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Impact of Digitisation on Efficiency of the Working Capital Finance Process & Financial Performance – A Study of Kotak Mahindra Bank Limited

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ABSTRACT

Kotak Mahindra Bank provides Working Capital Finance services to small businesses up to 7.5 crores. Currently, the WC Finance process has a turnaround time of thirty days on an average. The reduction in turnaround time can be achieved through digitalization of manual activities which consume excessive time in the funding process and help develop a competitive advantage. Thus, this study aims to identify such areas responsible for increased turnaround time which can be digitalized for the purpose of ultimate faster processing of Working Capital Finance. The study also tries to establish the effect of digitalisation in form of Electronic Payments Volume Growth including NEFT, RTGS and Mobile transactions on the various profitability, liquidity and efficiency ratios of the bank for the past five years. The unavailability of the digital application form, excess time consumption in the collection of documents and charges, duplication of work on the Loan Origination System and dispossession of certain solutions at the branch level itself were some of the findings. Digitalisation facilitates an increase in growth of advances but increases costs due to maintenance and other fixed costs. The study concludes that solutions like a Chatbot, an online form, faster approvals, LOS optimization can be incorporated to move further towards digitalization and deliver paramount services to dynamic customers. It was found that digitalisation does not reflect in profitability in short term and it may take time to deliver financial returns. The megatrends will shape up the Digital Transformation of the Banking Industry by the implementation of such suggested solutions.

Key Words: Working Capital Finance, Digitalisation, Turnaround time (TAT), Superior, Customer Service, Financial Performance.

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INTRODUCTION

The banking sector is the section of the economy devoted to the holding of financial assets for others, investing those financial assets as leverage to create more wealth and the regulation of those activities by government agencies. India's banking sector is a study in contrasts: it supports the world's fastest-growing large economy but is grappling with challenges that test its strength and resilience. The Indian government's twin thrusts—to encourage digital identification and cashless transactions—are driving change throughout the economy. The financial innovation in development and design the implementation of innovative financial process, in today's digital age and hyper-connected environment require banks to re-imagine their business continuity. The year 2018 will be growth fuelled by innovative initiatives such as Unified Payments Interface (UPI) and technology.

Overview of Kotak Mahindra Bank Limited

Established in 1985, the Kotak Mahindra group is one of India's leading financial services conglomerates. The Group offers a wide range of financial services that encompass every sphere of life. From commercial banking to stock broking, mutual funds, life insurance, and investment banking, the Group caters to the diverse financial needs of individuals and the corporate sector. The Group has a wide distribution network through branches and franchisees across India, and international offices in London, New York, Dubai, Abu Dhabi, Mauritius, and Singapore.

Kotak Mahindra Bank is an Indian **New Private Sector Bank** headquartered in Mumbai, Maharashtra, India. The private sector banks are split into two groups by financial regulators in India, old and new. The old private sector banks existed prior to the nationalization in 1968 and kept their independence because they were either too small or specialist to be included in nationalization. In 2016, it was the fourth largest private bank in India by market capitalization. (Wikipedia, Kotak Mahindra Bank Ltd., n.d.), (Kotak-Mahindra-Bank-Ltd, n.d.) .

Kotak Mahindra Bank Peer Comparison– Few Fundamentals

Name	Market Cap. (Rs. Cr.)	Net Interest Income	Net Profit	Total Assets
HDFC Bank	550,818.45	80,241.35	17,486.75	1,063,934.31
Kotak Mahindra	261,368.80	19,748.49	4,084.30	264,933.40
ICICI Bank	173,694.37	54,965.89	6,777.42	771,791.46
Axis Bank	131,915.26	45,780.31	275.68	691,329.57
Yes Bank	81,299.44	20,267.42	4,224.56	312,445.60

Figure 2: Kotak Mahindra Bank Peer Comparison- Few Fundamentals
(Moneycontrol, 2018)

Working Capital Finance

A working capital loan is a loan that has the purpose of financing the everyday operations of a company. Working capital loans are used to cover accounts payable, wages, etc. Companies that have high seasonality or cyclical sales cycles usually rely on working capital loans to help with periods of reduced business activity.

Products offered under Working Capital Finance

Fund Based-

1. Cash Credit
2. Bills Discounting
3. Working Capital Demand Loan
4. Overdraft
5. Term Loan
6. Export Finance (Pre Shipment/ Post Shipment)

Non-Fund Based-

1. Bank Guarantee
2. Letter of Credit
3. Buyer's Credit

Scope:

The Scope of the project is confined to Kotak Mahindra Bank Limited and its digitalisation.

