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Perceived Benefits and Challenges of Electronic Banking Adoption in Ethiopian Private Commercial Banks

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Abstract
The main objective of this study is to identify Perceived benefits and challenges of e- banking adoption on Ethiopian private commercial banks. Mixed research design was employed and primary data was collected through questionnaires from employees and analyzed using quantitative (statistical) and qualitative methods. The study reveals that e-banking service provides benefit for both customers and banks in improving their public image and retain customers for long. Despite the benefit of e-banking service and investment on adopting; the system is not well strengthen in providing services due to several challenges. From these, low level of infrastructure, lack of legal frame works, security risk which lessen confidence of customer to use those technologies, lack of trust on the use of technological innovation and limited top management support are the major challenges of Ethiopian private commercial banks in respect to technology adoption. This study suggested that the government should issue laws that govern e-banking operation, security technologies should be strengthened. Awareness about e-banking should be created using different approaches. Moreover e- banking technologies should be given in a simple and easy to use way.
Keywords: E-Banking, technological adoption, Private Banks in Ethiopia

1.1 Introduction

Currently, there is rising competitiveness in the financial service market which resulted in force to expand and exploit different delivery mechanisms to stay and sustain in the market. A strong banking sector is vital in every nation and can have an important consequence in supporting economic development through efficient financial services. The role of the banking sector is going with the globalization movement at the practical level. This change will comprise moving from conventional service to electronic service delivery of banking services. E-Banking scheme has paved the way of opportunity to the existing banks and financial sector. This technology allows business process re-engineering, serving borderless market, to attain zero latency leading to development in customer service levels and better risk administration because of real-time settlement. Since its evolution in 90th decades, it is having unprecedented growth. The growth rate is higher in developed nations and lower in least developed nations (Chang, 2003; Gallup, 2008).

Most banks in developing parts of the world are now offering e-banking services with various levels of development (Garau, 2002). However, comparative to the development of e-commerce, the adoption of electronic banking (e-banking) system is not well developed in Ethiopia and still cash is the most dominant medium of exchange (Gardachew, 2010). Therefore, the aim of this study is to assess the challenge and perceived benefits of electronic banking adoption in private commercial banks of Ethiopia.

1.2 Statement of the Problem

The role of information technology to the bank sectors are getting bigger. As a result, banks are adopting technologies that help them deliver banking services by the most cost effective channels and one of such channel is adoption of e-banking or internet banking (Booz, and Hamilton, 1997)

E-banking services are at an infant stage in Ethiopia; even though expansion of e- banking throughout the developed and the developing world is rapid, Ethiopia's financial sector remain behind in expanding the use of the service. Certainly, the banking industry is not well developed with a growing number of international trades; increase the demand of the customer and international relations. The today's banking system has problems of offering efficient and dependable services (Garedachew, 2010).

Therefore, this study is aimed at identifying the perceived benefits and challenges of e-banking adoption in Ethiopian private commercial banks. Based on the research problem discussed above the following basic research questions was addressed.

1. What are the benefits of adopting e-banking service from the viewpoint of Ethiopian private Commercial banks?
2. What are the challenges of adopting e-Banking in Ethiopian Private Commercial Banks?
3. What are the driving forces towards the adoption of e-banking service in Ethiopian private commercial banks?

1.3 Research Objective

The main objective of the study is to identify the perceived benefits and challenges of e-banking adoption in

Ethiopian private commercial banks. More specifically, this study is designed to identify perceived benefits of adopting e-banking in Ethiopian private Commercial Banks, to assess the main driving forces to adopt e-banking in Ethiopian private Commercial Banks and to explain the challenges of adopting e-banking in Ethiopian private Commercial Banks.

1.4 Significance of the study

The output of the research will have importance t to policy makers/national bank of Ethiopia in incorporate in relation to legal framework; to financial institutions by providing appropriate input to expand and improve e-banking technology and to other researchers by giving insight on perceived benefits and challenges for the adoption of this service delivery channel.

