Effect of Electronic Interactive Technologies Usage on Services Marketing Activities Empirical Study on Banking Sector in Jordan

Zakaria A. Azzam , Nidal M. Alramahi Faculty of economic and administrative sciences, Zarka private university, Jordan

Abstract: The importance of new technology in marketing of financial services can't be ignored. Interactive technology helps marketers to inexpensively engage consumers in one- to- one relationships fueled by two way conversation via mouse click on computer. Several organizations especially in services businesses are increasingly strengthening their marketing function by effectively interacting with their customers with the help of sophisticated interactive technologies in an integrated manner. Enough research in the usage or adoption of electronic data interchange (EDI) can be found both in information systems and marketing literature. Therefore; it appears that different interactive technologies have been studied individually by different researchers. This motivates researchers to find out studies related to interactive technologies and their usage or adoption especially in the field of marketing activities in a developing country like Jordan. This paper attempts to understand the effect of the usage of interactive technologies in financial services businesses with the intention to derive implications for the development of interactive technologies to suit its intended users.

Keywords: Interactive Technology, E-Banks, Marketing Activities.

Received April 21, 2009; Accepted March 3, 2010

1. Introduction

Many of the traditional boundaries are being eroded as new technologies offering innovative forms of financial services marketing enables new firms to enter the financial markets. Thus, financial Institutions are being forced to spend heavily on interactive technologies in the new millennium, not just to reduce the costs associated with traditional marketing activities, but also to maintain a competitive edge in an increasingly competitive market, providing financial services at any time, any where, and saving time and money [7, 11, 13, 14,16]. Conversely, limitations reported by [26] due to technology usage such as technology failure, process failure, poor design and customer – driven failure.

An increasingly large number of people in the world operate their bank accounts over the internet, where in the USA internet penetration is approaching 60% of the population, 15% of internet users operate their bank accounts through using internet technology methods [27]. In Sweden 54% of internet users operate their banking activities over the internet [17].

Interactive technology helps marketers to inexpensively engage consumer in one-to-one relationship fuelled by two-way conversation via mouse clicks on a computer, touch-tone buttons on a telephone or surveys completed at a kiosk. Interactive technologies include interactive telephone, internet, digital technologies [14][11]. Therefore, there is a

significant growth in service delivery options based on technology adopted by financial institutions [5, 7, 16]. At present, with the growth of e-banking services, about 53 million consumers, or about 44% of all internet users are operating their bank accounts through using interactive technology methods [32].

New direct operators, employing interactive technology methods in the Financial Institution are appearing almost daily. The effect of computer technology has rendered many advantages, as financial institutions adopt it. Brokerage firms offer on-line securities trading and an access to real time market data and sophisticated investment management tools. Currency and other commodity traders operate around the clock, passing the book from one office to the next in a continuous race around the globe [11].

The present study is an attempt to analyze the effect of electronic interactive technology usage on services marketing activities such as main technological development took place in financial market in terms of the delivery of financial services, self-service technology such as Automated Teller Machines (ATM) and telebanking, prepayment cards, including smart cards, and on-line banking "off-site options", in the form of home banking and internet banking. It also tries to evaluate the effect of Interactive Technology usage on the banks' ability to satisfy customers effectively. [7, 16, 25, 26].

2. Literature Review

- [37] Studied the marketing strategies for technology innovation products. The study considered the turbulent marketing environment and intensive competition; it also tried to systemize the possible market development directions for the companies, which use the technology innovations in production process.
- [25] Studied the key factors that influence the initial self-service technologies, specially focusing on actual behaviours in institutions in which the consumers have a choice among different delivery modes.
- [9] Studied the diffusion of the Internet in manufacturing, retail and services sectors. The study concluded that the financial services firms are among the sectors that witnessed a rapid development of the adoption of e-commerce and internet. On the other hand, the study concluded that the volume of business-to-business e-commerce transactions far exceeds that of business-to-consumer e-commerce transactions.
- [6] Studied the perceived risk and e-banking services. The study investigates the premise that purchasing e-banking services is perceived to be riskier than purchasing traditional banking services. The study revealed that financial risks drives the risk premium while psychological ,physical , and time risk play ancillary roles as risk drivers at certain stages of the consumer buying process. A major implication of this study is that, there is a risk premium for e-banking services and the risk premium permeates all stages of the consumer buying process.
- [32] Studied the online banking usage soar. The study concentrated on the growth of e-banking usage in general, e-commerce sales accounted for only 9.1 percent of all retail activity for the third quarter of 2004, up form 1.7 percent the year before. Although the growth of e-banking services is now at about 53 million consumers, or about 44 percent of all internet users.
- [17] Studied measurement of service quality in Internet Banking: the development of an instrument. The study showed that service quality in e-banking can be measured using twenty one parsimonious measures spread across five dimensions, namely; access, website interface, trust, attention and credibility. The research has found that an increasingly large number of people in the developed world operate their bank over the internet.
- [16] Explored the effect of self-image congruence on satisfaction and brand preference among users and non-users of technology based self services in the retail banking sector. The study concluded that there is a strong relationship between self-image and satisfaction and between self-image congruence and brand preference among customers of retail banking in general.