OBJECTIVES

a. To study the process of Working Capital funding from lead generation to disbursement and the current level of digitalisation.
b. Devising ways to reduce the turnaround time by digitalizing processes to facilitate more convenience to KMBL and quicker, hassle-free service to customers.
c. To study the effect of digitalisation on the financial performance of Kotak Mahindra Bank Limited with respect to a few Profitability, Liquidity and Efficiency ratios.

LITERATURE REVIEW

Egland et al. **(1998)** was the first study, which estimated the number of US banks offering Internet banking and analyzed the structure and performance characteristics of these banks. It found no evidence of major differences in the performance of the group of banks offering Internet banking activities compared to those that do not offer such services in terms of profitability, efficiency or credit quality. However, transactional Internet banks differed from other banks primarily by size.

DeYoung **(2001a, 2001b, 2001c and 2005)** analyzed systematically the financial performance of pure-play Internet banks in the U.S. The study found relatively lower profits at the Internet-only institutions than the branching banks, caused in part by high labor costs, low fee-based revenues, and difficulty in generating deposit funding. However, consistent with the standard Internet banking model, the results indicated that Internet-only banks grow faster than traditional branching banks. Internet-only banks have access to deeper scale economies than branching banks and, they are likely to become more financially competitive over time as they grow larger.

***Sathye* (2005)** investigated the impact of the introduction of transactional Internet banking on the performance and risk profile of major credit unions in Australia. The Internet banking variable didn't show a significant association with the performance as well as with operating risk variable. Thus, Internet banking didn't prove to be a performance enhancing tool in the context of major credit unions in Australia. It neither reduced nor enhanced risk profile.

***Malhotra P. et al.* (2009)** seeks to examine the impact of Internet banking on banks' performance and risk. The multiple regression results reveal that the profitability and offering of Internet banking do not have any significant association, on the other hand, Internet banking has a significant and negative association with the risk profile of the banks.

***Harelimana J.* (2018**) a study on the role of electronic payment system on the financial performance of financial institutions in Rwanda: a case study of Equity Bank Ltd was carried out under the period from 2012 to 2016. Education and experience of the clients were found to significantly impact on electronic payment. There is, therefore, the need to design short training in the area of how to use a different way of access electronic payment different of clients of equity bank limited particularly those with a lower educational background as education is an important factor in accessing electronic payment system.

RESEARCH METHODOLOGY

- **Data collection:** It was a Causal/ Conclusive research and secondary data was used for the project.
- **Source of the data collected:** The required data was sourced from the database and existing documents with Kotak Mahindra Bank Limited including the current process flow of Working Capital Finance. Data

was also collected from a few websites, company annual reports, Articles, RBI website and Database on Indian Economy.

- **Sample and Sample size:** The sample size was 1 that is Kotak Mahindra Bank Limited. (Electronic payments growth year on year and profitability, liquidity and efficiency ratios for five years from 2013 to 2017 respectively).
- **Data analysis technique:** The project focused on identification and digitalization of processes so the data was qualitative (non-metric) partly. **Inferential** statistics that is **parametric tests** were used, **correlation**, as well as linear regression tests, were performed. Electronic Payments Growth was the independent variable. All the statistical computations were performed using SPSS.

Hypotheses: (EPG- Electronic Payments Growth)

Profitability

i. **Ho**: There is no statistically significant positive correlation between Profitability ratios and EPG.
   Ha: There is a statistically significant positive correlation between Profitability ratios and EPG.

ii. **Ho:** There is no statistically significant prediction of Net Interest Margin by EPG.
   Ha: There is a statistically significant prediction of Net Interest Margin by EPG.

iii. **Ho:** There is no statistically significant prediction of Return on Asset by EPG.
   Ha: There is a statistically significant prediction of Return on Asset by EPG.

iv. **Ho:** There is no statistically significant prediction of Advances Growth by EPG.
   Ha: There is a statistically significant prediction of Advances Growth by EPG.

Similarly, the hypotheses are for Liquidity (Current Ratio, Capital Adequacy Ratio) and Efficiency (Cost to Income Ratio, Intermediation and Operating Costs to Total Assets) Ratios.

Description of the Variables

Working Capital Finance: Working Capital Finance is a loan provided to Small and Medium Enterprises to fulfill their short-term obligations.

Digital Banking: Digital banking is the move to online banking where banking services are delivered over the internet. The advantages for banks and customers are providing more convenient and faster banking services.

Electronic Payments Volume Growth: This refers to the growth in the volume of banking payment transactions performed by the users. These transactions only involve the NEFT, RTGS and Mobile Transactions taken as an average for a year and growth in terms of percentage year on year increase is considered.

