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**"IMPACT OF E-BANKING ON CUSTOMER SATISFACTION"**

**Amith Kumar Reddy<sup>1</sup>, Dr. Megharaja. B<sup>2</sup>**

<sup>1</sup> **Research Scholar, Department of Commerce, VSK University, Ballari, Karnataka, India.**

<sup>2</sup> **Assistant Professor, Departments of Studies and Research in Commerce VSK University, Ballari, Karnataka, India.**

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**Keywords:- E-Banking, service quality, customer satisfaction, reliability, Lebanese banking sector, E-banking, Innovations, Technology, Customer Satisfaction, E-banking, Innovations, Technology, Customer Satisfaction.**

**Abstract:** The purpose of this study was to examine the relationship between the dimensions of E-Banking service quality and customer satisfaction to determine which dimension can potentially have the strongest influence on customer satisfaction. Data were gathered using a survey instrument, which was distributed among bank clients in the Lebanese banking sector. E-Banking has become one of the essential banking services that can, if properly implemented, increase customer satisfaction, and give banks a competitive advantage. Knowing the relative importance of service quality dimensions can help the banking industry focus on what satisfies customers the most. E-Banking has become an integral part of the global financial environment. Improvement in technologies and financial innovations has made electronised service in banking sector is an intense part of this study. "As day by day increasing the technologies are also increasing". Technology has become the fuel for rapid change.

In earlier times, the banking customers were required to visit in a bank in order to transact their accounts in the bank but now by the help of E-Banking the customers do not need to visit in a bank and with the help of internet, customers can easily transact their accounts from anywhere.

E- Banking is playing a major role that it's improving the service quality and strengthens the banking sector because of the electronic payment there is increase in customer satisfaction level, increased productivity, reduction in cost of banking operations, settlement faster and in large volumes.

The world has become a global village and it has brought a revolution in the banking industry because of increasing in the development of information technology. The key trends are discussed for their impact on future E-Banking services.

## **I. Introduction:**

Customer satisfaction is a measure of how products and services supplied by a company meet or surpass customer expectation. Customer satisfaction is also defined as the number of customers, or percentage of total customers, whose reported experience with a firm, its products or its services (ratings) exceeds specified satisfaction goals [1]. And yet another definition of customer satisfaction is it refers to the extent to which customers are happy with the products and/or services provided by a business. Further definition of customer satisfaction is it is a term generally used to measure a customer's perception of a company's products and/or services. It's not a straight forward science however, as customer satisfaction will vary from person to person, depending on a whole host of variables which may be both psychological and physical. The usual measures of customer satisfaction involve a survey with a set of statements using a Likert Technique or scale [2].

Technology is making a tremendous impact upon service companies in general and the financial services sector is no exception. The application of information and communication technology concepts, techniques, policies and implementation strategies to banking services has become a subject of fundamentals importance and concerns to all banks and indeed a prerequisite for local and global competitiveness in banking industry. As a result of this technological improvement business environment in financial sector is extremely dynamic and experience rapid changes and demands banks to serve their customer electronically. The evolution of e-banking started from the use of Automatic Teller Machine (ATM) and Finland is the first country in the world to have taken a lead in e-banking [3]. E-banking has been widely used in developed countries and in developing economies; however, the spread of e-banking is much limited. As suggested by Claessens, Glaessner and Klingebiel, developing countries in general have an advantage as they can learn from the experience of advanced economies [4]. Today, almost all banks are adopting electronic banking as a means of enhancing service quality of banking services. They are providing electronic banking to their customers to increase customers' satisfaction in banking service.

A study by Kumbhar on customer satisfaction towards e-banking services of ICICI bank in Chennai, India, which considered factors affecting on customer' satisfaction: an empirical investigation of ATMs service and examined that the cost effectiveness of ATM service were core service quality dimension and it was significantly affecting on overall customer satisfaction in ATM service provided by commercial banks [5].

