## Managerial Dilemmas in Developing Countries

## Managerial Dilemmas in Developing Countries:

Business, Marketing, Finance and Tourism

Edited by

Mohamed Aslam, Malcolm J.M. Cooper, Athula Gnanapala and Thilini Gamage

Cambridge Scholars Publishing



Managerial Dilemmas in Developing Countries: Business, Marketing, Finance and Tourism

Edited by Mohamed Aslam, Malcolm J.M. Cooper, Athula Gnanapala and Thilini Gamage

This book first published 2019

Cambridge Scholars Publishing

Lady Stephenson Library, Newcastle upon Tyne, NE6 2PA, UK

British Library Cataloguing in Publication Data A catalogue record for this book is available from the British Library

Copyright © 2019 by Mohamed Aslam, Malcolm J.M. Cooper, Athula Gnanapala, Thilini Gamage and contributors

All rights for this book reserved. No part of this book may be reproduced, stored in a retrieval system, or transmitted, in any form or by any means, electronic, mechanical, photocopying, recording or otherwise, without the prior permission of the copyright owner.

ISBN (10): 1-5275-3031-0 ISBN (13): 978-1-5275-3031-7

## TABLE OF CONTENTS

List of Tables ix
List of Figuresxi
Preface xii
Part I: Organisational Development
Chapter One
Factors Affecting the Use of e-Learning Systems by the Banking Assistants of Hatton National Bank in the Southwestern Region A. A. K. Gayani, K. L. B. G. Dharmarathne
Chapter Two
Management Information Systems for Effective Decision Making on the Total Cost of Quality
K.A.P. Mekhala, H.C. Munasinghe, A.N. Abeygunawardena, V. Puvana, R. K. D. Darshana, K. U. S. Somarathna
Chapter Three
Chapter Four
Part II: Human Resource Management
Chapter Five

Chapter Six
Chapter Seven
Chapter Eight
Chapter Nine
Chapter Ten
Chapter Eleven
Part III: Marketing and Consumer Behaviour
Chapter Twelve

Managerial	Dilemmas	in I	Devel	oning	Coun	tries
Manageriai	Diffillias	111 1		oping	Coun	uic

vii

Chapter Thirteen
Chapter Fourteen
Chapter Fifteen
Part IV: Financial Management
Chapter Sixteen
Chapter Seventeen
Chapter Eighteen
Chapter Nineteen
Part V: Tourism
Chapter Twenty

Chapter Twenty-One	62
The Behavioral Characteristics of Female Solo Travellers in Sri Lanka	
M. P. D. R. S. Senevirathne, W. K. A. C. Gnanapala	
Chapter Twenty-Two2	76
Community Participation in the Tourism Decision Making Process:	
A Case Study of Arugambay, Sri Lanka	
C. N. R. Wijesundara	
Chapter Twenty-Three	91
mpacts of Unplanned Development on Tourist Satisfaction:	
Negombo, Sri Lanka	
K. M. R. Charika, W. K. A. C. Gnanapala	
ndex 3	06

## LIST OF TABLES

Table 1.1 Model Summary	8
Table 1.2 Regression Analysis Coefficient	
Table 4.1 Composition of the Sample	
Table 4.2 ANOVA Test	
Table 5.1 Evaluation of human resource administration	55
Table 5.2 Comparison between personnel and human resource	
management	57
Table 5.3 Pre-selection observational data collection	61
Table 5.4 On-boarding observational data collection	62
Table 5.5 Employee/ Organisational Development observational	
data collection	
Table 5.6 Results of semi-structured interview conducted by Alpha	64
Table 5.7 Results of semi-structured interviews conducted by Beta	
with HR officers during his career	64
Table 6.1 International Standard Ratio	78
Table 7.1 VIF values of Independent variables	88
Table 7.2 Coefficient and P value	89
Table 7.3 Model Summary	89
Table 7.4 Coefficient and P value	90
Table 8.1 Model Summary	
Table 8.2 ANOVA	
Table 8.3 Coefficients	100
Table 10.1 Pilot Survey Results	
Table 10.2 Results of the Correlation Analysis	120
Table 10.3 Regression Output through the backward elimination	
method	121
Table 10.4 Coefficient of Determination	
Table 10.5 Analysis of Variance (ANOVA)	
Table 11.1 Types of Psychological Contracts	
Table 11.2 Correlation results for relationship between psychological	
contracts and employee outcomes	
Table 11.3 Correlation results for Employer and Employee obligation	IS
and employee outcomes	134
Table 11.4 Psychological contract breaches in relational contracts	136
Table 12.1 Summary of the calculated Statistics	148