Profitability Ratios

- **Net Interest Margin**
  Net interest margin (NIM) is a measure of the difference between the interest income generated by banks or financial institutions and the amount of interest paid out to their lenders.
- **Return on Assets**
  Return on assets (ROA) is an indicator of how profitable a company is relative to its total assets. ROA gives an idea as to how efficient a firm's management is at utilising assets to generate earnings.
- **Advances Growth**
  Advances Growth refer to the year on year percentage growth in Advances or loans provided by the bank.

Liquidity Ratios

- **Capital Adequacy Ratio**

Capital Adequacy Ratio (CAR) is also known as Capital to Risk (Weighted) Assets Ratio (CRAR), is the ratio of a bank's capital to its risk.

- **Current Ratio**
  The current ratio is a liquidity ratio that measures a company's ability to pay short-term and long-term obligations. The current ratio considers the current total assets of a company relative to that company's current total liabilities.

Efficiency Ratios

- **The cost to Income Ratio**
  It shows a company's costs in relation to its income. To get the ratio, divide the operating costs (administrative and fixed costs, such as salaries and property expenses, but not bad debts that have been written off) by operating income.
- **Intermediation cost to Total Assets Ratio**
  The ratio of intermediation cost to total assets is a ratio of operating expenses relative to the total assets and is an indicator of efficiency.
- **Operating costs to Total Assets Ratio**
  Operating costs to Total Assets Ratio is more of an indicator of a bank's business efficiency rather than a basis for detailed cost analysis.

DATA ANALYSIS AND INTERPRETATION

A study on the effect of digitalisation on financial performance of KMBL, with respect to profitability, liquidity and efficiency ratios

*Electronic Payments Volume Growth Includes NEFT, RTGS and Mobile Transactions average only for the years.

Source: (RBI, Database on Indian Economy, n.d.) (RBI, Payments and Settlement Systems, n.d.)

The table shows the ratios of Profitability, Liquidity, and Efficiency of Kotak Mahindra Bank Limited for the past five years that is from 2013 to 2017. These ratios are the dependent variables for the study. The table also shows the Volume Growth in Electronic Payments year on year from 2013 to 2017 and includes an average of the total NEFT, RTGS and Mobile Transactions volumes for those years respectively of Kotak Mahindra Bank Limited.

KMBL	PROFITABILITY			LIQUIDITY		EFFICIENCY			Electronic Payments Volume Growth* (%)
Year	Net Interest Margin (%)	Return on Assets	Advances Growth (%)	Capital Adequacy Ratio	Current Ratio	Cost-to-Income Ratio (%)	Intermediation cost to Total Assets Ratio	Operating costs to Assets Ratio	
2013	4.6	1.81	8.5	16.05	0.5	51	2.96	2.43	20.45
2014	4.9	1.8	9.4	18.83	0.59	50	2.97	2.62	43.47
2015	4.9	1.98	24.8	17.17	0.4	52	3.36	2.85	69.16
2016	4.3	1.19	79.4	16.34	1.14	58	3.67	3.07	79.57
2017	4.5	1.73	14.7	16.77	1.1	48	2.76	2.9	78.47
Average	**4.64**	**1.7**	**27.36**	**17.03**	**0.75**	**51.8**	**3.14**	**2.77**	**58.22**

	R Square	Constant	Electronic Payments Growth	Sig.
Net Interest Margin	12.80%	4.852	-0.004	0.554
Return on Assets	17.40%	1.986	-0.005	0.485
Advances Growth	34.80%	-12.581	0.686	0.295
Capital Adequacy Ratio	0.50%	17.209	-0.003	0.909
Current Ratio	42.90%	0.228	0.009	0.23
Cost to income Ratio	8.80%	49.268	0.043	0.629
Intermediation costs to Total Assets Ratio	16.70%	2.805	0.006	0.494
Operating Costs to Total Assets Ratio	94.30%	2.221	0.009	0.006

SUMMARY OF FINDINGS AND SUGGESTIONS

Working Capital Finance Process

The identified areas where digitalization can be implemented are:

1. The communication or interaction step between the Branch RM and Working Capital BRM can be digitalized through an instant channel. Also, every branch RM should be provided with basic information regarding products and eligibility so he can interact with the customer and he can input his requirements so that customer does not have to wait until WC RM attends him and the process time is reduced. (Refer Annexure II) Simple mobile devices will also help RMs for viewing assigned leads, search leads, schedule tasks, follow-ups, and view pending items, alerts, and notifications. The step where the BRM collects the photocopies of the documents can be digitalized by uploading scanned copies of the documents with imaging technology, immediately to the teams instead of the teams waiting to receive the physical copies of documents.

