An Analysis of Data-Driven Decision-Making Capabilities of Managers in Banks

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Sri Lanka

May 2018

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The dissertation was submitted to the Department of Computer Science and Engineering of the University of Moratuwa in partial fulfillment of the requirement for the Degree of Master of Business Administration in Information Technology.

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ABSTRACT

The vast volume of data generated by modern organizations could be used to gain a competitive advantage through the application of data analytics techniques. As such, many organizations are adopting data analytics and business intelligence tools with the aim of obtaining information more easily, gaining important insights, forecasting future events, and getting timely and reliable information to aid them in their decision making. While these tools are becoming mature, affordable, and easier to use, it is also important to understand whether the contemporary managers in these organizations are ready for Data-Driven Decision Making (DDDM). Therefore, it is imperative to understand to what extent the Decision Makers (DMs) are utilizing these data and tools, whether they can interpret the various forms of outputs from these tools, and gauge their ability to apply those insights to gain a competitive advantage. This study aims to answer these questions through a qualitative survey and a detailed analysis of several cases where such data analytics tools were used. This research uses Straussian's grounded theory as the tool to analyze and build the theory for this investigation. The analysis focused on commercial banks in Sri Lanka and interviewed DMs at branch and regional levels, and the CTO, CIO, and Head of IT of six banks. It was identified that in many occasions, the DMs' intuition overrules the DDDM due to uncertainty, lack of trust, knowledge, and the unwillingness towards risk-taking. It was also found that while experienced DMs prefer intuition-based decision-making, novice DMs are more adept at DDDM. Moreover, it was identified that quality of visualizations and presentations had a significant impact on the use of intuition by overruling DDDM. Subsequently, a set of recommendations are provided on the adoption of BI tools and on overcoming the struggles faced while performing DDDM.

Keywords: Data-Driven Decision Making; Decision Makers; Data Literacy; Business Intelligence Tools

ACKNOWLEDGEMENT

I wish to express my sincere gratitude to all those who helped me in successfully completing my study on "An Analysis of Data-Driven Decision-Making Capabilities of Managers in Banks".

First and foremost, I wish to thank my research supervisor Dr. Dilum Bandara, Senior Lecturer of the Department of Computer Science and Engineering, University of Moratuwa, for the continuous support, encouragement, and attention extended to me in realizing my research objectives.

I wish to convey my special gratitude to the respondents of the banks who spared their precious time and shared their valuable insights in making this research a reality. Furthermore, I extend my earnest thanks to the MBA research coordinators, Dr. Chandana Gamage and Ms. Jeeva Padmini, for the guidance and resources provided in making this study a success.

Finally, I wish to convey my heartfelt thanks to all those who helped me in their own ways during this entire journey.

TABLE OF CONTENTS

DECLARATION	1
COPYRIGHT STATEMENT	II
Abstract	III
ACKNOWLEDGEMENT	IV
TABLE OF CONTENTS	V
LIST OF FIGURES	VII
LIST OF ABBREVIATIONS	IX
1. INTRODUCTION	1
1.1. Background	1
1.2. Motivation	2
1.3. Outline	
2. LITERATURE REVIEW	
2.1. Data-Driven Decision Making	5
2.1.1. Data-driven decision-making approaches and process	6
2.1.2. Components of Data-Driven Decision Making	
2.1.3. Building analytical capabilities in decision makers	11
2.1.4. Improving technology and data quality for DDDM practice	
2.2. Data Analytics	
2.2.1. Emergence of Business Analytics (BA) for DDDM	15
2.2.2. Visual Analytics	15
2.2.3. Analytical gap	16
2.3. Data-driven decision makers	
2.3.1. Decision makers characteristics	18
2.3.2. Factors that reduce discomfort in data interpretation	23
2.3.3. Framework to build analytical capabilities	24
2.3.4. Critical factors in developing skills for analytical capability	25
2.3.5. Measuring the DDDM ability of decision makers	26
2.4. Cultural impact and developing DDD based culture	
2.5. DDDM in Banking domain	29
2.6. Summary	30
3. RESEARCH PROBLEM FORMULATION	32
3.1. Problem Statement	
3.2. Research Objectives	
3.3. Research Significance	33