In simple terms, E- banking means it does not involve any physical exchange of money, but it's all done electronically through the internet. E-banking provides faster delivery of banking services to customers and it provides lot benefits and banking facilities to customer that by sitting at home customer can access their account through internet. In today's organization information technology has become a necessary tool. It has introduced a new business paradigm; E-banking has emerged from such an innovative development. As day by day increasing the competition in the market is also increasing so to cope up with the pressure of growing competition the banks are adopting many initiatives and also from them there is one of them is

E- banking. Electronic banking is a combination of electronic technology with a banking sector. E-banking involves providing banking services to customers through various electronic delivery channels.

Technology has succeeded in making various aspects of life easier for the societies of today (Rust & Oliver, 1994). More importantly, it has become a fundamental element in improving the quality of services in general and E-Banking services in particular (Joseph & Stone, 2003). E-Banking service is said to rely on the exchange of information between customers and providers using technological methods devoid of face-toface interaction (Darwish & Lakhtaria, 2011). Banking sectors in most developed countries have pioneered the area of e-services and have been actively involved in its continuous improvement. The objective was to try to meet the ever-changing needs and lifestyles of modern clients. The Lebanese banking sector, core of the Lebanese economy, has been witnessing unprecedented growth, especially with regard to electronic services (Fakhoury & Aubert, 2015). The usage of E-Banking services by bank clients has grown in the past few years about 25% to 30% ("Bank to the Future," 2013). Indeed, Lebanese banks are strategically using advancements in E-Banking services for retaining and attracting clients, and are therefore making large investments in implementing the latest E-Banking strategies to maintain and augment their competitive advantage. Most of the previous studies examined Internet banking to the exclusion of all other types of E-Banking services including applications for smart phones and E-Banking robots. Many studies have investigated how E-Banking service quality is measured, but few have studied the relationship between the quality of E-Banking services and customer satisfaction in Lebanon. This study fills a gap in the literature because it addresses the E-Banking issue in its entirety without making any exclusions, and in Lebanon, a developing Middle Eastern country where, to the knowledge of the authors, no similar study has been conducted before. The implications of this study emphasize the significant influence of E-Banking service quality on customer satisfaction, and the important impact of E-Banking service reliability on service quality perceptions of banking clients. This study is organized as follows:

Banks are providing e-banking services to their customers

1. Internet Banking- In this transactions are conducted electronically through internet this is the method of banking. This is the fastest developing area and due to internet banking the economy is growing very fast and in this research mainly focus on the development and future of these platforms.
2. Automatic teller machine- This is modern device introduced by banks to enable the customers to have access to money day in day or without visiting the bank branches. It also operates 24 hours a day and 7 days a week. In this customer by using their ATM card can withdraw the money and for the desired transactions. In this there is an advantage of ATM is that this offer quick and efficient services and customer can choose his own time of banking at any time or any day of week.
3. Smart cards- It is typically made of plastic. Many smart cards include a pattern of metal contacts to electrically connect to the internet chip. Smart cards provide authentication, data storage, personal identification and application processing.
4. Electronic Fund Transfer- In this the transfer of money take place from one bank account to another through electronically either single institution or across multiple institution through computer based system.