Table 12.2 One Sample t-Test One-Sample Test	149
Table 13.1 Reliability Statistics	157
Table 13.2 Model Summary	158
Table 13.3 Coefficient Table	159
Table 14.1 Attribute and level for conjoint analysis	169
Table 14.2 Conjoint analysis correlations	170
Table 14.3 Conjoint analysis results	171
Table 14.4 Predicted preferences	172
Table 14.5 Preference Probabilities of the Simulations	
Table 15.1 Cinnamon cultivated land areas	184
Table 15.2 Annual income from cinnamon for the cultivators	185
Table 15.3 Chi square test results for factors affecting value adding	
of cinnamon crops	185
Table 15.4 Chi square tests of the association between socio-economic	
status of middlemen and value adding for cinnamon products	190
Table 15.5 Chi square tests value between socio-economic status	
of consumers and the factors affecting the purchase of cinnamon	
based products	192
Table 15.6 Rankings of Cinnamon based products	193
Table 16.1 The Short and Long-run effects of financial development	
Table 16.2 Speed of adjustments for individual countries	203
Table 17.1 Coefficient estimates for channel effects	
Table 18.1 Coefficient estimates for Institutional Effects	226
Table 19.1 AAR for overall portfolio level	240
Table 20.1 Analysis of the Data	
Table 20.2 The Correlation Coefficient Matrix	
Table 20.3 Model Summary	258
Table 21.1 Travel Motives of Female Solo Travellers	
Table 21.2 Correlation Table	272
Table 21.3 Coefficient Table	272
Table 22.1 Normative typologies of community participation	280
Table 22.2 Mean ranking of statements which represent community	
participation in the decision-making process	284
Table 23.1 Travel related Characteristics of the Tourists	
Table 23.2 Variables and Indicators	
Table 23.3 The Correlation Matrix	301
Table 23.4 Model Summary	301

## LIST OF FIGURES

Figure 1.1 Conceptual Framework of the Study	7
Figure 2.1 The Juran trilogy diagram	
Figure 2.2 Model for optimum quality cost	19
Figure 2.3 Relative Distribution of Quality Costs	
Figure 2.4 Example Multiple-Period Trend Graph: Individual Quality	
Cost Categories	21
Figure 2.5 Decision chart for identifying COQ activities and assigning	
to appropriate cost categories	
Figure 3.1 The Phases of BPS	
Figure 4.1 Expected Efficiency Level and Achieved Efficiency Level	41
Figure 5.1 HR Research framework	60
Figure 6.1 Conceptual Framework of the study	71
Figure 7.1 Conceptual framework	87
Figure 10.1 The Conceptual Framework	119
Figure 11.1 Framework for psychological contract and the employmen	t
relationship	131
Figure 12.1 Conceptual Framework	147
Figure 12.2 Graphical Presentation of BC/GDP Ratios for the Period	
2005-2014	149
Figure 12.3 Total Credit allocated to the Major Sectors of the	
Economy	150
Figure 13.1 Conceptual framework of the study	156
Figure 14.1 Most suitable choice card	174
Figure 15.1 Relationship Map of the Cinnamon Value Chain	187
Figure 15.2 Activity Map of the Cinnamon Value Chain	188
Figure 19.1 Conceptual Framework	234
Figure 19.2 Overall Behaviour of CAAR on Rights Issue	
Announcements	241
Figure 20.1 Conceptual Framework	255