- [30] Studied marketing online banking services. They concluded that the next wave of adopters is very different from those who adopted e-banking early. The study concluded that, the next wave of possible adopters are less aware of the potential benefits, but they are very concerned about cost and risks involved and do not necessarily feel a strong need for the service. The study concluded that, banks are not taking the necessary marketing step to win over indifferent consumers.
- [21] Studied the relationship quality, online banking and information technology gap. The study concluded that the compatibility of channels with customers needs has an impact on trust and gaining the trust of customers is crucial in getting customers committed to online banking. This is important for the marketing of Financial Services by the banks to notes.
- [11] Studied the motivations to use Interactive Technologies in marketing of services sector. They conducted the study on banking sector, insurance sector, hotel industry, express industry and travel industry. The study revealed that the banking sector globally is probably a sector most influenced by the development in interactive technologies. The study concluded that there are certain motivations a bank adopts to use interactive technology which are, selling core products, providing information about the organization, projecting a favourable organizational image, accessing inaccessible customer and providing opportunity for feedback.
- [15] Studied the marketing challenges in E-banking. The study has examined some of the marketing challenges involved in e-banking through comparing two case studies exemplifying contrasting approaches. The study reveals that e-bank demonstrates the way that integrated and responsive customer management can be implemented effectively, with the luxury of starting with a blank sheet of paper and the opportunity to recruit new staff and outsourcers. The study took key structural, management cultural and process differences into consideration.
- [7] Studied the moderating effects of consumer traits and situational factors on the relationships within a care attitudinal model for technology based self service. Relevant consumer traits for technology based services are examined and include inherent novelty seeking, self efficiency with respect to technology.
- [3] Studied the benefits of self-service technologies. The study investigates the main expectations of consumers using e-banking. The study reveals that internet technologies are essentially self service technologies that offer the benefits of round the clock convenience, availability, time and money saving, and a reduction in the anxiety caused by judgmental service representatives. It is reasonable to assume that these same factors might also affect the use of e-banking services. Previous consumer surveys support the premise that e-banking offers convenience

and time saving [28]; however, security and privacy risks are major impediments consumers are facing while using e-banking [2].

[4] Studied the adoption of internet financial services. They tried to provide way through which customers adopt new technologically based banking services. The study concluded that the adoption of new technologically based banking services from customer point of view vary greatly.

[22] Studied an optimization model for the market-mix problem in the banking industry. Their study focuses on a marketing problem of a large bank which seeks new ways to increase the efficiency of advertising due to increasing competition as well as because of the diversification and specialization of services banks offer. The study suggested an optimization model able to target both present and future markets presenting the best opportunities for profitability. The model takes into account market competition and operational constraints. The problem of market – mix is a well-known problem in the literature but it is mostly divided into three sub problems [19], these are the market segmentation, the market targeting and the product positioning.

[10] Studied information technology utilization behaviours. They proposed and tested an integrated information technology utilization model, which is an extension of TMA with the inclusion of task – technology fit model

[31] Studied TAM in the adoption of an information technology innovation namely, e-mail among employees of three different airlines across different countries Japan, Switzerland, and United States.

[1] Studied developing typologies of consumer motives for use of technologically based banking services. The study concentrated on the main motives which attract consumers to use technologically based banking services. The study indicates that consumers will not adopt a new financial product unless it reduces their costs and does not require them to change their behaviours when using it.

[8] Studied the developed technology accepted model (TMA) to explain the usage of information technology (IT). TAM addresses IT adoption implementation, and diffusion in terms of perceived usefulness and perceived ease of use. Perceived usefulness can be defined as the prospective users subjective belief that using a specific application system will increase his or her job performance within an organization context.