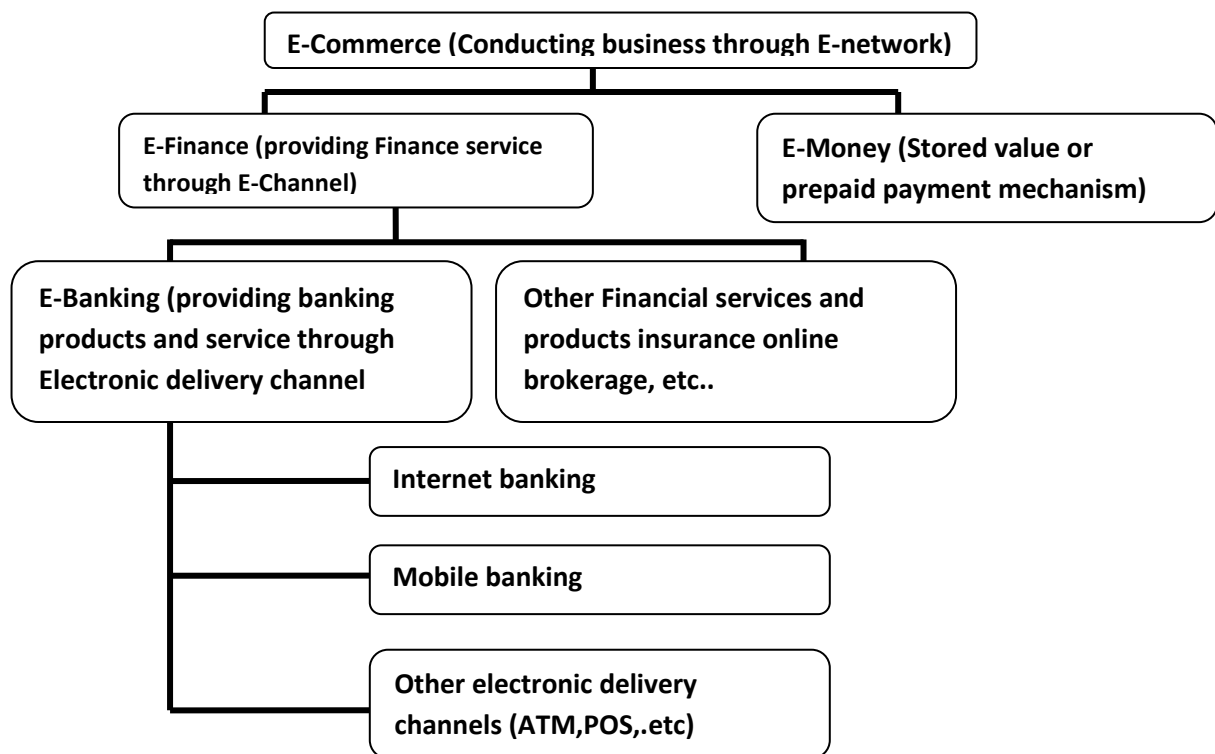


Figure 1: Flow chart of E-Banking

## II. Types of e-banking

There are many electronic banking delivery channels to provide banking service to customers. Among them ATM, POS, mobile banking and internet banking are the most widely used and discussed below.

**ATM:** Automated Teller Machine (ATM) is a machine where cash withdrawal can be made over the machine without going in to the banking hall. It also sells recharge cards and transfer funds; it can be accessed 24 hours/7 days with account balance enquiry [22].

**Internet banking:** Internet banking allows customers of a financial institution to conduct financial transactions on a secure website operated by the institution, which can be a retail or virtual bank, credit union or society. It may include of any transactions related to online usage. Banks increasingly operate websites through which customers are able not only to inquire about account balances, interest and exchange rates but also to conduct a range of transactions. Unfortunately, data on Internet banking are scarce, and differences in definitions make cross-country comparisons difficult [23].

**POS:** Point of sale (POS) also sometimes referred to as point of purchase (POP) or checkout is the location where a transaction occurs. A 'checkout' refers to a POS terminal or more generally to the hardware and software used for checkouts, the equivalent of an electronic cash register. A POS terminal manages the selling process by a salesperson accessible interface. The same system allows the creation and printing of the receipt. Because of the expense involved with a POS system, the eBay guide recommends that if annual revenue exceeds the threshold of \$700,000, investment in a POS system will be advantageous. POS systems record sales for

business and tax purposes. Illegal software dubbed 'zappers' is increasingly used on them to falsify these records with a view to evading the payment of taxes [24].

