



Quality of the Accounting Information System Outputs and Customer Satisfaction in Jordanian Commercial Banks

**Dr.Mohammad Haider Alibraheem, Head of Accounting Information System Department,
Faculty of Financial and Business Science, Irbid National University, Irbid, Jordan,
alibraheem.m@inu.edu.jo**

Abstract

This study aim at examining the quality output of accounting information system and customer's satisfaction of Jordanian commercial banks. This study adopted "relevance, reliability, comparability, and consistency" as the quality characteristics of banking service. 401 questionnaires out of 431 were retrieved and useful for analysis. PLS (SEM) (PLS4.0) were used for data analyses. The result of this study shows that the quality characteristics of banking services ("relevance, reliability, comparability, and consistency") significantly affect customer's satisfaction. Filly, it has recommended the Jordanian banks to develop their accounting information system by improving the quality of the banking services delivered to customers.

Introduction

The improvement of banking services drive by unpredictable global circumstances, specifically strong higher competition in the banking sector and the advent of new concepts like corporate governance and accountability among others (Sujud & Hachem, 2019). This is additional to the several new development enticements that exist as opined by Salamee, (2002) like opportunities and threats linked with great advancement within information communication arena and high anticipations of clients, where service quality toward customers remain the measure trade-off between banks.

The incessant expansions in banking services and the greater customers' anticipations toward the excellence facility delivered need the banking managers to be aware of and monitor the perceptions, trends, and hopes of clients to excellence of services delivered. Also there is a demand to remain in touch to practical expansions in an accounting information structures and advantage from their features to recover the service level delivered to ensure the buyer satisfaction (Sujud & Hachem, 2019).

Information plays prominent part in the courses of bank's making-decision, whether for clients or staffs, which embrace decisions around enhancing the value of banking activities . The

superiority of assessments engaged relies upon value and features of information (Alathamneh, 2020).

The outcomes of the accounting information procedure often dedicated on monetary information planned to validate performance of an entity along its “monetary and non-monetary expenditures”. Thus, with method which accumulates the procedures of data transaction and circulates “accounting information” to attracted stakeholders, every enterprise which assumes its choices in any of its occupational and non-commercial dealings is dependable. Sufficient delivery of data and appreciating a value of info adequately and reliably aids in making the right conclusions and stand left for randomness and improvisation (Zayed & Sinha, 2019).

After the forgoing, the investigators might carry the notion of this work that is centered upon the value of an outcome of “accounting information system” within banks and customer’s gratification. This is based upon the fact that bank is dedicated primarily upon profits oriented, the pleasure and confidence of its clients (Al-rabei, Abu Taber, Alaryan & Abu Haija, 2015). The investigators pursued to exhibit the effect of “accounting information” structure outputs quality in banking centered upon pleasure of its clients and opinion.

Commercial banks performed a foremost effort in the whole economy and remain the central element around financial market . Similarly, they support the “capital market”. Hence method of accounting which serves foremost starring part for its victory plus capacity to entice clients. The bank's client gratification is mostly base upon quality of service expected, and the service superiority is openly proportionate to methods bank applied, whether managerial/accounting structures (Kanakriyah, 2017; Al-Rumhi & Al-Zeibah, 2011).

Henceforth, there is absolute relationship amongst “accounting information system quality outputs and customer’s satisfaction”. For instance, while a company surrenders to a bank for funding or credit services, its financial administrator repeatedly communicates with bank's organization to poses such services. The efforts “accounting information” structure of banks comprises “processing data entry” and “ultimate information” aiding the consumer's needs is noticeably emphasized here. Does “accounting information system” capable of providing customer's need in terms of time record and inside the bank's specified ethics and policies?

Theoretically, studies were conducted on accounting information system (Alathamneh, 2020; Al-rabei, Abu Taber, Alaryan & Abu Haija, 2015; Zayed & Sinha, 2019; Zayed & Sinha, 2019), but very few attempted to examine the “effect of quality of the accounting information system output on customer satisfaction” particularly in banking sector. This serves as the major gap in the literature.