2. Review of Related Literature Review: Empirical literature

Gardachew (2010) conducted research on the opportunities and challenges of E-banking in Ethiopia and found that lack of suitable legal and regulatory frame works for E-commerce and E- payments, political instability in neighboring countries, high rates of illiteracy and absence of financial networks that links different banks are the major challenges. The research output showed Opportunities offered by ICT through e-learning programs and Commitment of the governments on development of ICT infrastructures is considered as drivers of using E-commerce and E-payment systems.

Wondwossen and Tsegai (2005) found that the main obstacles to the development of E-payments are lack of customers trust in the initiatives, lack of payment laws and controlling system especially for E-payment, lack of skilled manpower and frequent power disruption.

According to Aladwani(2001) the major challenges of E- banking in Kuwait Banks lack of Internet specialists and volatilities in technology are critical issues relevant to on-line banking development. The study also indicates that general and IT managers' technical problems are the major challenges for the growth of e-banking. Khorshid and Ghaneh, (2009) identified that goodwill of bank, regulations and laws are the main challenges for the development of e-banking.

Rasoulian and Safari (2011) found that the importance of Internet use, frameworks and encouraging policies to impress beneficiaries to use electronic banking, cultural elements as the most important challenge followed by financial elements (the cost of the Internet and commissions) and management obstacles.

Khalfan., *et al (*2006), Zhao *et al*. (2010), Polatoglu and Ekin (2001), Vaithianathan, (2010), Angelakopoulos and Mihiotis (2011) , Chitura (2008), M. M. Rahman (2008), Gerrard *et al.* (2006), Sathye (1999),and Ghazi and Khalid (2012) found that security and data confidentiality issues, trust, quality of Internet, cost of implementation, lack of technological infrastructure and awareness, lack of skilled human resources, lack of government initiatives, low Internet usage, non-familiarity with technology and lack of top management support have been a major barrier.

Similarly Mwangi (2007) found that Internet banking has playing great role in saving costs and has encourage the competition severely, making the banking industry highly demanded by and critical for customers, but making it not to attract new and potential customers.

Polatoglu and Ekin (2001) found that e-banking decreases operational costs and it increases customers' satisfaction and retention and increase firms overall profile. Simpson (2002) andAllen et al., (2002) stated that Internet has changed the direction of competition in the banking sectors and it brings additional risk components.

Hernando and Nieto (2005) investigated the performance of commercial banks in Spain between 1994 and 2002 and found that higher profitability for multichannel banks through boosting operational income, increased brokerage fees. The prior factors include skills on the part of customers in using Internet and other technologies, attitudes towards technologies, Internet penetration level, privacy and security issues. The other challenges are banking culture, e-banking culture, trust in banking institutions.

Sathye (2005) investigated the impact of the introduction of transactional Internet banking on performance and risks of major credit unions in Australia. According to Sullivan (2000), the Internet banking has no significant impact on the performance of commercial banks. Thus, Internet banking is not proved as a performance improving mechanism of credit unions. It neither reduced nor enhanced risk profile.

DeYoung et al. (2006) observed the change in financial performance of Internet community banks in U.S. during 1999-2001. The results found that Internet adoption increased commercial banks' financial soundness, particularly by increasing revenues from through deposit mobilization and credit creation. E-banking adoption also associated with movements of deposits from checking accounts to money market deposit items; expand use of deposits and higher average wage rates for bank employees. The findings suggested that Internet adoption was associated with an economically and statistically significant improvement in bank profitability.

Siam (2006) examined the effect of electronic banking in bank profitability in Jordan for the period of 1999-2004. The results found that e-banking has negative effect in short run and has a positive effect on commercial banks' profitability in Jordan and found again that majority of the banks are providing services through websites and

using e-banking as satisfying and fulfilling consumers' desires. The study also suggests that there should be well-articulated strategies to attain success and profits in the long run.

CeylanOnay et al. (2008) examined that e-banking has a positive impact on financial performance of Turkish commercial banks and found that Internet has changed the dimensions of competition in the banking sector. It has also offered that opportunities for emerging countries to build up their financial intermediation facilities. With the growth of secured transaction technologies, several commercial banks are using Internet banking as a transaction and information offering mechanism. Hence, Internet banking users can have common banking services such as issuing checks, bill payments, fund transfer, and checking account balances on-line using a computer (Acharya and Kagan, 2004).