**Mobile banking:** Mobile banking (also known as M-banking, mbanking) is a term used for performing balance checks, account transactions, payments, credit applications and other banking transactions through a mobile device such as a mobile phone or Personal Digital Assistant (PDA). The earliest mobile banking services were offered over SMS, a service known as SMS banking. Mobile banking is used in many parts of the world with little or no infrastructure, especially remote and rural areas. This aspect of mobile commerce is also popular in countries where most of their population is un-banked. In most of these places, banks can only be found in big cities, and customers have to travel hundreds of miles to the nearest bank. The scope of offered services may include facilities to conduct bank and stock market transactions, to administer accounts and to access customized information [25].

### **Advantages of online banking**

In addition to being able to bank at any time, from anywhere, there are other advantages to banking online. You may also be able to:

#### **Pay bills online**

This might be one of the top advantages of online banking because you don't have to take time out of your day to go to the bank. You can simply log into your account and pay your bill online right away. For increased efficiency, you may also set up automated bill payments, which helps you manage your cash flow when you have monthly payments to and from vendors.

#### **Transfer money**

You may need to do a rapid money transfer to a client or vendor, or you may need to transfer money from one account to another. Instead of sending a registered cheque and waiting for it to clear, you may securely transfer the money online.

#### **Deposit cheques online**

Rather than driving to a bank branch and waiting in line, you may be able to deposit cheques online in minutes. And because most financial institutions have an app that replicates its services from your phone, you have the ability to always bank on the go. Plus, some banks offer 24/7 customer service, so you can speak to a customer service representative at any time.

#### **Lower your overhead fees**

If your business banks online, your banking fees may be lower, as online banks may not have to pay for the cost and upkeep of branches, and those savings may be transferred to you. Plus, they may have more no-fee options that add to your savings.

### **Disadvantages of online banking**

While online banking is always improving, there are some disadvantages for business owners reliant on immediate and constant access to their banking services.

### **Technology disruptions**

Online banking relies on a strong internet connection. If your internet is disrupted by a power outage, server issues at your bank, or if you're in a remote location, your ability to access your accounts might be affected. Scheduled site maintenance also means you can't access your accounts and may have to seek an alternative.

### **Lack of a personal relationship**

A personal relationship with your bank may be able to offer an advantage over online banking. If you need a business loan, a new line of credit, a waived fee or to make changes to your current banking needs, having that relationship can help.

In-person banking relationships can also help you craft a business account tailored to your specific needs. They can also make notes in your files about cheques, cash deposits and international payments so you can avoid extended holds on your money.

An ideal relationship would be a blend of online banking for your day-to-day transactions and a personal relationship with your banker to assist with bigger needs. That way, you have multiple options to support your business.

### **Privacy and security concerns**

Financial institutions have very good security, but no system is foolproof. Valuable information is always prone to hacks, but you might be able to prevent this if you:

- Always use the mobile app and the website directly. You should see a small lock to the left of the search bar, which indicates the site is secure.
- Make sure you have a strong password based on a combination of numbers, symbols and letters. It's also important to change your password regularly.
- Do not click on any links in text messages if you haven't agreed to that method of communication.
- Use two-step authentication, which adds an extra layer of security.

### **III. Limited services**

Hasan (2002) found that for attracting the customers the bank has emerged in a significant strategy that is online home banking. Rao et.al. (2003) had done theoretical analysis of internet banking in India and also compared to abroad bank and found that there is still have a long way to go for the Indian bank for offering online service and to reach at a critical mass there are sufficient infrastructure in place and also sufficient number of users. Mookerji (1998), Pegu (2000), Gupta (1999) and Das gupta (2002) found that in India Internet banking is becoming popular very fast and by the year 2005 there is a highly competitive internet banking market and a large sophisticated will develop, in India all most all the banks having their websites but there are few banks who provide transactional internet banking.

Online banking features a lot of services, but some of them still require business owners to go into banks to “wet sign” documents. This includes loan and credit applications, a large cash withdrawal or large deposits. But as online banking technology continues to evolve, you may eventually be able to electronically sign for these in the future.