Consequently, in an effort to address the important gap in the literature, this study pursued to point out the effect of the quality of the accounting information system outputs (consistency relevance, comparability, reliability) at the Bank on its customers satisfaction in Jordan.

Literature Review

Concept of Accounting Information Systems

Kassem,(2004). Like accounting figures performed imperative part in taking managerial conclusions, accounting information systems require to make certain a functioning of managerial structure. Accounting can be considered amongst oldest information structures acknowledged by establishments; meanwhile accounting information's significance remain recognizable in detecting financial plus economic certainty of an establishments with financial relations of an organization through the nearby environment.

Al-Jazrawi & Al-Janabi, (2009). The method can be described as the incorporated set interrelating fragments which accomplish a role together and realize its goals. Structure of Information might be measured as cluster of interconnected components which functions as a team retrieving, collecting, storing, processing, and distributing data for coordination, decision-making, analysis, controlling, plus observation within organization. Loudon & Loudon, (2008). Elucidated it as cluster of persons, communications techniques, equipment, databases plus software, working mechanically, automatically or manually to collect process, store,, and transfer data to recipient.

In the opinion of the investigators in this investigation, the method is cluster of sequential, unified, and integrated procedures that yield outcomes called outputs which aid the operator make correct decision. Therefore, any structure must comprise three rudiments:

Input ----- processing for input ----- outputs

It can also be elucidated as cluster of mechanisms connected together commonly to create expedient facts and converse these facts in time and suitable manner to consumers aiding them accomplish tasks allocated to them. Qasem (2003) identified key machineries of an information structure below:

1. “**Inputs:** terminology, data labeling occasions plus assets which go into system.”
2. “**Processing:** means system's practical side, that is a cluster of calculations and rationality which take place upon the inputs so as to bring the outputs.”
3. “**Outputs:** This signifies the outcomes which a system is working upon.”
4. “**Controlling:** refers to the cluster of ways and instructions intended to confirm that final outcomes attained are in line with the plans and goals set in advance.”
5. “**Feedback:** It targets to deliver a supervisory instrument for the system activities, and its mechanism to assess the outcomes of the system work and exact the targets if present faults in a system's goals.”

Through prior definitions, investigators specified that data structures are all-inclusive cluster of mechanisms, being it material or human mechanisms, that comprises components and techniques cluster which work via chronological and comprehensible approach over the system operation measures after inserting plus activating an information, planning outcomes, plus supplying them for groups benefits and recipients toward making choices required toward accomplishing their roles in the appropriate method.

Also, accounting information systems refers to “a cluster of procedures, systems, electronic procedures and persons which work inside an economic entity to process information and supply a data wanted by organization and other decision-making figures” (Ramli, 2011). Accounting information systems at this time remain accountable toward supplying financial plus quantifiable data toward every unit, divisions, e.t.c. So, accounting information systems can be described as “part of machineries for managerial establishment to generate, supply, process, evaluate categorize and communicate quantifiable and material information for external and internal decision making figures” (Al-Dhrawi, 2000).

Quality of Banking Service and Customer Satisfactions

Al-Nuaimi et al., (2009). Quality refers to the features of a product which provide satisfaction needs of customers, and differ according to kind of items, services and means of use. In this setting, the greater a quality, the more gratified the clients also the greater the profit and income of institutional productivity (Al-Nuaimi et al., 2009).

Maala, (2001) The banking facilities' superiority might be describe as dissimilarity amongst anything a client imagines from a facility and anything he obtains from a package like understood in an organization, and one a client's seen externally. The banking facility superiority is a cluster of gains, features, standards, and situations that matched to a service and ensures their acceptance by a client and which donates to filling their needs and requirements. This facts might be measured equal to their gratification amount.

Ahmed, (2013). Quality controlling extremely concentrated upon client gratification, also virtually completely its activity and interest are engaged toward accomplishing this objective that is at in front of his intentions. The user's outside concepts are acknowledged via several practices: defining customer's wants, material needs, plus worthy fairness. Data acquired via feedback, i.e a consumer's response, define a buyer's upcoming wants already observes it himself.