2.1. Services and Interactive Technologies:

In modern fast paced market, most transactions are implemented by new technologies, which forced financial services institutions to use technology in services delivery options. [5, 7,16, 26]. As a result of these developments a growing number of clients interact with technologies to get services out comes

rather than interacting with a service firm employee. [3, 16, 25, 26]. There are many types of such interactions in the financial services institutions such as Automated Teller Machine (ATMs), Automated telephone banking, on line banking & Internet banking. The purpose of employing interactive technologies in financial services institutions is to facilitate employees' job, reduce transaction cost and encourage clients to create services outcomes on their own [7, 11, 13, 14, 16, 24, 25].

2.2. Types of Interactive Technologies

Financial institutions may have to change structures, culture and processes to build and maintain customer relationship using the new technology. There are several tools of interactive technologies used by financial services institutions which are as follows [3, 14, 16, 25, and 26].

- Automatic Teller Machine (ATM): It was first introduced in the UK more than 30 years ago early machines were largely cash- dispensing terminals which were originally put in place to reduce queues in branches at peak times, cut down the amount of paper work and cash handling and free up staff time in branches. Customers are taking the advantage of the 24-hour access to cash provided by the terminals. [9, 24].
- Electronic Funds Transfer at Point Of Sale (EFTPOS): There are several forces driving the introduction of electronic funds transfer at point of sale (EFTPOS). Consumers were demanding easier method of payment, retailers wanted to reduce the amount of cash in the payment system, financial services insinuations wanted to reduce the amount of cheque-based payments and the technology suppliers obviously wanted an outlet for their products. [11, 14].
- Tele banking: People who enjoy conducting business over the telephone and prefer the telephone as a method of buying goods have dubbed telephone. According to the Henley Centre for forecasting, this includes half the population. The cost advantages of telephone banking are very attractive when compared with the cost associated with a branch network. The cost of servicing retail bank customers by telephone can be as little as percent of the cost of similar transactions via a branch teller [9, 11].

Furthermore, for telephone services operated from call centres, there is additional cost saving in terms of premises to be considered. Many centres located in out-of-town or edge-of-town warehouse –style office accommodation which is plentiful and considerably cheaper than high street locations. Telebanking systems can be operated via one of three main methods which differ in terms of the amount of technology involved [9, 14].

- a. Person-to-person telephone operations: Person-toperson telephone operations were the first to be established, in which the customer has direct contact to the personnel at the financial institution to process transactions and deal with enquiries. In technological terms it is the least sophisticated of telephone delivery channels since it is merely a development of the ad hoc service which any customer enjoys from their financial institution such service is accessed 24 hours a day [14].
- b.Tone/Speech-based: Tone or speech-based telephone services are based on communication via tone generation and can be operated by one of two main telephone -based method. The first of these operates via a push-button telephone or a tone pad and pulse/click phone. The second method is automated voice response. [14, 35].
- c. Screen-based: In screen-based systems communication occurs between the customer's computer television or video text system and the financial institutions computer system. [35].
- Smart Cards: Smart cards are a relatively recent innovation which offers variety of possible applications including prepayment functions, advanced identification of cardholders, road-pricing schemes and retailers loyalty cards, as well as electronic cash. The card uses a microchip instead of the magnetic stripe which is currently used in debit and credit cards and many other plastic cards on the market. There are several advantages which the microchip offers over the magnetic stripe [14].
- It enables increased amount of data to be stored on the card. The microchip allows the data to be accessed and processed remotely as well as on line. The microchip is more secure than the magnetic stripe which reduces fraud in payment system.
- On-line banking: On-line banking systems have wider reaching implications because they do not rely on ATM's or EFTPOS and they are not dependent on co-operative schemes with other banks. They do, however, require the intermediation of communication companies to provide the interactive communication networks.
 - On-line or PC banking from a personal computer at home or place of work provides the customer easy way to perform common banking transactions that would normally require a visit to the branch or perhaps telephone call to process. Thus, it creates convenience allowing the sometimes onerous task of financial management to be fitted around individual's busy life style. There are two main approaches to on-line banking which can be distinguished [9, 14, 30, 32].
 - a. Home banking: Such service requires the user to dial directly to the financial service provider system. Basic facilities offered includes; the ability to check account balances, view

- transactions records and account history, pay bills, apply for other services communicate with the financial institution, and transfer money instantly between accounts. Customers can also download information on to their own PC which enable them to manage their own finances without needing to stay on-line. [13, 14, 35]
- b.Internet Banking: Where access to the financial institution is made across the internet using a web browser, the internet offers an alternative and more portable means of operating on- line banks [11, 15, 17 21, 26].
- Interactive TV: Interaction TV offers the integration of television cable satellite and internet services. The concept has been around for more than 25 years, yet its adoption could herald a whole new world in retailing and banking. [9, 14].