3. Research Methodology

3.1 Research Design

According to Kothari (2008), research design is the conceptual structure within which research is conducted; it contains the mechanisms of data collection, variable measurement and analysis. For this study, mixed research approach was appropriately used.

3.2 Target Population and sample size

There are sixteen (16) private and one (1) government commercial banks in Ethiopia. Currently ten (10) private commercial banks (Abay Bank, Bank of Abysinia, Addis International bank, Awash international Bank, Commercial bank of Ethiopia (CBE), Dashen Bank, NIB International Bank, Oromia Cooperative Bank, Oromia International Bank, United bank, Wegagen Bank, and Zemen Bank) are adopting E-banking. And this study was conducted on private commercial banks by excluding the public owned bank purposely. From the above 10 insurance companies 137 employees were included as a sample for this study.

3.3 Source and method of Data collection

The main sources of data for this study are primary in nature and were collected through a likert scale questionnaire from the employees of private commercial banks in Ethiopia. After data were collected, it was coded and analyzed using descriptive statistics with the help of SPSS 16.0.

4. Result and Discussion

4.1 Demographic characteristics` of the respondents

Table 4.1 Demographic characteristics of respondents

Variable	Classification of Variable	Frequency	Percent (%)
Gender	Male	89	65
	Female	48	35
Age	21- 29	73	53.3
	30 -39	57	41.6
	40 - 50	7	5.1
	Above 50		
Year of service	less than 2 year	19	13.9
	2 to 4	55	40.1
	5 to 6	21	15.3
	Above 6 year	42	30.7
Educational qualification	Diploma Holder	2	1.5
	First degree holder	120	87.6
	Masters Degree	15	10.9
	Above Masters		
	Others		

Source:Authors computation, 2016

Table 4.1 above presents demographic characteristics of the respondents. It revealed that65% of the respondents in the study were males and the rest 35% were females. From this, it is possible to conclude that the majority of private commercial banks officials are males. The above table also indicated that 53.3% of the total respondents are 21 to 39 years old 41.6% of the respondents are 30 to 39 year old, and the rest 5.1% of them are 40 to 50 years old. This can show that most of the employees of Ethiopian private commercial banks are young; whose age is 21 to 39 years.

The table above also shows that 87.6% of the respondents are first degree holders and 10.9% of the respondents or e-banking department employees have Master's Degree where as 1.5% of them are diploma holders. Hence, the majority of private commercial banks of Ethiopia officials are first degree holders followed by master's

degree holders.

Of the total respondents, as it is indicated in the above table, 40.1% of the employees on e-banking departments had two to four years of work experience; and about 30.7% of them have six years of experience this can give insight that the experience of the employees will help the private banking industry in expansion and development of e-banking service of the banks.

4.2 Benefits and Drivers of Adopting E-banking system in Ethiopia

4.2.1 Perceived usefulness from operational cost saving

Table 4.2 Perceived usefulness cost saving

Items	Mean	Std deviation	Percent (%)				
			SA	A	N	D	SD
Minimize customer service cost	1.66	0.56	38	57.7	4.4	-	-
Decrease transactional cost.	1.7	0.57	36.5	56.9	6.6	-	-
Reduces human resource requirement.	1.72	0 .64	38	53.3	8	0.7	

Where, 1*- strongly agree, 2-Agree 3- Neutral, 4 - Disagree and 5- Strongly agree*
Source: Authors computation, 2016

Table 4.2 above comprises the perceived usefulness of cost saving. As the table indicated 57.7% (with standard deviation of 0.56), 56.9% (with standard deviation of 0.57) and 38% (0.64) of the respondents agree and strongly agree that adopting e-banking technology can eliminate the costs of customers, decrease transaction costs and reduce human resources requirement respectively.

This result has also supports the finding by D'Souza (2002) which states that internet banking, mobile banking and others, banks save a lot of costs. In the long run a bank can save money by not paying for tellers or for managing branches. In e- banking technology adoption customers don't use resources like claim sheets, recites, facilitation and time to be entertained by the bank employees. The result of this study is also consistent with the finding of Cheng, (2006) that indicates users and bankers for its conveniences, speed, round the clock services and access to the account from any parts of the world as lower transaction costs as e-banking requires less paper work, less staffs and physical branches.