Shaasha, (2004). Though, commitment toward banking facility superiority aimed at accomplishing competitive benefit for a bank replicated certainly upon his earnings for key reasons as follows:

1. The obligation toward supplying excellent service moderates organizational and overall expenditures and aids to lessen mistakes and an effort as well as the time on employee and the purchaser, which supports to gain the faith and satisfaction of a client.
2. Providing excellent facility to maintain existing consumers and entice new clients, and lessen the probabilities of other financial service providers to entice them, that works for long to rise market segment thereby replicating positively upon profits.

Connection exists amongst the service quality and the client's satisfaction. Dissimilarity exists amongst the mechanisms of an association amongst the quality and satisfaction. Satisfaction influence quality evaluation and quality assessment affects satisfaction. The key dissimilarity amongst these two perceptions is that quality connects to facility itself plus by what method it shall be deliver.

Purchaser's satisfaction can be seen as an individual's happiness feeling or displeasure resultant from associating the observed performance of product by his hopes. When a performance become lower than anticipations, a buyer gains no satisfaction. When performance is along line with hopes, the customer gain satisfaction (Kotler & Killer, 2006).

Empirically, Bashmaf (2009) conducted a study looking at the association amongst service quality and purchaser gratification using banks around Jordan, a researcher employed descriptive statistics approach using 496 respondents, it has indicated that quality banking services positively relate with the customer satisfaction. Therefore, Jodanian banks strengthen their service quality and pay attention to the technological aspect in the banking services which will enable them to meet up the needs of their customers. Similar study was conducted in Lebanese by Sujud and Hachem, (2019) upon the "effect of the quality of the accounting information system outputs on the satisfaction of Lebanese commercial banks' customers" using 411 sample size clients from Lebanese commercial banks, their study found a positive connection amongst quality characteristic of banking facilities with customer's gratification. Similarly, in similar setting Bakin and Al Arid (2005) found positive relationship in their study assessing up-to-date automated technologies toward banking facilities improvement also their influence upon Bank's clients, the researchers use design questionnaire distributed to 532 respondents. Likewise, Al-Bahi (2016) targeted at recognizing an impact of e-banking services Quality upon customer satisfaction using the sample of Jordanian Islamic Bank around Amman and result of the study revealed a substantial relationship between an ease of use, confidentiality, safety and time saving and customer satisfaction. Daw and Teru (2015) also reported accounting information system has a greater benefit towards trades and companies for decision making procedure, financial report quality and center regulator. Finally, Shagari *et al* (2017) investigate the correlation between "quality measures for the success of accounting information systems, including information systems, quality of information, and quality of services that ultimately affect the effectiveness of accounting information systems". 287 questionnaires were returned and valid from respondents

in the Nigerian Banking sector. It has established that simplicity of use; efficiency, security are key structures. This added on timing, quality information, completeness and accurateness. Moreover, the quality of both information and that of the system significantly impact the effectiveness of “accounting information systems”.

Therefore, in line with the above literature reviewed, this proposed the following hypothesis:

H1: There is significant influence of the relevance of accounting information system output on customer’s satisfaction in Jordanian Banks.

H2: There is significant influence of the reliability of accounting information system output on customer’s satisfaction in Jordanian Banks.

H3: There is significant influence of the comparability of accounting information system output on customer’s satisfaction in Jordanian Banks.

H4: There is significant influence of the consistency of accounting information system output on customer’s satisfaction in Jordanian Banks.

Research Framework

It has indicated in this framework that this present study includes the following variables:

Dependent variable: Customer’s Satisfaction and Independent/Predictor Variables: Quality of accounting information system outputs (relevance, consistency, reliability, comparability,).