3. Research Hypotheses

The study attempts to test the following hypotheses:

H₀: Jordan banks don't have interactive technology. This hypothesis can be divided into the following null hypotheses:

 H_{0a} There is no significant relationship between interactive technology and banking Core Services.

 H_{0b} There is no significant relationship between interactive technology and Processes of banking Services.

 H_{0c} There is no significant relationship between interactive technology and Promotion of banking Services.

 H_{0d} There is no significant relationship between interactive technology and Price of banking Services.

 H_{0e} There is no significant relationship between interactive technology and Distribution of banking Services.

 H_{0f} There is no significant relationship between interactive technology and People staff working in banking industry.

4. Research model

A wide range of interactive technologies options are available, yet most financial institutions use only a few of them [1].

This study investigates the main effect of interactive technologies adopted by financial institution on the services marketing activities. Several studies have investigated issues involving interactive technologies mainly focusing on customer satisfaction [7, 16, 26].

Researchers developed a model (see Figure 1). On the left side of the model, the researchers show the interactive technologies as independent variable which includes all technologies adopted by financial services institution [7, 14, 16, 25, 26], and their effect on the marketing activities of a financial instructions which are on the right side of the model as dependent variables of the study i.e. core services, processes, promotion, price, distribution, people [11, 14, 15, 19, 23, 24,].

Based on the literature reviewed, the researchers suppose the following model:

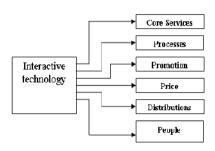


Figure 1. Research model.

5. Methodology

The population of the study consists of all Jordanian Domestic Banks (Local and Foreign). The number of domestic banks in Jordan is twenty tow banks. The researchers covered only the banks headquarters where the targeted respondents were expected to exist. The data is collected by using a self-administered questionnaire that measures the existence of interactive technology and measures its impact on marketing activities represented by the marketing mix elements of the financial services institutions namely core services, process, promotion, price, distribution and people staff.. The questionnaire was designed after a preliminary observation on the practice and reviewing the available literature. The researchers circulated the research questionnaire among the parties that had the ability and knowledge to answer it. Therefore, the researchers distributed the questionnaire to the domestic banks departments' managers, which was later on collected.

The questionnaire is drafted in English and divided into three main parts. The first part of the questionnaire contained questions related to demographic variable of the respondents regarding their years of experience in their current position and experience in the observed bank. The second part of questionnaire deals with existence and nonexistence of interactive technology tools applied by respondent banks. The scale of such question is Exist/ Not Exist. The third part of the questionnaire containing Likert-scaled items scoring form 1 (strongly disagree) to 5 (strongly agree) to measure all the variables used in the study related to effect of interactive technologies usage on services marketing activities of a financial firm. A common or traditional method of measuring the effect of interactive technology usage on services marketing involves the use of semantic differential scales or Likert type scales.

The questionnaire of the present study was designed by the researchers, taking into consideration the following dimensions according to their functions and goals were considered:-

Marketing mix of financial insinuations:

- Core Services (3 Questions).
- Processes: (5 Questions).
- Promotion (7 Questions).
- Price: (5 Questions).
- Distributions (5Questions).
- People (6 Questions).
- Interactive technology (8 Questions).

Sixty five questionnaires were distributed to the selected respondents; fifty two were received in a usable format, indicating a response rate of 80%. One way to assess the potential for non-response bias is to compare data from late respondents to data from on time respondents based. In the current study three responses were received following a reminder. Those late responses were not significantly different from responses in any of the analysis reported in the following results section.

To investigate study instrument validity, the researchers consulted ten experts (Professionals and Academics). The experts were asked to make sure that the research questionnaire does not miss any element that might affect the study results or create bias in the questions. The researchers used Cronbach's Alpha to check the questionnaire for all of its components. reliability analysis Furthermore. allowed researchers to study the measurement scales and the items that make them up. In the current study, the researchers did not use some of the central tendency measurements such as the mean, because it is only valid for the nominal scale. Consequently, the researchers did not calculate the mean for respondents' answers that were measured by using nominal scale (Exist/ Not exist). Furthermore, variance measure was not used because it was calculated by using squared distances from the mean since the researchers utilized the nominal scale.