4.2.2. Time saving and convenience

Table 4.3 Perceived usefulness Time saving and Convenience.

Items	Mean	SD	**Percent (%)**				
			SA	A	N	D	SD
Convenient, in terms of time saving.	1.50	.530	51.8	46.7	1.5		
Convenient to use at any time and place.	1.66	.656	42.3	50.4	5.8	1.5	-
Reduces physical presence of customer.	1.55	.499	44.5	55.5	-	-	-
Facilitates quick response	1.67	.570	38	56.9	5.1	-	-
Enables users to accomplish activities more quickly and easily.	1.64	.496	36.5	62.8	0.7	-	-
Convenient life style to users.	1.60	.492	40.1	59.9			
Easier way to operate banking transactions	1.68	.541	35	62.8	1.5	0.7	-

Where, 1*- strongly agree, 2-Agree 3- Neutral, 4 - Disagree and 5- Strongly agree*
Source: Authors computation, 2016

As the above table 4.3 shows 51.7% of the respondents strongly agree and 46.7 % agree (Mean response of 1.5) the benefit of e- banking on time related benefit.Again e- banking technology has more benefit as the originator of the technology claims, and e- banking can be used any time anywhere without any limit (Karjaluoto et al, 2002). Also most of them (42.3% and 50.4 % strongly agreed and agreed respectively) understood e- banking technology service is time saving and possible to transact banking service without physical presence and time limitation regardless of absence or lack of infrastructural facilities like internet network electric power

As e- banking technology expands across cities and nation, the number of visitors to banks physically reduces.

The ease of use, quick response and easy way of making banking transactions created convenient environment for customers. Moreover it enhances better life style in using e- banking technology adoption as it is indicated in the table above. The result of this study is consistent with the finding of Calisir and Gumussoy, (2008) that pointed out adoption of e- banking reduces the time and place limitation , easier to be used and provides various benefits to consumers so that it makes banks more efficient in terms of ease of use and access.

4.2.3 Other benefits (service related benefits)

Table 4.3 other benefits

Items	Mean	Std	Percent (%)				
			SA	A	N	D	SD
Improves efficiency and effectiveness	1.60	.513	45.3	54	0.7	-	-
Creates cashless customers.	1.53	.501	46.7	53.3		-	-
Enhance accessibility	1.7	.506	35.8	62.8	1.5	-	-
Increases revenue and enhance image of the bank	1.62	.516	39.4	59.1	1.5	-	-
Provide up to date information to the users	1.7	.494	32.1	66.4	1.5	-	-
Minimizes the risk of carrying cash of customers.	1.5	.502	49.6	50.4	-	-	-

Where, 1*- strongly agree, 2-Agree 3- Neutral, 4 - Disagree and 5- Strongly agree*
Source: Authors computation, 2016

Table 4.4 above presented service related benefits of e-banking. The table shows that 54% (standard deviation of 0.513) of the respondents were agreed that of e-banking improves banks' efficiency and effectiveness, 53.3% of them stated that it can creates cashless customers; 62.8 % of them indicated e-banking enhances accessibility; 59.1% of them agreed that e-banking increases revenue and build banks image; 66.4% said that it provides up-to-date information and 50.4% of them agreed that it can minimize the risk of carrying cash for the customers.

This study is supported with the finding of D'Silva B et al., (2010), that shows e- banking has expanded their geographical reach and may increase customer base through deploying electronic delivery channels at lower cost. The finding of this study is also similar with finding of Young et al (2007) that states electronic bill payment and other related capabilities of e-banking have a real effect on banking practices and rapidly boosts revenue which drives more banks to adopt e- banking technology.

Moreover, e- banking technology adoption uses in banking service minimize the risk of carrying cash among customers. The respondents experience on this perception was identified in the research. Hence almost half of the respondents agreed and half of them strongly agreed about, the role of e- banking in reducing risks of carrying cash.