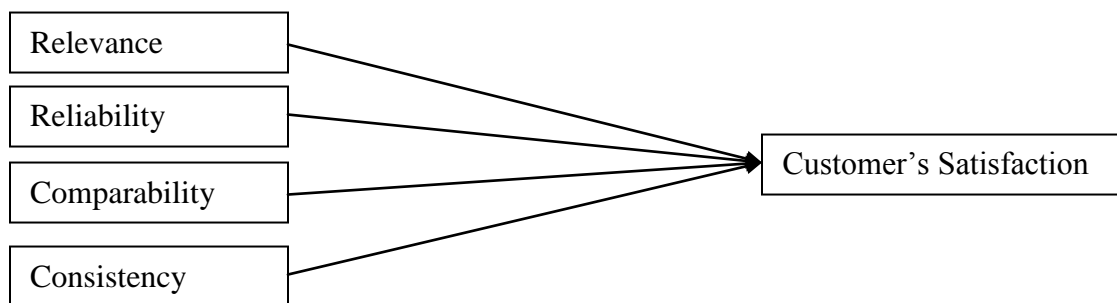


Figure 1: Research Conceptual Framework

Research Methodology

The quantitative research design and a cross sectional in nature where data collected once at a time using the adapted questionnaire from the previous study in five likert scale (Sujud & Hachem, 2019). 401 questionnaires out of 431 were retrieved and useful for analysis. Customers from three Jordanian Banks (Arab Bank, Bank of Jordan and Cairo Amman Bank) served as the unit of analysis for this study. A preliminary analysis and Data screening was conducted by keyed in and coded the data in to SPSS vn 25. Subsequently, second generation analysis

techniques (PLS-SEM (PLS 4.0) engaged to observe relations amongst the paradigms of hypothetical model.

Findings and Analysis

This segment offers results plus discussion achieving focal objective and testing proposed hypothesis of study which "The influence of the quality of the accounting information system outputs in Jordanians commercial banks on the satisfaction of its customers." The investigators choose to use Structural model in PLS-SEM (PLS4) to test an influence of following predictor/independent variables: "Relevance, Reliability, Comparability, and Consistency" upon criterion/dependent variable i.e Clients' Satisfaction of Jordanians profit-making banks. As presented below:

The Measurement Model

The measurement model's key target is to sieve the data, which is done for assessing and confirming reliability and reliability constructs earlier to forming the measures of goodness. The data remained examined via reliability indicators, accepted with 0.4. Whereas, for internal constancy, by means of composite reliability, 0.7 is measured acceptable level. Convergent validity via average variance extracted (AVE), which required to be 0.5 and beyond (Chin, 1998). In place of discriminant validity by means of factor loading, every element loading upon other construct beyond their loadings would be deleted (Hair, 2010; Chin, 1998). Hence, in order to satisfy the measurement model, some items were deleted: RNC3, RNC4, RNC10, RNC11, RNC12, RLT4, RLT6, RLT7, RLT9, RLT12, COM3, COM4, COM10, COM11, COM12, CON4, CON6, CON7, CON9, CON12 because they did not meet with the minimum benchmark (Chin, 1998; Hair, 2010). Henceforth, it is decided that an instrument adapted for this research work is reliable; meanwhile not any of the items is with lower than 0.4.

Individually item loaded upon their relevant construct ranging from 0.536 to 0.831, that is acceptable as any values range beyond the satisfactory point of 0.4 (Hair, Ringle, & Sarstedt, 2011;Chin, 1998). Similarly, the composite reliability, significance value starting from 0.826 to 0.941 which are beyond the suggested figure 0.7 (Hair et al, 2011). To define the discriminant validity, AVE was employed. The AVE ranges within 0.518 to 0.548, which are beyond the minimum reference point 0.5 (Hair et al, 2011). Lastly, to decide upon discriminant validity, the AVE is compared to correlation square off interconnected variables of concerned constructs that designates sufficient discriminant validity. Table 1 presents factor loading and Table 2 presents the discriminant validity.