For the hypotheses that measures the existence of interactive technology in the Jordanian Banks, the researchers used Z-test for proportion that pertains to population proportion P Maturity Model attributes implementation percentage by calculating the sample proportion Ps, then the values of this statistic compared to the hypothesized value of the parameter P (Implantation Standards) so that the decision can be made about the hypothesis.

6. Results

The majority of the respondents (85 %) as shown in Table (1) reported that they had three or more years of experience in their current position, while only (15%)

of the respondents had less than three years of experience in their current position.

Table 1. Frequency distribution of the respondents experience in their current position.

Experience	Frequency	Percent
1-3 Years	8	15 %
3-7 Years	14	28 %
7-11 Years	20	38 %
11-15 Years	10	19 %
Total	52	100 %

Almost (81%) of the respondents declared that they had three or more years of experience in the same bank, while only (19%) reported that they had less than four years of experience in the observed bank.

Table 2. Frequency distribution of the respondents experience in the observed bank

Experience	Frequency	Percent
1-3 Years	10	19%
3-7 Years	23	45%
7-11 Years	19	36%
Total	52	100%

It can be concluded from the above tables that the individuals who answered the questionnaire had the minimum required level of knowledge, which may increase the credibility and reliability of their answers.

6.1. Hypothesis test

6.1.1. Jordan banks don't have interactive technology.

Upon the results of Z test with significant level (0.05), the null hypothesis should be rejected, which states that there is application of interactive technology in Jordan banks because Z value =1.162476, this means that it is within acceptance field (1.96- <Z<1.96), moreover p=0.245, which is more than the required significant level 0.05.

6.1.2. There is no significant relationship between interactive technology and banking core Services.

Through the results of simple regression shown on tables (3, 4, and 5) we find the following results:

Table 3. Model summary.

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.832	.693	.686	.29255

Table 4. ANOVA.

	Model	Sum of Squares	df	Mean Square	F	Sig.
1	Regression	9.638	1	9.638	112.609	.000
	Residual	4.279	50	.086		
	Total	13.917	51			

Table 5. Coefficients.

Model		0	lardized icients	Standardized Coefficients		Ci a
		В	Std. Error	Beta	·	Sig.
1	(Constant)	-2.215	.543		-4.080	.000
	Interactive technology	4.687	.442	.832	10.612	.000

The analysis of the linear regression shows correlation between interactive technology frequency and Core Services (R=83.2%), In addition, the results show that 69.3% of the variance in Core Services frequency is explained by Interactive technology. On the other hand, F value is (112.609) and this value is significant at p equal or less than 0.05. According to the previous findings, the researchers reject the null hypotheses.

6.1.3. There is no significant relationship between interactive technology and processes of banking Services.

Through the results of simple regression shown on tables (6, 7, and 8) we find the following results:

Table 6. Model summary.

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.279	.078	.059	.54278

Table 7. ANOVA.

	Model	Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1.244	1	1.244	4.223	.045
	Residual	14.731	50	.295		
	Total	15.975	51			

Table 8. Coefficients.

Model		Unstandardized Coefficients		Standardized Coefficients		Ci a
		В	Std. Error	Beta	ι	Sig.
1	(Constant)	.858	1.007		.851	.399
	Interactive technology	1.684	.819	.279	2.055	.045

The analysis of the linear regression shows correlation between interactive technology frequency and processes (R=27.9%), in addition, the results show that 7.8% of the variance in processes frequency is explained by Interactive technology. On the other hand, F value is (4.223) and this value is significant at p equal or less than 0.05. According to the previous findings, the researchers reject the null hypotheses.

6.1.4. There is no significant relationship between interactive technology and promotion of banking Services.

Through the results of simple regression shown on tables (9, 10, and 11) we find the following results:

Table 9, Models Summary.

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.814	.663	.656	.39552

Table 10. ANOVA.

	Model	Sum of Squares	df	Mean Square	F	Sig.
1	Regression	15.399	1	15.399	98.432	.000
	Residual	7.822	50	.156		
	Total	23.220	51			

Table 11. Coefficients.