4.2.4 Perceived Ease of Use

Table 4.5 Perceived Ease of use

Items	Mean	Std	Percent (%)				
			SA	A	N	D	SD
Easier way to conduct Banking transactions	1.71	0.487	30.7	67.9	1.5	-	-
Our customer can use e-banking Technology simply anytime and anywhere banking service.	1.88	0.697	26.3	63.5	5.8	4.4	-
Helps employee give services in easy way.	1.70	0.505	32.1	65.7	2.2	-	-
Customers to complete banking activities easily and more quickly.	1.69	0.496	32.8	65.7	1.5	-	-
Easy to use if someone shows me how to use it first	1.94	0.998	19	75	4.4	0.7	0.7

Where, 1*- strongly agree, 2-Agree 3- Neutral, 4 - Disagree and 5- Strongly agree*
Source: Authors computation, 2016

Hence the research finding indicated in table 4. 5 above, on e-banking technology service providing bank staffs about 67.9% of the respondents agree the ease of e-banking in conducting transaction in banking industry . It is so easy for banks to make any transaction undergone, using e-banking interaction. This implies that it has no sophisticating and complication to work on e- banking, so customers can be satisfied by quick response and smart services. This is consistent with Giglio, (2002) that e- banking service is too easy to use and have more satisfied customers.

Moreover , pertaining to customers perception of ease of use of e- banking technology application , this finding indicate that about 63.5% of the respondents almost agree about ease of use of e-banking use anytime and anywhere; but about 4.4% of the respondents disagree about the e-banking simplicity to use it at any time and everywhere they are living. The interview session also indicates that the available technology is accepted as easy; but people attitude make the thing difficult to apply; and if they started once, they perceive it is easy to use hence persist applying the technology.

In addition to that, this study affirms that about 67.7% of the respondents appreciate the overall system goodness to give service in easier way. So, respondents are interested for further expansion and enrichment of e-banking technology in private commercial banks.

The study also analyzes the ease and the quick services provision to customer using e-banking technology. Accordingly the standard deviation value is minimum (δ =0.5) which implies there is no as such great variance in responding to this question. And about 32.8% strongly agree and 65.7% agree the contribution of e- banking

technology in easing and fasting the service provision to customers .This kind of ease of service and quick response in fact contribute for expansion and adoption of the technology; and more banks according to the interview brief have perceived the technology capability of easing and fastening service provision.

More interestingly, as this finding it has accepted (agreed) almost by 75 % of respondents that e-banking technology service like ATM and mobile internet banking service can be introduced to customers with prior orientation. Then become easier to be applied by customers. This fact also supported during interview session, and the apparent users of e-banking technology are applying it with a few minute orientation made at delivery of cards; and if they use it once there is no as much challenges usually.

4.3 Challenges of adopting E- Banking System in Ethiopia

4.3.1 Technology Perceived Risk

Table 4.6 Perceived Risk

Items	Mean	std	Percent (%)				
			SA	A	N	D	SD
Lack of Confidence in security issue on the use of e-banking technology.	1.92	.455	13.1	83.2	2.2	1.5	-
Fear to use e-banking technologies ,such as ATM, internet banking, and mobile banking	1.96	.460	10.2	85.4	2.2	2.2	-
Lack of trust on the use of e-banking system is a barrier.	1.99	.469	9.5	84.7	3.6	2.2	-
lacks of information security considered as a barrier for the adoption e-banking	2.56	.961	8	51.1	19.7	19	2.2
Using e- Banking requires a lot of mental effort.	3.26	1.024	4.4	23.4	19.7	46.7	5.8
E- banking can be frustrating users to make decision to use	2.65	.904	1.5	56.9	19.7	2.9	2.9

Where, 1*- strongly agree, 2-Agree 3- Neutral, 4 - Disagree and 5- Strongly agree*
Source: Authors computation, 2016

As it is commonly known, people may not welcome every technological services, there may be resistances or even total rejection because the perceived risk related with that particular technology. As the above table 4.6 indicates, 83.2% of the respondents (the employee) agreed that people lack confidence on security; 85.4% (δ = 0.5) of the employees agreed that customersfear to be served using banking technologies; 84.7 % (mean of 1.99) agreed that people lack trust on the banks technologies. This finding is also supported by Khalfan.,*et al (*2006), Sathye (1999), Wondwossen and Tsegai, (2005).