Table 1: Factor Loading

| Items | Factor Loadings | Composite Reliability | AVE |
|-------|-----------------|-----------------------|-------|
| RNC1 | 0.789 | | |
| RNC2 | 0.794 | 0.726 | 0.536 |
| RNC5 | 0.557 | | |
| RNC6 | 0.793 | | |
| RNC7 | 0.719 | | |
| RNC8 | 0.775 | | |
| RNC9 | 0.813 | | |
| CS1 | 0.619 | | |
| CS2 | 0.764 | | |
| CS3 | 0.657 | | |
| CS4 | 0.793 | 0.826 | 0.548 |
| CS5 | 0.729 | | |
| CS6 | 0.812 | | |
| RLT1 | 0.569 | | |
| RLT2 | 0.688 | | |
| RLT3 | 0.753 | 0.941 | 0.518 |
| RLT5 | 0.714 | | |
| RLT8 | 0.767 | | |
| RLT10 | 0.536 | | |
| RLT11 | 0.724 | | |
| COM1 | 0.789 | | |
| COM2 | 0.794 | 0.826 | 0.548 |
| COM5 | 0.557 | | |
| COM6 | 0.793 | | |
| COM7 | 0.719 | | |
| COM8 | 0.775 | | |
| COM9 | 0.813 | | |
| CON1 | 0.569 | | |
| CON2 | 0.688 | | |
| CON3 | 0.753 | 0.921 | 0.528 |
| CON5 | 0.714 | | |
| CON8 | 0.767 | | |
| CON10 | 0.536 | | |
| CON11 | 0.724 | | |

Table 2: Discriminant validity

| Constructs | CON | RLT | RCN | CS | COM |
|------------|--------------|--------------|--------------|--------------|--------------|
| CON | 0.738 | | | | |
| RLT | 0.233 | 0.779 | | | |
| RCN | 0.298 | 0.515 | 0.740 | | |
| CS | 0.022 | 0.237 | 0.522 | 0.720 | |
| COM | -0.002 | 0.022 | 0.235 | 0.004 | 0.753 |

Structural Model

After reaching the requisite of the measurement ideal (construct reliability and validity), the subsequent stage was to assess the projected study hypotheses by running PLS Algorithm and Bootstrapping in Smart PLS 4.0. Table 3 depict the outcomes of hypothesis testing. Table 3, forecast statistical analysis evidence that H1 is supported where relevance of accounting information system output is significantly and positively related to Customers' Satisfaction ($\beta=.361$; $t=7.736$). There is a significant positive influence of Reliability on Customers' Satisfaction ($\beta=.437$; $t=9.687$), so H2 is supported. H3 is also supported, indicating a positive significant influence of Comparability on Customers' Satisfaction ($\beta=.215$; $t=4.823$), lastly, the result shows that Consistency also has significant influence on Customers' Satisfaction, therefore H4 was also supported. To summarise, four of the direct relationships between the latent exogenous and endogenous constructs are supported empirically, in line with their respective hypothesis statements.

Discussion, Recommendations and Conclusion

The primary objective of this study is to examine "The influence of the quality of the accounting information system outputs in Jordanians commercial banks on the satisfaction of its customers." Generally, this study has succeeded in advancing the current understanding of the key determinants of Customer's satisfaction by testing the above mentioned research hypotheses. The first objective was therefore to examine the relationship between relevance and Customer's satisfaction, which is to determine whether relevance of accounting information system output can be a good predictor of the Customer Satisfaction of Jordanian Commercial Banks. It was proposed that Relevance, Reliability, Comparability and Consistency are significantly influenced Customer Satisfaction of Jordanian Commercial Banks. H1,H2,H3 and H4 was thus formulated and tested using PLS path modeling. The relationship was found to be positively significant. This empirical finding agrees with the results of earlier studies (Bashmaf, 2009; Bakin & Al Arid, 2005; Al-Bahi, 2016; Sujud and Hachem, 2019), which argue that accounting information system output is significantly influenced Customer Satisfaction. In summary, this suggests that Banks in Jordan with effective reliable accounting information system will in turn leads to achieving higher customer's satisfaction.

Consequently, the two key reasons that bring customer's satisfaction by the banking accounting information system: the maintenance of customer's confidence within financial statements which

banks supplied concerning their transactions, and also the bank's eagerness to effectively identify and delivers generally the customer's requirements. There is arrangement by which most banks supply their customers with information which offers them the significance feature, anywhere it was established that an article of significance has received an utmost normal arithmetic amongst the rest of an excellent features. The researchers beliefs that the customer's satisfaction with quality outputs of an accounting information system is because of the capability of banks to provide accounting information system's output that is convenient and reliable.