These days, banks know business owners want the ease and convenience of online banking, so they’re constantly upgrading and improving their digital assets. You may take advantage of this rapidly changing banking technology and tailor an online banking system that is unique to your business needs. If you think online banking could benefit your business, talk to your bank about the time- and cost-saving advantages of going digital.

#### **IV. OBJECTIVES OF THE STUDY**

1. To study and identify e-banking services adopted by Indian banks.
2. To study the customer satisfaction level about the e- banking.

#### **V. LITERATURE REVIEW**

##### **Customer Satisfaction:**

Customer satisfaction is one of the most important concepts in the field of marketing studies today (Jamal, 2004). Broadly speaking, it links processes culminating in purchasing with postpurchase phenomena such as attitude change, repeat purchase, and brand loyalty (Churchill & Surprenant, 1982). Oliver (1980) explains that the feeling of satisfaction arises when customers compare their perception of actual product/ service performance with expectations. A number of varying definitions have been proposed to clarify customer satisfaction. Yet the notion of comparing postproduct/service performance with pre-formed expectations seems to be common to most definitions.

Oliver (1981) defines satisfaction as an emotional postconsumption evaluative judgment concerning a product or service. Similarly, Tse and Wilton (1988) defined customer satisfaction as a “consumer response to the evaluation of the perceived difference between expectations and final result after consumption” (p. 204). Satisfaction can also be described as the feedback of a postpurchase assessment of certain service/ product’s quality, and compared with the expectation of the prior-purchasing stage (Kotler & Keller, 2011). In contrast, other researchers have observed that the impact practiced within the purchasing and consuming stage of the product/service may also have an important effect on the customer’s judgments toward satisfaction (Homburg, Koschate, & Hoyer, 2006). Thus, customer satisfaction is a customer’s feeling of pleasure or displeasure after he or she has distinguished a performance of a product/service with respect to his or her expectancy (Keller & Lehmann, 2006).

Consistent with these definitions, and in so far as this study is concerned, customer satisfaction is the attitude of the customer formulated in response to using any form of E-Banking services. Accordingly, E-Banking attributes may increase, decrease, or keep the same customer satisfaction.

## **Customer Satisfaction and E-Banking**

One main objective of this research is to understand to what extent the quality of electronic services offered by banks would affect the satisfaction of the customer in the Lebanese banking sector. According to Grönroos (1998), there is a steady and positive relationship that gathers both the E-service quality and customer satisfaction. Indeed, Parasuraman, Zeithaml, and Berry (1988) also conclude in a study that the relationship between quality of service and customer satisfaction is very sturdy and durable (Parasuraman et al., 1988). To check this relationship, Jain modifies it in an easier formula and reaches the conclusion that great customer satisfaction immensely depends on receiving a better and higher quality service (Jain & Gupta, 2004). A number of additional studies point out to a relationship between customer satisfaction and E-Banking services. In their research, Asiyanbi and Ishola (2018) demonstrated that the satisfaction degree of customers in the banking sector increases when using E-Banking services (Asiyanbi & Ishola, 2018). Similarly, Ranaweera and Neely (2003) verified that the quality of E-service is the first step of customers' satisfaction (Ranaweera & Neely, 2003). Likewise, research conducted in the banking sector by Bei and Chiao (2006) recognized a major relationship between the quality of the service and the customer satisfaction degree of customers. Finally, Zhou (2004) stated that the E-Banking service quality related to reliability has a significant effect on the degree of customer satisfaction.

