



IMPACT OF CASHLESS BANKING ON PROFITABILITY IN BANKING INDUSTRY OF PAKISTAN

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Abstract

The research is to analyze the impact of cashless banking on profitability in banking industry of Pakistan. For that purpose, five banks have selected from Pakistani banking sector who are offering cashless banking and have major market share. There are different means of cashless banking but for the study purpose, three major options were selected i.e. point of sales transactions, mobile banking transactions and internet banking transactions. In order to analyze the impact on the profitability, the data for six years (2013- 2018). The ratio analysis is a very authentic and reasonable tool, which is selected to analyze the profitability of the banks for the given period. The profitability ratios provide a real estimation about the increase or decrease in profitability of a firm within a financial year. The data is collected from secondary resources such as articles, online journals, text books and library resources. The results shows that cashless banking has a very significant on the profitability of the selected banks in banking industry of Pakistan. The banks are required to educate and create more and more awareness to the existing and prospect customers. This will be helpful to provide better customer support, reduce costs for banks and achieve more economies of scale that will eventually leads towards profitability of banks. The profitability of the banking sector due to cashless banking results in better economic activity and growth of Pakistan's banking industry

Key Words: Cashless Banking, Profitability, Point of Sales, Internet Banking, Mobile Banking, Ratio Analysis.

1. Introduction

The banking sector is considered as most important source of economic source of economic development of a country. As the time passes the banking industry integration is more towards virtual side, instead of branch banking. The extensive use of internet and information technology, most of the banks are creating innovative solutions that may lead towards branchless and cashless banking. Some of the examples include use of internet banking, POS Transactions and mobile banking. All these innovative options are useful to provide better customer support and reduction in the costs of banking sector for the enhancement of profitability (Kamboh, 2016). The banking industry of Pakistan is revolutionized with the integration of IT to provide innovative solutions for the general public. Due to technological advancement, banking industry is able to attract more and more customers towards cashless banking that reduces the customer traffic towards branch banking. Even in Pakistan, a number of banking customers are using the internet and mobile banking services for sending and receiving payments (Mustapha, 2018).

The aim of the study is to provide insights about the impact of cashless banking on profitability in banking industry of Pakistan. For this purpose 6 banks were selected who have significant number of cashless banking users. These banks include MCB Bank Limited, UBL Bank Limited, Allied Bank Limited, Bank Alfalah, Bank Al Habib and Standard Chartered Bank Pakistan Limited. The data is collected from the financial statements which are available on their official websites. In order to check the profitability, Ratio Analysis method is used. There are four types of profitability ratios which are used in this research to analyze the profitability of the selected banks for the year 2013 to 2018. The results of the study shown that internet banking, mobile banking and POS transactions are significantly adding contribution in the profitability of the banking industry in Pakistan. The conclusion include a general overall review of the research and areas of improvement for banking sector to gain more profit through cashless banking (Abbasi, 2017).

2. Research Aim & Objectives

The research aim is to analyze the impact of cashless banking on profitability in banking industry of Pakistan. The research objectives are as follows:

- To analyze the impact on profitability of banks in Pakistan due to cashless banking
- To review the financial ratios of the selected banks in order to identity impact on profitability
- To identify which methods of cashless banking have a significant impact on the profitability in Banking industry of Pakistan

2.1 Research Question:

Is Cashless Banking has a significant impact on profitability in banking industry of Pakistan?

3. Literature review

The literature review will provide a detailed information about the impact of cashless banking on profitability in banking industry of Pakistan. The literature review provides information given on the same topics in previous studies and their methodology to calculate the profitability. Let's discuss the literature review components in detail:

3.1 Evolution of Cashless Banking in Pakistan

Cash less banking can be defined as: “The act of making the banking and other financial transactions without using cash or conventional branch banking services”. There are multiple methods of cashless banking. These methods include automated teller machine transaction, internet banking transactions, mobile banking transactions, point of sales transactions, e-commerce and phone banking transactions (Firdous, 2017). Some of these methods have significant impact and used by a number of users. For example before the evolution of internet and mobile banking, Standard Chartered Bank Pakistan Limited was offering the phone banking services to fulfill the customer’s banking needs over the phone. Customer can call on helpline 24/7 and order for cheques book, pay order, demand draft, credit card payments and account to account fund transfer (Usman, 2016).