Therefore, this study recommended that banks should encourage the idea of neutrality in practices of their accounting system, where the influence remained the least amongst the entire factors on customer satisfaction. Jordanian banks should discover a particular device over which they might take advantages from the wishes and opinions of consumers, and they must work to adjust and improve the accounting systems in place within these banks. This would help them to meet those desires and ensure that customers receive the service with an appropriate quality that satisfies their satisfaction.

Likewise, Jordanian banks should structure their divisions and departments so that they can make optimal use of accounting information systems when performing any of their activities or provide any of their services to customers. This would aid to expand the value of services supplied to clients, hence, gaining the satisfaction for prevailing customers and enticing new ones. They also educate their clients concerning the several coping instruments which might be completed using ATM and smart phones.

Finally, Banks should carry out enlighten programs for customers to update them in detail concerning the bank's procedures and policies. Future studies should conducted linking the element of the quality of the accounting information system individually with the customer's satisfaction (ie. Linking Reliability feature only with Customer's satisfaction) for more elaboration.

References

- Al-Bahi,S. (2016). "The Impact of the Quality of Electronic Banking on Customer Satisfaction: A Field Study on the Jordanian Islamic Bank in Amman, Jordan". Master degree, Middle East University, Jordan.
- Al-Jazrawi, I. & Al-Janabi, A. (2009). *Fundamentals of accounting information system*, Alyazoury publishers, Amman, Jordan.
- Alathamneh, M. S., (2020). The impact of accounting information systems reliability on enhancing the requirements of planning process at Jordanian commercial banks. *Management Science Letters*. (10), 1043-1050.
- Al-rabei, A. M., Abu Taber, T., Alaryan, L. A. & Abu Haija, A. (2015). The Role of Accounting Information Systems in enhancing Human Resources Management Cycle in Jordanian Islamic Banks an Empirical Study. *Australian Journal of Basic and Applied Sciences*, 9(20), 437-441.
- Al-Rumhi, N.M., & Al-Zeibah, Z.A.-H. (2011). *Accounting information systems*, 1st edition, Dar Massira for publishing & distribution, Amman, Jordan.
- Daw, H. & Teru, S. (2015). "Efficiency of Accounting Information system and Performance Measures".*International journal of multidisciplinary and current research*, 3. 22-34.
- Kanakriyah, R. (2016). "The Effect of Using Accounting Information Systems on The Quality of Accounting Information According to Users Perspective In Jordan" *European Journal of Accounting, Auditing and Finance Research*, 4, 221-229.
- Kanakriyah, R. (2017). The impact of accounting information systems on the banks success: Evidence from Jordan. *Research Journal of Finance and Accounting*, 8(17).
- Kassem, A. (2004). "Accounting Information Systems" Dar Al Thaqafa Library for Publishing and Distribution, 1st edition.
- Laudon, K. & Laudon, J. (2008). *Management Information Systems*", 11th ed, Prentice Hall Int, Inc.
- Maala, N. (2001). "Principles of banking marketing" Amman, Jordan.
- Qasim, A.R.M. (2003). "Computerized accounting information systems", Dar international scientific publication and distribution and the House of Culture for Publishing and Distribution, Amman, Jordan.
- Ramli, F.H. (2011). "Computerized accounting information system" Alabay for publishing and distribution, Sudan.

- Shaashaa, H. (2004). Measuring the quality of banking services provided by Palestine limited bank from customers' point of view, Master research, Islamic university of Gaza.
- Shagar, S., Abdullah, A., & MatSaat, R. (2017). "Accounting Information Systems effectiveness Evidence from the Nigerian Banking sector". *Interdisciplinary journal of information, Knowledge, and management*, 12, 24-35.
- Sujud, H. and Hachem, B. (2019). Effect of the Quality of the Accounting Information System Outputs on Customer Satisfaction in Lebanese Commercial Banks. *International Research Journal of Finance and Economics*, (176), 26-40.