	Model	Unstanda Coeffic		Standardized Coefficients		Sig.
	Wodel	В	Std. Error	Beta	ι	Sig.
	(Constant)	-3.517	.734		-4.791	.000
1	Interactive technology	5.925	.597	.814	9.921	.000

The analysis of the linear regression shows correlation between interactive technology frequency and promotion (R=81.4%), in addition, the results show that 66.3% of the variance in promotion frequency is explained by Interactive technology. On the other hand, F value is (98.432) and this value is significant at p equal or less than 0.05. According to the previous findings, the researchers reject the null hypotheses.

6.1.5. There is no significant relationship between interactive technology and price of banking Services.

Through the results of simple regression shown on tables (12, 13, and 14) we find the following results:

Table 12. Model summary.

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.780	.609	.601	.36597

Table 13. ANOVA.

	Model	Sum of Squares	df	Mean Square	F	Sig.
1	Regression	10.424	1	10.424	77.831	.000
	Residual	6.697	50	.134		
	Total	17.121	51			

Table 14. Coefficients.

Model		Unstandardized Coefficients	Standardized Coefficients		4	Sia	
		В	Std. Error	Beta	ι	Sig.	
1	(Constant)	-2.315	.679		-3.409	.001	
	Interactive technology	4.875	.553	.780	8.822	.000	

The analysis of the linear regression shows correlation between interactive technology frequency

and price (R=78%), in addition, the results show that 60.9% of the variance in price frequency is explained by Interactive technology. On the other hand, F value is (77.831) and this value is significant at p equal or less than 0.05. According to the previous findings, the researchers reject the null hypotheses.

6.1.6. There is no significant relationship between interactive technology and distributions of banking Services.

Through the results of simple regression shown on tables (15, 16, and 17) we find the following results:

Table 15. Model Summary.

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.853a	.728	.723	.37995

Table 16. ANOVA.

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	19.342	1	19.342	133.983	.000
	Residual	7.218	50	.144		
	Total	26.560	51			

Table 17. Coefficients.

Model		Unstanda Coeffic		Standardized Coefficients	t	Sia
		В	Std. Error	Beta	Sig.	
	(Constant)	-4.275	.705		-6.062	.000
1	Interactive technology	6.640	.574	.853	11.575	.000

The analysis of the linear regression shows correlation between interactive technology frequency and distributions (R=85.3%), In addition, the results show that 72.8% of the variance in distributions frequency is explained by interactive technology. On the other hand, F value is (133.983) and this value is significant at p equal or less than 0.05. According to the previous findings, the researchers reject the null hypotheses.

6.1.7. There is no significant relationship between interactive technology and people staff working in banking industry.

Through the results of simple regression shown on tables (18, 19, and 20) we find the following results:

Table 18. Model summary.

	Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
ĺ	1	.938	.879	.877	.16187

Table 19. ANOVA.

	Model	Sum of Squares	df	Mean Square	F	Sig.
1	Regression	9.540	1	9.540	364.081	.000
	Residual	1.310	50	.026		
	Total	10.850	51			

Table 20. Coefficients.

Model			dardized ficients	Standardized Coefficients	t	Sig.
		В	Std. Error	Beta	٠	Dig.
1	(Constant)	-1.528	.300		-5.086	.000
	Interactive technology	4.663	.244	.938	19.081	.000

The analysis of the linear regression shows correlation between interactive technology frequency and people (R=93.8%), in addition, the results show that 87.9 % of the variance in people frequency is explained by interactive technology. On the other hand, F value is (364.081) and this value is significant at p equal or less than 0.05. According to the previous findings, the researchers reject the null hypotheses.

7. Conclusions, Recommendations & Future Research Directions.

Based on above analysis, the research concludes the following results:

It can be noticed that banks in Jordan apply interactive technology, there is significant relationship between interactive technology and marketing mix. Analysis indicated that there is a strong significant relationship between application of interactive technology and People staff working in Jordan banks. Analysis also indicated that there is a weak relationship between application of interactive technology and processes implemented in Jordan banks.

Furthermore it has been found that there is a close relationship between the application of interactive technology and marketing mix components in Jordan banks. The researchers, based on the above conclusion, recommended that Jordan Banks should provide effective training programs to their employees in order to enhance their ability to deal with interactive technology tools adopted by them. On the other hand, Jordan Banks should adopt all new interactive technology methods which have positive impact on the overall marketing activities as a result of which customers will be highly satisfied and more competitive advantage will be attained by Jordan Banks.