4.4 Environmental Factors

4.4.1 Lack of legal and regulatory frame work

Table 4.7 lack legal and regulatory frame work

Items	Mean	Std	**Percent (%)**				
			SA	A	N	D	SD
Lack of legal and regulatory frame work	2.51	0.979	8.8	54	18.2	15.3	3.6
Legal issues over e-banking considered as barrier	2.45	0.915	9.5	55.5	16.8	17.8	0.7

Where, 1*- strongly agree, 2-Agree 3- Neutral, 4 - Disagree and 5- Strongly agree*
Source: Authors computation, 2016

Every service has to be legal. Customers and financial institutions need to have some legal ground that they need to be being abide with it. Based on table 4.7 above, 54% of the respondents agreed that there is lack of legal and regulatory frame work whereas 15.3% of the respondents disagreed that the existence of such challenge in the system. As the prior research depicted adequate legal frame work can motivate the use of e-banking in Ethiopia (Wondesen and Tsigai, 2005). Despite, 55.5 % of the respondents agreed that legal issues and cases pertaining legality has been hampering the adoption of e-banking in Ethiopia. Garadchew (2010) revealed that lack of legal frame work is one of major challenges in adopting e-banking in Ethiopia.

4.4.2 Lack of adequate infrastructure

Table 4.8 Lack of adequate infrastructure

Items	Mean	SD	**Percent (%)**				
			SA	A	N	D	SD
Lack of reliable infrastructure is challenge	1.49	0.596	54.7	43.1	0.7	1.5	-
Not be effective because of low internet access	1.47	0.708	61.3	34.3	1.5	2.2	0.7
Power interruption is a barrier	1.37	0.51	64.2	34.3	1.5		

Where, 1*- strongly agree, 2-Agree 3- Neutral, 4 - Disagree and 5- Strongly agree*
Source: Authors computation, 2016

The most crucial per-request for the growth of nation is the expansion of Infrastructure in the nation.

There are prerequisite infrastructures for expansion of E-Banking technology, like availability of enriched Internet network, sustainable electric power supply. And it needs to be given recognition for some private bank that pioneers the installation of E-Banking in absence of unflourished infrastructure in the country. However, there is still challenge about the infrastructure, even if the government has committed expansion of such service. There is cut off and interruption of Internet services. As the finding showed in the table 4.8 above 54.7% of the respondents totally accept (very strongly agree) about challenges in relation with technology and as the mean value 1.5 implies the respondents almost accept those challenge hindrance of reliable technological infrastructure. The finding also supported by existence of persistent network interruption and low Internet connection happens as 61.3% of respondents strongly agree of the situation .Beside Internet connection interruption there is also power off time in the country, this has affect the adoption of e-banking technology adoption as 64.2% and 34.3% of the respondents strongly agree and agree rated value given respectively. This implies there are very persistent and serious challenge has encountered by private commercial banks in Ethiopia in the adopting e- banking technology. Generally this finding is very consistent with the study of Gardachew, (2010) and Wondwossen and Tsegai, (2005).

4.4.3 Other environmental Factors

Table 4.9 Other Environmental Factors

Items	Mean	Std	Percent (%)				
			SA	A	N	D	SD
High cost of Internet is as a challenge.	3.5	1.00	3.6	16.8	13.9	56.9	8.8
Lack of familiarity of customers with e-banking technology.	1.99	0.686	19.7	66.4	9.5	4.4	-
Lack of Competition among private commercial banks	3.25	1.11	5.1	27.7	13.1	45.3	8.8
High cost of hard ware (POS, ATM, Server) is a barrier	2.2	0.87	14.6	65	8	10.9	1.5
Government creates favorable environment in adoption of e-banking technology	3.1	1.1	5.1	28.5	27	29.9	9.

Where, 1*- strongly agree, 2-Agree 3- Neutral, 4 - Disagree and 5- Strongly agree*
Source: Authors computation, 2016

In principle, cost would attract or protects customers to buy or use available products or services in the market. Accordingly,56.9 % of the respondent disagreed that high cost of internet is not the challenge; 66.4% of them agreed that lack of familiarity of customers with e-banking technology is a problem; 45.5% of them said that there is no problem related with completion among banks; 14.6% of the employees strongly agreed that High cost of hard ware (POS, ATM, Server) is a barrier and 29.9% of the respondents respond that Government didn't creates favorable environment in adoption of e-banking technology. This study is very consistent with the study made in Greece by Angelakopoulos and Mihiotis (2011) and Ghazi and Khalid (2012) that identified non-familiarity with e- banking technology is the main factor that has a negative impact on the adoption of e-banking technology and cost of e- banking technology is a hindering barrier form expansion and growth of the service.