#### **PREFACE**

This book is published using selected research papers from the 1st Intradisciplinary Conference of Management Researchers 2017 (1st ICMR 2017). Recognizing the significance and inevitability of lobbying the critical managerial issues and challenges in developing countries related to organizations, human resource, consumers, finance and tourism and hospitality, the editors decided to compile the contributions of researchers from different geographical settings into this book. It includes articles containing empirical evidence gathered through surveys, in-depth interviews, covert and open observation and contextual analysis. Considering their coherence and similarity the chapters in the book are clustered into five parts: organizational changes and development, human resources management, marketing and consumer behaviour, financial management, and tourism and hospitality management. Overall, the book has twenty-three chapters dealing with various managerial dilemmas related information technology, business reengineering, the manpower utilization process, consumer behavioural aspects and marketing performances, mitigating financial challenges, and anticipating desires and expectations in the emerging tourism and hospitality industry. As contributors for the books are from different disciplines and backgrounds, we believe that this approach enriches the book for the readers.

The first part of the book consists of studies of organizational changes and development that include in the first chapter by A.A.K. Gayania and K.L.B.G Dharmarathne, a study on the factors affecting the use of elearning systems by the banking assistants of the Hatton National Bank with special reference to the South-Western region in Sri Lanka. In chapter two K.A.P. Mekhala, H.C. Munasinghe, A.N. Abeygunawardena, V. Puvana, R.K.D. Darshana and K.U.S. Somarathna examine management information systems for effective decision making in relation to the total cost of quality. Chapter three is contributed by Lasitha Devendra and Upul Sonnadara and covers reengineering academic institutional standards. N. A. P. Pubudika, Manori P. Kovilage in chapter four analyse the factors affecting failure to achieve the expected sewing efficiency level in the Sri

Lankan garment industry; with special reference to Brandix Apparel Solutions in Wathupitiwala, Sri Lanka.

The second part of the book is focused on human resource management. In chapter five, the changing role of human resources and its business relevance are analysed by Asadullah Khan and Sanath Karunagoda, K.A.K. Nanayakkara and M.S.M. Aslam in chapter six investigate the impact of organizational downsizing on manpower retention: a case study of the Eden Resort & Spa, Beruwala. Chapter seven deals with the impact of work-life balance on employee work performance in the hotel industry of Sri Lanka and is contributed by D.S. De Seram and W.K. Athula C. Gnanapala. A study on the impact of fair treatment and working environments on organizational commitment is contributed by I.A. Ekanayake and K.R.M.C. Thilakarathne in chapter eight. In chapter nine R. S. Hewage and A. A. M. D Amarasinghe analyse the effect of job satisfaction and job stress on perceived job performance of insurance agents in Sri Lanka. The impact of the big five personality traits on employee job involvement in Brandix Apparel Solutions Limited-Intimate Apparel, Walisara, is discussed by W. B. S. M. Wijesingha and A. C. Jayatilake in chapter ten. Chapter eleven is a study of the relationship between psychological contract and employment by S. H. A. K. Nandasiri, D. C. Wijayasekara and P. Sivashankar.

Part three of the book incorporates empirical studies relating to marketing and aspects of consumer behaviour. Chapter twelve is a study of bank interest rate reduction and its impact on the channelling of funds in Sri Lanka by A. M. M. P. K. Alweera. In chapter thirteen V. Muthusamy and K.D.U.D. Fernando analyse the factors that affect cross selling of dwelling houses and personal accident insurance for private motor car policyholders in Sri Lanka. In chapter fourteen W.P.S. Wijesinghe P. Sivashankar and S.H.P. Malkanthi contribute a study of consumer willingness to pay for organic food in Colombo Municipal Council, using evidence from a conjoint analysis study. A study of the cinnamon value chain in the Galle district of Sri Lanka is contributed by S. H. P. Malkanthi and A. A. C. Krishani in chapter fifteen.

