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:

Gross Profit Margin = Gross profit / Net assets x 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:

Operating Profit Margin = Operating profit / Net assets x 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.

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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