As the technology evolves, more and more banks engaged in building their customer’s portfolio to improve the customer services and to reduce customer’s traffic in branches. According to data provided by State Bank of Pakistan, till 2017, there are 24 banks which have already started internet banking services to promote the cashless banking in Pakistan. Similarly, 18 banks are offering the mobile banking application for making the financial transaction such as fund transfer, payment recites, credit card and utility bill payments, mobile top up and so on (Tunde, 2016). The below mentioned figure shows the payment systems infrastructure according to the data provided by State Bank of Pakistan:

Figure 1: Payment System Infrastructure in Pakistan Banking Industry

Payment Systems Infrastructure as on 30 th September 2017	
Number of Banks (Branches)	44 (14,422)
Commercial/ Specialized Banks (Branches)	33 (13,532)
Microfinance (Branches)	11 (890)
Number of Real Time Online Branches (RTOBs)	14,285
Number of banks having ATM machines	31
Number of banks having POS machines	9
Number of banks providing Internet Banking services	24
Number of Banks providing Mobile Phone Banking services	18
Number of Banks providing Call Center Banking services	24
Total Number of PRISM System Participants	41
Total Number of eCommerce Merchants registered with Banks	812
Total Number of ATMs	12,963
Total number of ATMs Interoperable Switches	2
Total number of Cash Deposits Machines (CDMs)	55
Total number of POS Machines	49,929

3.2 Modes of Cashless Banking in Pakistan

There are multiple modes of cashless banking to provide customer support and convince. These modes may include internet banking, point of sales transactions, mobile banking, automated teller machine transactions, and e-commerce and so on. If we talk about Pakistan’s banking industry perspective the most transactions are through three significant modes of cashless banking i.e. mobile banking transactions, internet banking transactions and POS transactions.

These three major modes of transactions constitutes the 63% of the total cashless banking transaction and the percentage is still increasing due to extensive use of internet and customer's awareness with time (Harelimana, 217). The below mentioned table shows three most important modes of cashless banking and transaction types for the year 2017- 2018

Table 1: Values of different transactions through internet banking, mobile Banking and Point of Sales

(Values in Billions)

Transaction Type	Internet Banking		Mobile Banking		POS Transactions	
	Year 2017	Year 2018	Year 2017	Year 2018	Year 2017	Year 2018
Intra-Bank Funds Transfer	51.4	61.8	22.6	34.8	27.4	33.4
Inter Bank Fund Transfer	56.6	68.7	29.5	42.4	18.3	22.6
Utility Bill Payments	4.5	3.8	2.1	3.2	18.8	27.5
Misc. Payments (E-commerce)	91.5	102.6	63.6	75.4	135.4	148.8

Source: State Bank of Pakistan (Payment Systems Statistics Report 2017-18)

The above mentioned table shows that internet banking, mobile banking and POS transactions contribute towards major share of cashless banking especially in banking industry of Pakistan. There are 2.9 million registered Internet banking users and almost 3.5 million registered Mobile banking as per the statistics issued by the State Bank of Pakistan (SBP).

3.3 Overview from Previous Studies

Various researches have been conducted to analyze the impact of cashless banking methods such as internet banking and mobile banking on profitability of banking industry in various parts of the world. It is observed that those banks who were the early adopters of cashless banking and provided this innovative platform to their customers become able to capture more market share than their competitors (Mittal, 2017). In means that cashless banking act as a competitive advantage for the early adopters in terms of cost reduction and profitability maximization. It not only creates convenience for customers in terms of time saving and ease of use, but also helped to improve the customer satisfaction and brand image of the banking firm (Sandada, 2017).

(Ahmad, 2018) Analyzed the impact of internet banking on profitability of banking industry in UK. The Analysis was made to analyze and compare the operational efficiency and profitability before and after the internet banking launch by increasing revenues and reduction in cost. The results of the study revealed that net income and operational efficiency of the banks who started the internet banking as early adopters is quite better than the competitors in the industry. It is also concluded that cashless banking also results in reduction in costs such as hiring of new staff members and opening of new branches in different areas of the country.