The fourth part of the book incorporates studies related to dilemmas in the financial management of organizations in developing countries. In chapter sixteen R. S. Hewage and T. U. I. Peiris analyse the effect of financial development on economic growth, giving evidence from South Asian countries. T.U.I. Peiris contributes a study on foreign direct investment and endogenous growth, again with evidence from South Asian countries, in chapter seventeen. Chapter eighteen also includes an investigation by T. U.

xiv Preface

I. Peiris on the effect of institutional excellence on stock market development. D. G. Dharmarathna then investigates the stock price reaction to right issue announcements and information efficiency in the Colombo Stock Exchange (CSE) in chapter nineteen.

The fifth part of the book presents research articles related to empirical investigations in tourism and hospitality management at destinations, sites and resorts throughout Sri Lanka. Hiran Dinusha and W. K. Athula C. Gnanapala provide an analysis of the interpretation ability of tourist guides and the impact of this on tourists' satisfaction in round tours in chapter twenty. In chapter twenty-one M.P.D.R.S Senevirathnea and W. K. Athula C. Gnanapala investigate the behavioural characteristics of solo female travellers in Sri Lanka. Then Namal Wijesundara contributes an empirical essay on community participation in tourism decision making process through a case study of Arugam Bay, Sri Lanka in chapter twenty-two. Finally, in chapter twenty-three the impact of unplanned development on tourist satisfaction is investigated, with special reference to Negombo, Sri Lanka, by Ruvini Charika and W. K. Athula C. Gnanapala.

Given that the 1st ICMR 2017 at the Faculty of Management Studies of Sabaragamuwa University of Sri Lanka was the entryway to compile this book with fascinating and informative research papers from diverse geographical settings and different academic backgrounds, It is a pleasure to acknowledge the Faculty of Management Studies, Sabaragamuwa University of Sri Lanka, the main organizer of the conference and conference sponsor, the Lanka Electricity Company as a platinum sponsor, and the Insurance Association of Sri Lanka and CEG Education Holdings as gold sponsors. Also, the editors express our sincere thanks to all the contributors of the book

M.S.M. Aslam Malcolm Cooper Athula Gnanapala Thilini Gamage

## PART I: ORGANISATIONAL DEVELOPMENT

#### CHAPTER ONE

# FACTORS AFFECTING THE USE OF E-LEARNING SYSTEMS BY THE BANKING ASSISTANTS OF HATTON NATIONAL BANK IN THE SOUTHWESTERN REGION

A. A. K. GAYANI
SABARAGAMUWA UNIVERSITY OF SRI LANKA
K. L. B. G. DHARMARATHNE
SABARAGAMUWA UNIVERSITY OF SRI LANKA

#### **Abstract**

E-learning is an emerging new paradigm of learning and training in workplaces which creates a platform for learners to learn wherever they are, and without time constraints. This study is aimed at understanding the elearning system of Hatton National Bank PLC (HNB PLC), one of the wellestablished, island-wide, commercial banks in Sri Lanka. The objective of the study was to find out the factors that affect the use of e-learning systems by banking associates, and the study was carried out at the Hatton Nation Bank offices in the Southwestern Region. The model was developed using the factors of social influence, perceived support, perceived self-efficacy and computer anxiety that affect the behavioural intention to use e-learning systems. The population of 84 banking associates gave their responses to a survey questionnaire. The survey data were analysed using inferential statistics such as Pearson's Product Moment Correlation, and Multiple Regression analysis. The major finding of the study revealed that perceived selfefficacy has a greater impact on the usage of e-learning systems, and is a factor relating to the individual rather than the group. In contrast, one of the strong predictors of social influence was rejected, since the p-value was insignificant. Perceived support, however, showed a positive relationship, and computer anxiety indicated a high negative relationship with behavioural

intention. The observed model proposes significant predictors which influence the e-learning system of Hatton National Bank PLC.