Technology has become an integral part of the market place. Customers are increasingly given the options or are being asked to provide services for themselves through the use of interactive technologies methods. Therefore it is important for providers of interactive technologies to understand its effect on marketing activities through which competitive position of the firm can be enhanced. This motivate researchers to conduct additional research to examine the implication that arises from the inherent characteristics of interactive technology and its effect on firms productivity. On the other hand, difficulties associated with service recovery should be explored. Greater insight into these and other issues will enable firms to make the most effective use of their interactive technologies methods. Effective management of interactive technologies options can be an excellent means of creating a competitive advantage. This research represents a step for better understanding the over all effect of interactive technologies usage on service marketing activities. Currently interactive technologies options are wide in services firms, yet additional development could meld the benefits of technologically based services. When such delivery options are better understood, effective management of these options may increase profitability and success of the services firms in the increasingly competitive market place.

References

- [1] Barczak, G., Ellen, P.S. and Pilling, B.K. "Developing typologies of consumer motives for use of technologically based banking services", *Journal of Business Research*, Vol. 38, pp. 131-139, 1997.
- [2] Bhimani, A. "Securing the commercial internet", *Communications of the ACM*, Vol. 39, No.6,pp. 29-35, 1996.
- [3] Bitner, M.J" Self-service technologies: What do customers expect? ", *Marketing Management*, Vol. 10, No. 1, pp.10-21, 2001.
- [4] Black, N.J., Locket, A., Winklhofer, H. and Ennew, C., "The adoption of Internet financial services: a qualitative study", *International Journal of Retail and Distribution Management*, 29,8,pp. 390-398, 2001.
- [5] Bobbitt L.M, and Dabholkar P.A., "Integrating Attitudinal Theories to understand and predict use of technology based self- service: The Internet as an illustration", *Journal of Service Industry Management*, Vol. 12. No. 5. pp 423-451, 2001.
- [6] Change,M.K.& Cheung,W., "Determinants of the intention to use Internet/www at work: a confirmatory study", *Information & Management*, Vol. 39, pp. 1-14,2001.
- [7] Dabholkar. P. A- and Bagozzi; R.P, "An Attitudinal model of Technology- based self-Service: Moderating effects of customer traits and situational factors", *Academy of Marketing Science Journal*, Vol. 30. No. 3. pp. 184-202, 2002.

- [8] Davis, F.D., "Perceived usefulness, perceived ease of use, and user acceptance of information technology", IS Quarterly, Vol.13, No.3, pp.319-339, 1989.
- [9] Dinlersoz, M.Emin. and Murillo, H. Ruben, "The Diffusion of Electronic Business in the United States", Federal Reserve Bank of St. Review. January/Febraary 87 (1) pp 11-34, 2005.
- [10] Dishaw,M.T.& Strong, D.M., "Extending the technology acceptance model with task-technology fit constructs", *Information & Management*, Vol.36,pp.9-21, 1999.
- [11] Gaur, S. Sanjaya and Abdul Waheed, K. "Motivations to Use Interactive Technologies in Marketing: A case In Indian Service Business", *Journal of Services Research*, Volume 3, No.1 (Aprial-Sept) pp 45-60, 2003.
- [12] George, R.J. "In-home electronic shopping: Disappointing past, uncertain facture", *Journal of Consumer Marketing*, Vol. 4, No.4, pp.47-56, 1987.
- [13] Gunningham, F.Lawrence, Gerlach, James., Harper, D.Michael, "Perceived Risk and E-banking Services: An Analysis form the Perspective of The Consumer", *Journal of Financial Services Marketing*, Vol.10, No.2, pp 165-178, 2005.
- [14] Harrision, Tina. *Financial Services Marketing*, Prentice Hall, First Edition, UK, 2000.
- [15] Hughes, Tim. "Marketing Challenges in E-Banking: Standalone or Integrated"? Journal of Marketing Management, 19, pp 1067-1085, 2003.
- [16] Jamal Ahmad, Retail Banking and Customer Behavior. "A Study of Self Concept, Satisfaction and Technology Usage". International Review of Retail Distribution and Consumer Research. Vol. 14, No. 3 July pp. 357-397, 2004.
- [17] Jayawardhena, Chanaka. "Measurement of Service Quality in Internet Banking: The Development of an Instrument", *Journal of Marketing Management*, Vol. 20, No.1, pp 185-207, 2004.
- [18] Jeffery f.Rayport & Bernardj, Jaworski, "Introduction to E-Commerce" Second Edition, Mc Graw Hill, Singapore, 2003.
- [19] Kotler, P. *Marketing Management*, 11th edn, Prentice Hall, Upper Saddle River, New Jersey, 2003.
- [20] Kotler, Philip, *Marketing Management, Analysis*, Planning, Implementation and Control, Prentice Hall Inc. New Jersey, 2001.
- [21] Lang, B. and Colgate, M. "Relationship quality, on-line banking and the information technology gap", *The International Journal of Bank Marketing*, 21,1,pp.29-37, 2003.
- [22] Larochelle, Jean, Francois & Sanso Brunilde (2000), "An Optimization Model for The Marketing-Mix Problem In The Banking