Another study made by Siddique (Kocisova, 2018) revealed that profitability of banking industry Of Pakistan has increased due to introduction of modern e- banking as compared to traditional measures of profitability such as bank size, deposits or market share. The results confirm that banks are more investing towards information technology framework so that they can provide best facilities to their employees and ease of making transactions through internet banking. The analysis also confirms that internet base transactions results in improved banking profitability, efficiency and capturing better market share as compared to conventional branch banking.. Although it requires a lot of time to create awareness and earn long term benefits. Similarly, (Maison, 2018) evaluated the relationship between financial innovation and commercial bank performance in Kenya. The study showed that there is a significant increase in revenue due to financial innovation and banking industry is earning better profitability as compared to previous years. A change is also occurred in customer's perception due to launch of e- banking as they can apply for the financing facilities and other banking requirements as request of check book, issuance of ATM card etc. over the internet. They also showed that more and more customers are able to send and receive funds and efficiency of business owners and managers has also increased tremendously.

(Ajide, 2016) Studied analyzed the perceptions of banking industry due to launch of e-banking in Turkish banks. In Turkish banking industry banks are mainly divided into commercial and microfinance banks. The information showed that due to emergence of internet banking services more and more people are applying for financing facility through internet banking. This study confirmed that internet banking services play an important role on profitability due to increase in customer base, and reduction in human resources (Muchiri, 2017). Although the impact on profitability due to internet banking is not really significant as people are resistant towards adopting latest technology. Another impact that contributes towards slow profitability growth is the perception of individuals associated with financial risk involved in the internet banking transactions (Alamu, 2018).

4. Methodology

The research methodology contains the techniques to identify and analyze the information about the research topic. Research methodology not only provide information for readers to understand reliability of information but also helps the researcher to reach at the conclusion. The components of research methodology are research population, size of the sample, data collection technique, and theoretical framework of research (Menicucci, 2016). Further description of these items is given in the following paragraph:

The research population is as per the selected research topic which is "impact of cashless banking on profitability in banking industry of Pakistan". For the research purpose, six banks were selected from banking industry of Pakistan. These six banks were MCB Bank Limited, UBL Bank Limited, Allied Bank Limited, Bank Alfalah, Bank Al Habib and Standard Chartered Bank Pakistan Limited. The. The data for this research is taken from the financial statements of the selected banks for the year 2013 – 2018. The secondary data is used in the research and is downloaded from website of these banks. The reports and resources of State bank of Pakistan,

online journals resources, articles and text books were also important source of secondary data. The theoretical framework of each research is a unique technique or methodological approach which helps in determining the results. For the current research, ratio analysis method is used to analyze the impact of cashless banking on profitability of banking industry of Pakistan. The reason to adopt this theoretical framework is, that financial ratios provide a real time information about the profitability and performance efficiency especially in banking industry's perspective.

4.1 Measuring the Profitability Ratios:

The profitability ratios are actually the measure of profitability and organizational performance. It tells the users that how much an organization has the capacity to earn profits by the effective utilization of its financial resources such as assets, and equity. There are four types of profitability ratios that can be used to measure the profitability of selected banks. These ratios include Gross Profit Margin, operating profit margin, return on assets and return on equity.

Gross profit margin or gross margin about the profitability of products and services of an organization. It actually provides information how much it costs for an organization to produce a specific product or services. As we are discussing about the cashless banking, the gross profit margin will tell that how efficiently the branchless banking is contributing towards the profitability in terms of percentage. The formula for Gross profit margin is as follows:

$$\text{Gross Profit Margin} = \text{Gross profit} / \text{Net assets} \times 100$$

Table 2 shows the increase in Gross profit margin of the selected banks after the launch of cashless banking in banking industry of Pakistan

Table 2: Increase in Gross Profit Margins (2013 -2018)

Details	2013	2014	2015	2016	2017	2018
MCB Bank Limited	12.8%	13.8%	14.5%	14.4%	14.9%	15.8%
Allied Bank Limited	14.3%	15.2%	13.8%	15.9%	16.6%	17.2%
UBL Bank Limited	10.3%	11.2%	11.8%	12.4%	13.6%	13.8%
Bank Alfalah Limited	18.8%	19.2%	19.7%	20.3%	20.9%	21.5%
Bank Al Habib Limited	9.6%	9.9%	10.2%	12.3%	12.6%	13.4%
Standard Chartered Bank Pakistan Limited	16.4%	16.9%	17.4%	17.8%	18.6%	18.8%

