nor disagree as to whether they can say they felt safe when using SST for their banking transactions or not. That is, this cross section of the respondents could not be definitive in their responses.

Finally on whether the survey respondents have confidence in their bank's SSTs, it was revealed that most of the respondents rating on this item fell within the agreed rating. That is 51.9% of the participants said that they have confidence in their bank's SSTs. Likewise 29.6% of the participants were very definitive thus, they strongly agreed that to them they have confidence in their bank's SSTs. In contrast, a small segment of the respondents that is, 3.7% held a different opinion on this item. To them they disagreed when asked to indicate their level of agreement on this measuring item. That is, they did not in their view have confidence in their bank's SSTs. Also, 14.8% of the respondents could neither agree nor disagree when asked to indicate their level of agreement as to whether they have confidence in their bank's SSTs. To them their level of agreement fell within the neutral score.

Findings, from the study suggests that most of the respondents had positive attitude towards their banks SST specifically ATMs since it guaranteed them convenience, freedom and reliability in terms of transactions done on their bank's ATM devices.

Findings from this study affirm the earlier views of Collier and Sherrell (2010) when they reported that when in most instances SSTs were found by users to provide them with control and convenience, the users tend to have positive attitude towards its usage. Likewise findings from the study corroborate the studies of Collier and Kimes (2012) which established that customers were found to have positive attitude towards SSTs when issues such as convenience and speed were assured in its operations. Findings from this study is inconsistent with the works of Arora et al. (2016) which established in their study that banking customers had negative attitude towards their banks' SSTs thus, ezwich devices.

Functionality Construct

According to Lin and Hsieh (2011) the functionality construct looks at the functional aspects of SST thus in terms of its reliability, perceived ease of use and responsiveness. Hence, to van Dolen, Dabholkar, and de Ruyter (2007) assessment about a SST will be informed by its easiness-to-understand-and-operate. Accordingly, respondents rating on their banks' SSTs functionality in terms of its easiness to use have been presented in Table 2.

***Table 2.** Respondents Ratings on Functionality.*

Responses	SD Freq. (%)	D Freq. (%)	N Freq. (%)	A Freq. (%)	SA Freq. (%)
I can get my transactions done with my bank's SST in a short time	-	5(3.7%)	30(22.2)	60(44.4%)	40(29.6%)
SSTs installed by my banking organization are simple and easy to use	-	10(7.4%)	20(14.8%)	35(25.9%)	70(51.9%)
Using my bank's SST requires little effort	-	15(11.1%)	20(14.8%)	70(51.9%)	30(22.2%)
My bank's SST is always available for business	-	15(11.1%)	-	50(37%)	70(51.9%)

Source: Field Survey, 2017

Results from Table 2 show that majority of the respondents agreed that they can get their transactions done with their bank's SST within a shortest time. Thus, 44.4% of the respondents said this. Likewise 29.6% of the respondents held similar view when asked to indicate their level of agreement on whether they can get their transactions done with their bank's SST in a shortest time. Hence to this segment of the study respondents they were more definitive that is strongly agreed on this item. Findings from this study suggest that 74% of the survey respondents agreed that they were able to get their transactions done with their bank's SST within the shortest time. On this same item only a small segment of the respondents held a different view on this item. Thus, 3.7% of the respondents held that they were not able to get their transactions done with their bank's SST within the shortest time. Interestingly, 22.2% of the participants could not tell as to whether they agree or disagree to this issue. This suggests that the respondents whose responses fell within the neutral score were even more than the respondents who earlier disagreed on this issue when asked to indicate their level of agreement as to whether they were able to get their transactions done with their bank's SST within the shortest time

Moreover, as to whether SSTs installed by their banking organizations were simple and easy to use, it became evident that most of the respondents ratings fell within the strongly agree rating. Thus, 51.9% of the respondents rating fell within this score. Samely, 25.9% of the respondents held similar views on this issue. That is their level of agreement fell within the agreed score. This suggests that that over 77% of the respondents agreed that their banks' SST were simple and equally easy to use.

On the contrary 7.4% of the respondents disagreed. That is to them their banks' SSTs were not simple and this presupposes that it was difficult to use. Interestingly, 14.8% of the respondents could not be definitive in their responses. That is to them they neither agree nor disagree on whether their bank SSTs were simple and easy to use.

Last but not the least the next item sought to ascertain from the respondents as to whether using their bank's SST requires little effort. On this item it was established that majority of the survey participants 51.9% agreed that using

their bank's SSTs required less effort. Also 22.2% of the respondents affirm the views expressed by the large percentage of the respondents. Thus, this cross section of the respondents rating fell within the agree rating. Hence, findings from the study suggest that 74.1% of the respondents agreed that using their bank's SST requires little effort.

In contrast 11.1% of the respondents held a separate view. Thus to them using their bank's SST requires much effort. Also, 14.8% of the respondents could neither tell as to whether using their bank's SST required little effort or not.

Finally, the last item sought to establish as to whether their bank's SST was always available for business. On this item it became evident that most of the respondents' ratings fell within the strongly agreed score. Thus, 51.9% of the respondents held this view. Also 37% of the respondents held similar views. That is their rating fell within the agree score. However, 11.1% of the respondents disagree to this issue. Thus, to them their bank's SST was not always available for business.

Findings from the study suggest that the understudied respondents banks' SST were easy to use, required lesser time to complete transactions and equally are always available at all times. Hence, this suggests that the respondents agreed that their banks SST met Riquelme and Rios (2010) and Annam and Yallapragada (2006) functionality characteristics thus, perceived usefulness, easiness to use and speed.

4. Conclusion

The first specific objective of the study sought to measure was to identify customers' attitudes towards Technology Based Self-Service. It became evident that most of the understudied respondents had a positive attitude towards SSTs. This suggests that most viewed it as beneficial to transact their banking business on their bank's SST.

The next objective the study sought to measure was to establish customers' satisfaction level with Technology Based Self-Service. With this study objective, it became evident that majority of the respondents were satisfied with the current SST of their banks' as it was easier for them to get their banking services faster. Also on the same research objective, it was revealed that more than half of the respondents were satisfied with their bank's SST as it was convenient for their schedules. Again it became evident in the study that a large segment of the respondents were satisfied with their bank's SST as the technology used was easy for them to use and understand. Finally on this same research objective it was evident that more than half of the respondents agreed that they were satisfied with their bank's SST as it was interactive and allowed quicker response from the service provider

The third objective was to measure the SSTQUAL variable that had the most significant impact on the respondents' satisfaction levels towards Technology Based Self-Service. With this study objective it became evident that the variables

that had the most significant impact on respondents' satisfaction levels towards SST were; functionality, enjoyment, assurance, design and convenience. However, security or privacy did not have any significant impact on respondents' satisfaction levels towards SST.

The final objective sought to establish the challenges customers had with Technology Based Self-Service. On this objective it became evident that issues such as; shortage of cash mostly during holidays, cards seizure mostly when transacting business on alternative bank's ATM, requested money during transaction are at times not received and cases of unreliable networks at the ATMs were identified by the survey respondents as the main challenges face normally encounter on their banks SSTs.

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