### **Dimensions of E-Banking Service Affecting Customer Satisfaction**

With a number of studies converging to show a relationship between E-Banking service and customer satisfaction, the Hammoud et al. 3 question becomes the following: What aspects or dimensions of E-Banking service affect customer satisfaction and in what ways? Our review of the literature reveals that these aspects could be grouped under efficiency, reliability, privacy and security, and responsiveness and communication. Speed in performing E-Banking services is a determining factor of customer satisfaction according to Parasuraman, Zeithaml, and Berry (1985). Efficiency in terms of quick speedy service is also confirmed by Wirtz and Bateson (1995) and Khadem and Mousavi (2013). Liao and Cheung (2002) find reliability as one of the most important features that customers seek in evaluating their E-Banking service quality. A similar result was also obtained in an empirical study done by Kettinger and Lee (2005). With respect to privacy and security, a number of elements were identified and studied by researchers including maintaining the confidentiality of operations, refraining from sharing personal information, and insuring a good level of security for the customer's information (Agarwal, Rastogi, & Mehrotra, 2009; Datta, 2010; Poon, 2007). According to Madu and Madu (2002), responsiveness is the readiness to support the bank's customers and deliver them a rapid service. This kind of service can be shaped into four forms. First, the E-Banking system can control and operate the service properly. Second, the E-Banking channels can guide customers toward proceeding properly in case of any failing operations. Third, it can also cover a rapid solution for any possible error in E-Banking transactions. Finally, it can support the customer's questions with on-the-spot response.

## **VI. METHOD**

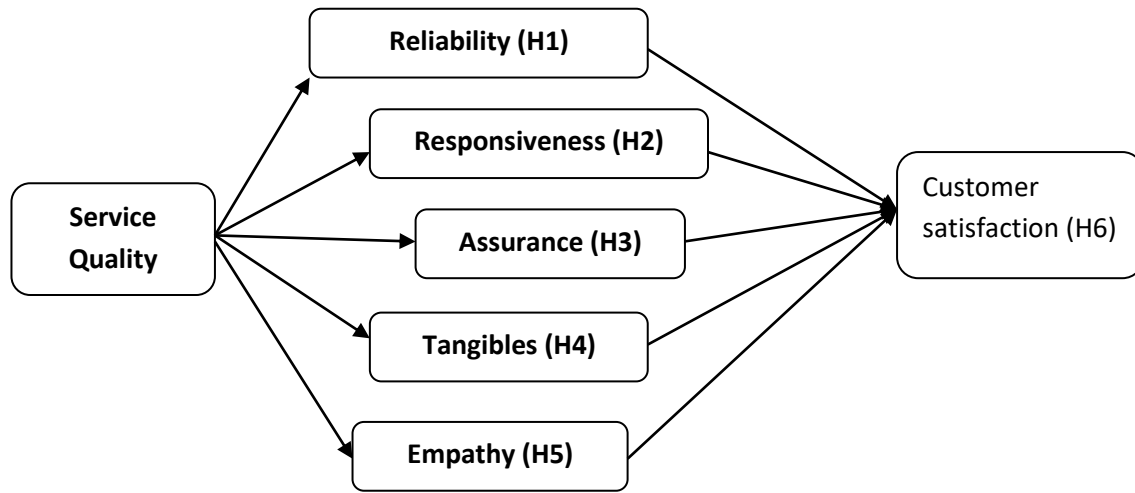
the main overall hypothesis in this study proposed a positive and significant relationship between Service Quality of E-Banking and customer satisfaction with E-Banking, this main hypothesis



was broken down into four testable hypotheses related to the four independent variables considered, as follows:

**Hypothesis 1 (H1):** The efficiency of E-Banking services positively affects customer satisfaction. **Hypothesis 2 (H2):** The reliability of E-Banking services positively affects customer satisfaction. **Hypothesis 3 (H3):** The security and privacy of E-Banking services positively affects customer satisfaction.

**Hypothesis 4 (H4):** The responsiveness and communication in E-Banking service positively affects customer satisfaction.



**Figure 2: Conceptual Framework**

## VII. FINDINGS

1. Level of usefulness of e-banking services is significantly less for rural bank customers when compared to their semi-urban and urban areas.
2. It is found that “time saving and less cost” tend to influence the bank customers, intention to continue using the internet banking site in the future.
3. Rural, semi-urban and urban areas respondents have viewed that e- banking as convenient and easy to use and as a good option next to traditional banking but they have perceived that use of new technology like internet banking is complicated and difficult.
4. Internet banking is very important for present and also for the future development for bank customers and the importance of internet banking is significantly related to their age, education, occupations and income.