Operating profit margin considers the costs of producing products and services which are irrelevant to the production of products and services. These costs include overhead and administrative expenses that occur during the production. In cashless banking, the Operating profit margin will describe the impact of branchless banking on profitability of banking sector after excluding the administrative expenses. This will provide a more valuable insight about the profitability as compared to gross profit margin. The formula for Operating profit margin is as follows:

$$\text{Operating Profit Margin} = \text{Operating profit} / \text{Net assets} \times 100$$

Table 3: Increase in Operating Profit Margins (2013 -2018)

Details	2013	2014	2015	2016	2017	2018
MCB Bank Limited	16.4%	17.8%	18.3%	18.8%	19.2%	20.4%
Allied Bank Limited	15.6%	16.4%	17.3%	18.2%	18.6%	19.4%
UBL Bank Limited	11.4%	12.3%	12.9%	13.6%	13.9%	14.2%
Bank Alfalah Limited	20.2%	20.8%	21.3%	21.6%	22.1%	22.8%
Bank Al Habib Limited	10.4%	10.8%	11.5%	12.1%	13.5%	14.7%
Standard Chartered Bank Pakistan Limited	17.5%	17.8%	18.6%	18.9%	19.3%	20.4%

Another measure of increase in the profitability of banking sector of Pakistan due to cashless banking is increase in return on assets. The cashless banking provide more opportunities to the banking sector to make inter-bank and intra-bank fund transfer. Due to this reason, Banks's assets have increase significantly due to increase in deposits and customer base. This will impact on the profitability of the bank as will get earning against their assets. The return on assets describes how much a bank earns against one dollar spent against its assets. The formula of ROA is given below

Return on Assets = Net Profit / Total Assets

Table 4: Increase in Return on Assets due to Cashless Banking (2013 -2018)

Details	2013	2014	2015	2016	2017	2018
MCB Bank Limited	1.4%	1.6%	1.8%	2.1%	2.2%	2.8%
Allied Bank Limited	1.3%	1.4%	1.3%	1.6%	2.4%	2.7%
UBL Bank Limited	1.1%	1.2%	1.5%	1.4%	1.3%	1.7%
Bank Alfalah Limited	1.6%	1.1%	1.4%	1.8%	1.8%	1.9%
Bank Al Habib Limited	1.3%	1.6%	1.6%	1.4%	1.5%	1.8%
Standard Chartered Bank Pakistan Limited	1.3%	1.3%	1.5%	1.6%	1.8%	2.1%

The return on equity describes the profitability of a bank against its one dollar spent on equity. The impact of increase in return on equity due to branches banking is shown in following table:

Table 5: Increase in Return on Equity due to Cashless Banking (2013 -2018)

Details	2013	2014	2015	2016	2017	2018
MCB Bank Limited	11.24%	11.36%	11.48%	12.12%	12.26%	12.81%
Allied Bank Limited	13.42%	13.46%	13.38%	14.62%	14.48%	15.24%
UBL Bank Limited	12.13%	13.24%	13.85%	14.84%	15.32%	16.73%
Bank Alfalah Limited	13.63%	13.98%	14.12%	14.86%	15.21%	15.94%
Bank Al Habib Limited	9.34%	10.62%	10.66%	10.84%	11.25%	12.11%
Standard Chartered Bank Pakistan Limited	16.31%	16.83%	16.58%	17.26%	17.58%	17.19%

5. Results

The above mentioned ratios revealed that profitability of the selected banks have raised significantly in the observation period i.e. 2013-2018. It means that cashless banking is creating a positive impact on the profitability of in banking industry of Pakistan. As more and more customer are engaged in the cashless banking due to awareness and marketing campaigns launched by the commercial banks, there will be more increase in economic activity and profitability of the banks in Pakistan's banking industry.

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6. Conclusion

The research conclusion is that cashless banking has a significant impact on the profitability of banks in Pakistan's banking industry. Due to extensive use of internet, the customers are becoming more aware about the internet banking other cashless banking facilities. It provides a lot of convenience to customers, improve efficiency of the branch staff, and reduces cost of hiring and training new resources and adding value towards economic growth. Almost all banks are planning towards achieving the competitive advantage by educating and creating awareness about cashless banking. It is the need of the hour as it helps to increase market share, brand image and sustainability in the banking sector. The banks should focus on the security and confidentiality of customer's information to increase the level of trust and enhance customer's satisfaction.

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