4.5 Organizational Factors

4.5.1 Financial and human resource

Table 4.10 Organizational factors financial and human resource.

Items	Mean	Std	**Percent (%)**				
			SA	A	N	D	SD
Lack of skilled man power.	2.4	0.894	22.6	63.5	4.4	6.6	2.9
Increases cost of the Bank.	4.3	0.82	6.1	7.3	40.1	47.4	-
Lack of Coordination and cooperation with other banks considered as a barriers.	2.44	0.898	7.3	59.1	19	11.7	2.9
Lack financial resource is a challenge.	2.25	0.829	10.2	67.2	12.4	8	2.2
Lack of technological knowledge is a barrier.	2.05	0.780	15.3	73.7	4.4	3.6	2.9

Where, 1*- strongly agree, 2-Agree 3- Neutral, 4 - Disagree and 5- Strongly agree*
Source: Authors computation, 2016

The study also found organizational factors that would have mentioned as challenges. So there are variables related with resource which may influence the adoption of e- banking technology. These are financial and man power related variables like skills of employee. The researcher in this finding assessed those factors pertaining to its influence on technological adoption. As the above table clearly stipulates about 63.5% the respondents claim lack of professionals who have been trained on e-banking technology system. Also the interview session in this study briefed that technical skill to repair and assemble those technology at spot of the service is challenging, because those technologies are usually imported from other part of the world and there is a few staff at head office level that can repair and adjust those technologies during stacking, shock or other technical problems. Existence of this challenges influence future adoption and expansion of further e- banking technology. Therefore, it needs to work on the technical skills of employees and knowledge of technology transfer among government or private banks themselves. This finding is also supports the a research made in Zimbabwe by Chitura(2008), that

has indicated lack of skilled man power is the major challenges for the adoption of e-banking technology.

Regarding the cost of those e-banking technologies this finding illustrates as the above table 4.10 shows most of the respondents 47.4% more likely disagree about the claim that e-banking increases cost on the bank service expense. This means e-banking doesn't let banks for larger costs compared to its benefit.

Beside internal consideration lack of coordination and cooperation among other private and governmental banks might hamper the development and adoption of e-banking technology .As this finding shows; there is really lack of active coordination and cooperation of e-banking technology adoption among private banks. As table 4.10 response shows, respondents with 59.1% agree and accept the existence of the problem. Of course the interview respondents mentioned some trial of cooperation among a few private banks, and they recently started service cooperation using single apparatus or machine to provide e-banking service like ATM and POS and such initiation has appreciated as a good start.

On other hand banks financial capability to adopt such technology appear to be a barriers ; as the above table 4.10 shows 67.2% of the respondents of this study agrees with the challenges of financial resource to adopt e-banking technologies .This implies private commercial banks have limited by financial resource to adopt such technologies ; but there must be other strategies for solving such challenge. Because it has already accepted that e- banking technology is mandatory in banking services: retain customers, develop banks image, enhancing accessibility etc.

The above table also assessed technological knowledge and skills are gabs in the process of e-banking technology adoption; and 73.7% agree on the lack of technological knowledge in adoption of technology, that mean there are lacks of technical knowledge regarding e-banking adoption. This indeed hindered a lot of things in expansion and further adoption of e-banking technologies in Ethiopia.

4.6 Organizational Factors

4.6.1 Top management support

Table 4.11 Top management Support

Items	Mean	Std	Percent (%)				
			SA	A	N	D	SD
Top managements are assertive in their decision.	3.19	0.967	5.1	19.7	29.9	41.6	3.6
The banks top management support the required resources.	3.09	1.042	5.8	27	24.1	38	5.1

Where, 1*- strongly agree, 2-Agree 3- Neutral, 4 - Disagree and 5- Strongly agree*

Source: Authors computation, 2016

Accordingly ,those top managers in private commercial banks shows less interest to adopt e-banking technology and they are not bold enough and assertive to decide adoption of e-banking technology as only 19.7% of the respondents agree on managerial assertiveness in decision making process regarding adoption of e-banking among private banks in Ethiopia. And 41.1% of the respondents disagree on the top manager active and assertiveness in decision making power on e-banking technology adoption as the above table 4.11 indicates.