2. The Credit TAT can be reduced if documents are uploaded on LOS by the BRM at the beginning of the process simultaneously with providing physical copies. Also, Approving Authorities can approve the cases on LOS along with emails and allow for further processing. Queries of Credit team should be discussed in the personal meeting with the client itself. Operations RCAD team can raise queries simultaneously with Credit team for faster generation of RFD.

3. A mobile application can be created for Working Capital Finance or it can be incorporated into the Kotak Banking app as well. Chatbots can be utilized for responding to any queries and provide solutions to customers for FAQs while application filling. Digital tracking system for customers as well as the bank should be used to know at what stage is the application currently.

Effect of Digitalisation On Financial Performance of KMBL

1. Profitability - The profitability ratios of Net Interest Margin (NIM), Return on Assets (ROA) are negatively correlated and Advances Growth is positively correlated with Electronic Payments Growth but is not

statistically significant. Therefore, the null hypothesis is accepted and the alternate hypothesis is rejected. The Net Interest Margin, Return on Assets & Advances Growth ratio regressions are not statistically significant. Therefore, the null hypothesis is accepted and the alternate hypothesis is rejected.

2. Liquidity - The liquidity ratio of Capital Adequacy Ratio is negatively correlated and the Current ratio is comparatively positively correlated with Electronic Payments Growth but not statistically significant. Therefore, the null hypothesis is accepted and the alternate hypothesis is rejected. The Capital Adequacy Ratio and Current Ratio regressions are not statistically significant. Therefore, the null hypothesis is accepted and the alternate hypothesis is rejected.

3. Efficiency - The efficiency ratios of Cost to Income ratio, Intermediation cost to Total Assets ratio and Operating Costs To Total Assets ratio (statistically significant) are positively correlated with Electronic Payments Growth. Therefore, the null hypothesis is rejected and the alternate hypothesis is accepted (for Operating Costs To Total Assets ratio). The Cost to Income Ratio and Intermediation cost to Total Assets ratio regressions are not statistically significant, but the regression of Operating costs to Total Assets is statistically significant. Therefore, the null hypothesis is accepted and the alternate hypothesis is rejected. The null hypothesis of Operating Costs to Total Assets ratio is rejected and the alternate hypothesis is accepted.

CONCLUSION

Digitalization in Banking is the need of the hour amidst the cut-throat competition in this industry and the changing expectations of the imminent generation of customers. The effect of digitalization is negative on profitability and it may lead to a decrease in the profitability of KMBL though the Advances grow. This may be due to the higher cost of operations, including fixed cost and labor cost, which is consistent with some studies that were reviewed. The effect of digitalization on liquidity is positive as it improves the liquidity position of KMBL by freeing up working capital. The effect of digitalization on efficiency is negative as it increases the operating costs of the bank due to adaption pressures and

regulatory restrictions, integration costs associated, resistance to change from society, and complex data architecture. However, the returns on digitalization of banks take time to deliver desired results due to high initial investments and maintenance costs. The effect of digitalization can be also studied through levels of customer satisfaction. Digitalization will play a huge role to accomplish this with the digital megatrends of BigData, BlockChain, Cloud Computing, Smartphones, Analytics, Artificial Intelligence and Robotics changing the face of Banks, leading the Global Banking Industry and the Customers towards transformation nto a Digital Space.

SUGGESTIONS FOR FURTHER STUDY

1. A study on the levels of digitalization of processes at other private sector banks in India and abroad can be carried out and a comparison can be made to understand the industry levels compared with KMBL and developing strategies accordingly, as it was not possible in this report due to time constraints.

2. Research and applicability of BlockChain, BigData Analytics, Smartphones and Artifical Intelligence and solutions in form of software or core banking systems can be explored for providing enhanced services to customers.

3. To study the effect of digitalization a peer comparison of either private and public or only private banks of impact on financial performance can be carried out for a comparative study. The effect of digitalization can be studied on various other financial ratios and can be carried out on customer satisfaction and other non-financial parameters for further study.