- Industuy", Journal of Information Systems and Operational Research, Vol. 38. No.4, Nov. pp 390-406.
- [23] Lovelock, Christopher & Writs. Jocken, Services Marketing, People, Technology & Strategy, 5th Edition, Person Educational International, Prentice Hill, USA, 2004.
- [24] Mc Goldrick, J. Peter. & Green Land, J. Steven, *Etailing of financial Services*. Mc Graw Hill Books company, 2end Edition, UK, 1994.
- [25] Meuter, L.M.; Ostrom, A.L.; Roundtree, R. I, & Bitner M.J; "Self-Service Technologies: Understanding Customer Satisfaction With Technology-Based Services Encounters", *Journal of Marketing*, Vol. 64. July, pp 50-64, 2000.
- [26] Meuter. L. Matthew; Bitner. J. Mary; Ostrom L. Amy and Brown W. Stephen. (2005), "choosing among alternative service delivery modes. An investigation of customer trial of self-service technologies"; *Journal of marketing*, Vo.69. April, pp.61-83.
- [27] NUA, "Us Online Banking Population 1998-2002," available at.
- [28] http://www.nua.com/surveys/analysis/graphs_Ch arts/Comparsions/on line_banking_population.html, 2002.
- [29] Pew Internet & American Life Project, "Post-Election 2004 and November 2004 Tracking Surveys", http://www.pcwinternct.org/trends, 2004.
- [30] Sarel, K. and Marmorstein, H "Marketing online banking to the indifferent consumer: A longitudinal analysis of banks actions", *Journal of Financial Services Marketing*, Vol. 8, No. 3,pp. 231-243, 2004.
- [31] Sarel,K. and Marmorstein, H. "Marketing online banking services: The voice of the customer", *Journal of Financial Services Marketing*, Vol.8,No.2,pp. 106-118, 2003.
- [32] Sturaub, D.Keil, M.& Brenner,W, "Testing the technology acceptance model across cultures: a three country study", *Information& Management*, Vol, No.1, pp.1-11, 1997.
- [33] Sullivan,B. "Click! Online banking usage soars", www.msnbc.msn.com/id/6936297,9th February, 2005.
- [34] Teo,H.H., Tan, B.C.Y., Wei, K.K. & Woo, L.Y., "Reaping EDI benefits through a proactive approach", Information & Management, pp. 185-95, 1995.
- [35] Teo,T.S.H., Lim, V.K.G. & Lai, R.Y.C. "Intrinsic and extrinsic motivation in internet usage", *Omega*, Vol. 27, pp. 25-37, 1999.
- [36] Turban EFraim & King David, *Introduction to E-Commerce*, Prentice Hall, Upper Saddle River, New Jeresy, 2003.
- [37] Vijayasrathy, L.R. & Tyler, M.L." Adoption factors and electronic data interchange use: a

- survey of retail companies", *International Journal of Retail & Distribution Management*, Vol. 25, No. 9, pp. 286-292, 1997.
- [38] Viktoriya. Zhurylo and Nadiia, Lazvinska, "Marketing Strategies for Technology Innovation Products", *Journal of economic and management*, 12, pp.499-506, 2007.



Zakaria A. Azzam Assistant Professor of Marketing, Vice Dean Faculty of economic and administrative sciences, Head of Marketing Dept. Zarka private university. Ph.D. marketing Nagpur university – India. M. com Nagpur university – India. B. com. Nagpur

university _ India.



Alramhi, Nidal M. Assistant Accounting Professor of Information system, Head of Accounting & AIS Dept. Head of Development & Quality Assurance Unit, Zarka private university. Phd Accounting/ Accounting Information system, Arab Academy For Banking and Financial Sciences-Jordan, Master degree in

Accounting and Financial, Arab Academy For Banking and Financial Sciences-Jordan, Bachelor in business sciences, Yarmok university-Jordan.