Moreover, the above table illustrates that private commercials Banks have challenge to finance e-banking technology adoption. On the other hand top managers ,including board of directors decision to support technologies need to be observed as the empirical model adopted by Tornatzky and Fleischer (1990).Hence according to this research only 5.8% and 27% rated on strongly agree and agree ratings respectively ;but about 38% of the respondents working on e-banking department disagree about the claim that top managers support the department proposal financially to adopt the technologies of e-Banking . That mean more of top managers shows their reluctance in allowing funds with regard to e-banking technology adoption.

Generally, as the above finding shows, there was management challenge on adoption of e-banking technology among private commercial banks in Ethiopia .And if top managers don't allow or support a program, the probability of having expand or be successful in accomplishment of goal is very narrow. But the optimistic side of the e-banking technology is bright, because currently mangers decision and support have been increasing, as the importance of technology becomes understood well. This finding also consistent with Ghazi and Khalid (2012) which suggested that, lack of top management support is one of the inhibiting factors in the adoption of e-banking technology.

5. Conclusion and Recommendations

5.1 Conclusion

This study aims at assessing the perceived benefits and challenges of E-banking adoption in Ethiopian private commercial Banks. Hence the study concluded that adoption of e-banking has positively impact on the efficiency and effectiveness of the banking service by improving accessibility and profitability of the banks. The study further concludes that adoption of e-banking technological innovation benefits both customers and banks that drive banks for the adoption of the system.

In general Perceived Ease of use is one of the basic benefits for E-Banking, in which it enables bank staffs

to perform banking activities in a simple way. Electronic banking has improved the bank customer relationship by rendering effective services throughout the day and night in every week. Customers can now have access to their account outside working hours to make withdrawal to attend to their needs; also customers can transfer from one account to another through electronic means.

The other driving force for the adoption of the system is perceived usefulness, in which, it is used for time saving and cost reduction which enhanced Ethiopian commercial banking industry by making it more productive and effective. E-banking also has a strong positive impact on the overall banking performance by making workers performance more effective and efficiency; These and the other benefit identified in this study were considered as a very great potential for banks to improve their public image and retain customers for long.

Today most of private commercial banks in Ethiopia have invested on e-banking applications, however the system is not well strengthen in providing services due to various challenges. Such as low level of ICT and power infrastructure, lack of legal frame works. In addition security risk with ATM, mobile banking, internet banking lessen confidence of customer to use those technologies. Moreover lack of trust on the use of technological innovation used by banking industries, is one a major challenge for the system. There is also limited top management support among private banks adoption of E-banking.

In general from this finding can be understood that e- banking technology has been putting significant impact on the banking service provision and banks customer satisfaction. And e- banking technology has perceived positively among the facilitator of the technology , even though there are few miss conception of dependability among customers , and private banks has started to expand such service independently and in partnership ,such kind of corporative strategy helps the e- banking technology move forward in the nation.

5.2 Recommendations

The lack of legal and regulatory framework for e-banking services has discouraged banks from introducing these innovative e-banking. The Ethiopian government should put direction that can enhance the adoption of e-banking technologies in the private banking industry of the country.

Beside, private banks struggle to expand e- banking technology, the National Bank of Ethiopia should prepare various capacity building activities for banks regarding e-banking operation and provide incentives for banks to invest rigorously on information technology and use of e-banking.

The National bank of Ethiopia, in collaboration with all private commercial banks in the country should prepare typical security technologies applicable to control system networks such as firewall, intrusion detection and prevention etc.

Awareness with respect to ease use, security, timely, accessibility and convenience of e-banking should be created to the public through different ways such as advertisement, and magazines.

E- Banking technology adoption has optimistic future because of its easy-to-use. It is important for all customers so, banks should work to make e- banking as simple and easy to use as possible so that customers do not perceive it as being complicated or difficult to use and can use it largely.

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