## VIII. NTERPRETATION AND DISCUSSION

The findings of this study showed not only that service quality is a factor that has a significant relationship with customer satisfaction with E-Banking services but also that reliability is the strongest dimension of service quality affecting customer satisfaction. This is supported by previous research (Bedi, 2010; Kumar, Mani, Mahalingam, & Vanjikovan, 2010; Tan & Teo, 2000), which suggested that service quality is an antecedent of customer satisfaction with a

significant and positive influence on it. The findings also showed that the four independent variables (efficiency and ease of use, reliability, security and privacy, and responsiveness and communication) as related to the quality of E-Banking services have a significant effect on customer satisfaction in the Lebanese banking sector. These results are supported by previous research (G. Sharma & Malviya, 2014) which empirically shows that there is a direct relationship between the dimensions of Internet banking service quality and customer satisfaction with banks. An important dimension of service quality is efficiency and ease of use of that service. According to Lustersik (2004), using a bank's electronic services offers clients a chance to be cost effective in performing transactions, not only by saving money but also by saving time (Ho & Ko, 2008). Our result is consistent with studies done in other markets (Wirtz & Bateson, 1995), which suggested that higher levels of efficiency increase customer satisfaction with E-Banking. Reliability, an important element of service quality (Parasuraman et al., 1988), was shown in this study to have the greatest influence on customer satisfaction with E-Banking. This confirms results found in previous research on this topic, as people need to be able to depend on a steady delivery of the E-Banking service (Kettinger & Lee, 2005; Tan & Teo, 2000). On the other hand, although the dimension of security and privacy had a positive and significant effect on customer satisfaction, thus confirming previous research (Jun, Yang, & Kim, 2004), its impact seems to be lower than the other variables of service quality.

Finally, the variable responsiveness and communication was shown to have a significant and positive influence on customer satisfaction, which is consistent with previous studies (Parasuraman, Zeithaml, & Berry, 2002). Timely responsiveness and effective communication, which can be essential for customers facing issues with E-Banking services, seem to affect customer satisfaction significantly.

### **Suggestion**

1. Banks are providing e-banking services to customers it should create awareness among people and also made literate to the people about use of ebanking products and services.
2. Employees of banks should be given special training for the use of e- banking.
3. Special arrangements should be made by banks to ensure full security of customer funds. Banks use latest technologies with timely updates to secure customers' valuable money from the hand of hackers.
4. Banks are making earnest efforts to popularize the E-banking services and products. Younger generation is commencing to optically the convenience and benefits of e-banking. In years to come, e- banking will not only be customary mode of banking but will be chosen mode of banking.
5. Workshops and seminars should be provided to the people especially in rural areas those who are ATM, computer illiterate and usage of e- banking.

### **CONCLUSION**

This study aimed to examine the impact of E-Banking service quality on customer satisfaction in the Lebanese banking sector. Similar studies had been done for other countries and markets, as was shown in the literature review; however, none to the authors' knowledge had been done in the Lebanese banking sector. The study followed the quantitative approach where a survey was distributed among bank clients in Lebanon and the data were analyzed using SEM with AMOS. Findings suggest that the four hypotheses in this study were supported by the data, and the main

contribution of this study was that reliability, as a service quality variable, was the main predictor of customer satisfaction in this particular market. With E-Banking services still relatively new to Lebanon and, consequently, still below full development and usage, the results of this study will contribute to a better understanding of what and how Lebanese banks may leverage advancement in information technologies to develop services that meet the expectations of Lebanese customers. To further extend this research, it is recommended that ways to increase the reliability of "E-Banking" service be investigated, particularly within the Middle East. Moreover, the meaning of "reliability" may differ across countries even within the region, which warrants a careful investigation of this construct, and others, in multiple cultural contexts.

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