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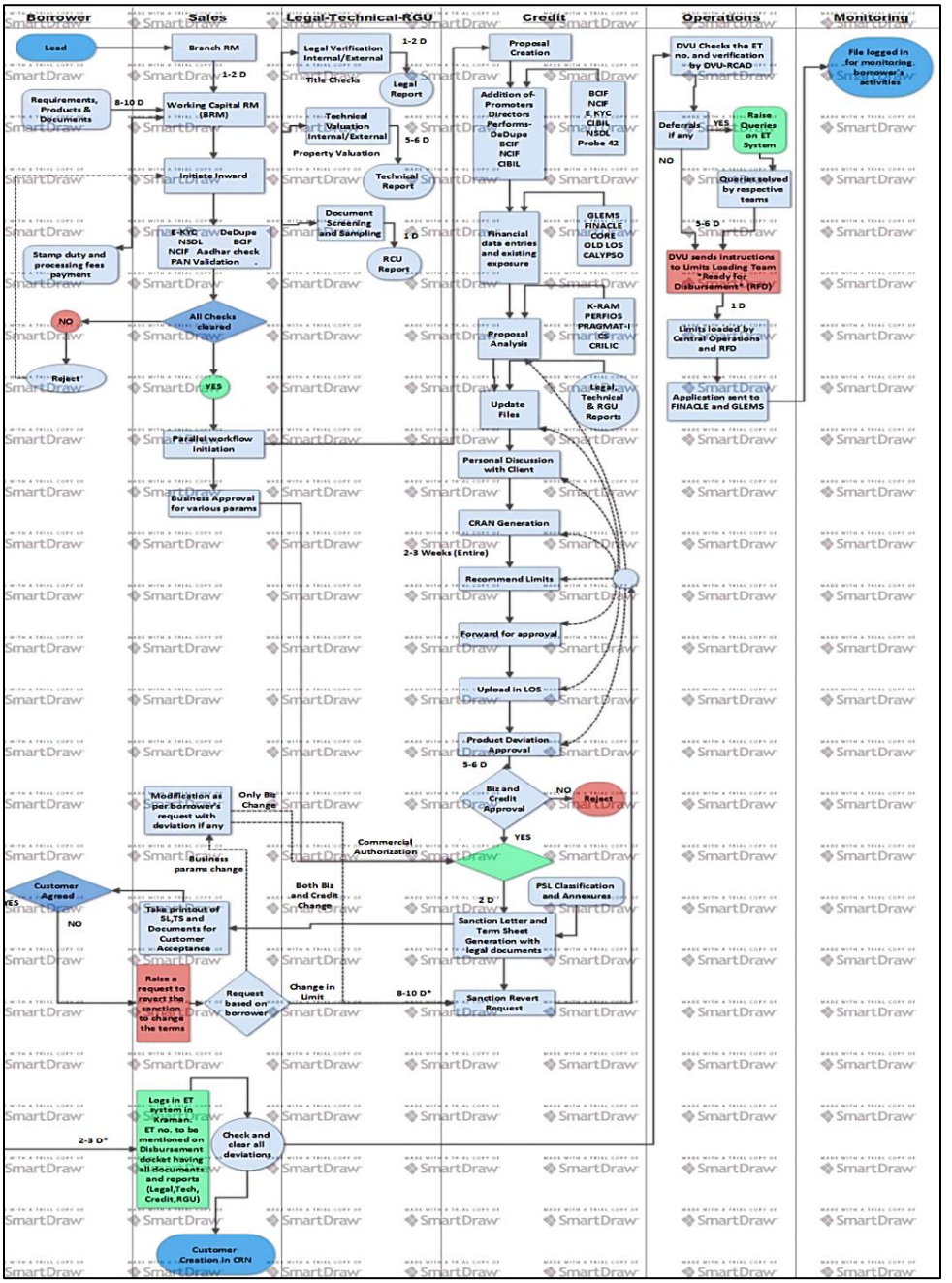
ANNEXURE

I. Working Capital Process Flow



II. Information to be captured by Branch RM

The following basic information should be captured by the Branch RM when the customer first approaches him instead of asking the WC RM to meet the customer again and capturing these details. This would facilitate faster processing of the loan and the bank can start analyzing whether the customer can be provided the funding and if he is eligible for the same.

SN	Information To Be Captured By The Branch Rm
1	Name of the borrower, age and his company type(private, public, partnership), history, date of incorporation.
2	Purpose of the loan.
3	Working Capital Finance facility required (type).
4	Amount of loan required.
5	Tenure of the loan.
6	Business profile including- details about the sector the business operates in, business model, the core business, net profit margins, revenue/turnover, working capital cycle days, partners, promoters, directors, Import/Export details if any.
7	Residential and office address proof.
8	Details about the collateral offered- Type (Residential/Commercial/Industrial), its value as per the customer.
9	CIBIL score.
10	Existing loan details if any including bank name(s).
11	Current A/c balance(s) and bank name(s).
12	Future business plans/ expansion plans.
13	ITR details.