3.4.	Sui	nmary	34
4. RE	SEAR	CH METHODOLOGY	35
4.1.	Res	search Method and Approach	35
4.2.	Pre	figured factors	36
4.3.	The	coretical and population sampling	38
4.4.	Da	a collection	39
4.5.	Inte	erview questions	40
4.6.	Da	a analysis using grounded theory	41
4.7.	Ge	nerating a theory	41
4.8.	Sui	nmary	42
5. DA	ATA.	ANALYSIS	43
5.1.	Da	a Preparation for Analysis	43
5.2.	Da	a Analysis	44
5.2	2.1.	Decision makers competencies	45
5.2	2.2.	Socio-demographic characteristics	49
5.2	2.3.	Personal characteristics	51
5.2	2.4.	Data literacy of decision makers	54
5.2	2.5.	Individual and team culture of DDDM	62
5.3.	Sui	nmary	63
6. RE	ECON	MMENDATIONS AND CONCLUSION	65
6.1.	Co	nclusions	65
6.2.	Ob	servations, Findings, and recommendations	70
6.3.	Fra	mework to develop DDDM ability and practice DDDM	73
6.4.	Res	search Limitations	74
6.5.	Fut	ure Work	75
Refere	ENCES		76
Appeni	oix A	: QUESTIONNAIRE INSTRUMENT	80
APPENI	oix B	: QUESTIONNAIRE INSTRUMENT – REVISED	83
Appeni	DIX C	: SELECTION OF FACTORS	85
A DDENII	uv D	· MEMO SUIDDODTIVE STATEMENTS EOD VEV EINDINGS	86

LIST OF FIGURES

Figure 2: 1 DDDM process with decision makers' involvement.	
Figure 2: 2 Characteristics influencing a DM to perform DDDM	23
Figure 2: 3 A model to building analytical capabilities	26
Figure 4: 1 Research methodology	36
Figure 4: 2 Model of population sampling for the study representing Sri Lankan banks	39
Figure 5: 1 Dimensions related to DMs experience	46
Figure 5: 2 Dimensions related to DMs perception on DDDM	48
Figure 5: 3 Dimensions related to DMs socio-demographic characteristics	51
Figure 5: 4 Dimensions related to DMs personal characteristics	52
Figure 5: 5 Dimensions related to DMs data literacy	57
Figure 6: 1 Proposed framework to adopt, practice and influence DDDM	75

LIST OF TABLES

Table 2: 1 Key factors to identify a DDDM	20
Table 4: 1 Dependent, moderating and independent factors	37
Table 4: 2 Derivation of Independent factors through open and axial coding	37
Table 5: 1 Profiles of interviewed DMs	44
Table 5: 2 Open and axial coding for DMs experience	47
Table 5: 3 Open and axial coding for DMs perception on DDDM	49
Table 5: 4 Open and axial coding for DMs Socio - demographic characteristics	51
Table 5: 5 Open and axial coding for DMs personal characteristics	54
Table 5: 6 DMs willingness to change the cognitive style and most preferred DM method	55
Table 5: 7 Open and axial coding for DMs data literacy	58
Table 5: 8 Comparison of DMs and CTO's / CIO's or head of IT's opinions	60
Table 5: 9 open coding for the least impacting factors	63
Table 6: 1 Observation made during the study	71
Table 6: 2 Findings from the study	72
Table 6: 3 Deriving recommendations based on observations and findings	73
Table 6: 3 Recommendations from the study	74

LIST OF ABBREVIATIONS

AI Artificial Intelligence

BA Business Analytics

BI Business Intelligence

DDD Data Driven Decisions

DDDM Data Driven Decision Making

DM Decision Maker

DMs Decision Makers

IT Information Technology

ML Machine Learning

PR Pattern Recognition

Stat Statistical Method

STEM Science, Technology, Engineering, and Mathematic