**Keywords:** Usage of e-learning, social influence, perceived support, perceived self-efficacy, computer anxiety, behavioural intention

#### Introduction

As a vertical market, where adoption of innovative technology is central to its growth, up-skilling of employees in the banking sector is of utmost importance. The fast-changing technological and social environments have overburdened the shoulders of employees in organisations (Zafar, Zahra, and Zia 2014). Workplace learning is an important means of employees' continuous learning, and e-learning is being recognized as a supportive practice for learning at work. In this case, e-learning is increasingly being used by organisations as an emergent approach for enhancing the skills of knowledge workers (Cheng et al. 2011). The effective usage of e-learning is required to cater to, and to satisfy, the requirements of organisations, and offers the benefits of cost-effectiveness, delivery-efficiency, self-management of learning, on-demand training, and time/place-free availability to employees (Welsh, Wanberg, Brown, and Simmering 2003). Hence, e-learning has been introduced by HNB Bank PLC as an approach to self-learning.

#### Research Problem

There is a lack of empirical studies of the acceptance and use of technology conducted on the implementation of e-learning in the workplace. Venkatesh and Davis (2000) explained that despite impressive advances in hardware and software capabilities, the troubling problem of underutilized systems continues. Misalignment has been found to exist between the organisational environment and technology-supported learning activities such as knowledge capture and sharing in the workplace (Cheng et al. 2011). In fact, employee behaviour in e-learning is not as expected, hence the weak focus on self-learning, technological and physiological factors which has been identified by researchers. DeRouin, Fritzsche and Salas (2005) recommended that researchers begin measuring the behavioural and organisational outcomes of e-learning.

This chapter analyses the data from a study of the HNB PLC using descriptive statistics concerning the dimensions of perceived ease of use, and perceived usefulness and behavioural intentions. Here the exploration fo-

cussed on the fact that most banking assistants have a low tendency to interact with e-learning, compared to junior executives, executives, and senior executives. With respect to this, a preliminary study of their usage details and descriptive statistics found that the e-learning engagement of banking assistants is low. The researchers identify the factors that impact on the lower usage of e-learning systems among the banking assistants of HNB Bank PLC in the South-Western region of Sri Lanka.

#### **Objectives of the Study**

The objectives of the research were as follows:

- 1. To identify the impact of social influence on behavioural intention;
- 2. To identify the impact of perceived support on behavioural intention;
- 3. To identify the impact between perceived self-efficacy and behavioural intention; and
- 4. To identify the impact between computer anxiety and behavioural intention.

#### Literature Review

The information-rich era of today creates the value of learning as a quest, it enhances learner's skills, knowledge and attitude. As cited in Falconer (2006), organisational learning was first introduced by March and Simon in their early work on organisations. Employees engage with learning in all the hierarchical levels of an organisation for their survival in a competitive working environment today. In the banking industry, organisational learning polishes the quality of customer service, while adding value to the employees. The learning organisation theorists viewed e-learning as a form of organisational learning, and the potential of e-learning as a tool for workplace learning can only be exploited within an appropriate work and learning culture and environment (Tynjala and Hakkinen 2005).

The importance of workplace learning as an effective way for employees to acquire knowledge and skills for individual competence development, as well as for organisational effectiveness, has been widely recognized (Doornbos, Simons, and Denessen 2008). Falconer (2006) stresses that transformation of tacit knowledge to explicit knowledge, and its diffusion amongst, and across, groups, can be effectively facilitated by IT in general, and e-learning techniques specifically. While various definitions metaphor e-learning, Kelly and Bauer (2004) view e-learning as a web-based learning tool that utilises web-based communication, collaboration, knowledge

transfer, and training, to benefit individuals and organisations. Accordingly, this study views e-learning as a technological way of uplifting employees' skills, knowledge and attitudes, irrespective of where they are available.

When increasing e-learning in organisations, it is fundamental to evaluate its effectiveness. Previous theories and models of the adoption and diffusion of IT/IS and UTAUT facilitate the examination of user intentions to use an information system, and their consequent usage behaviour (Dwivedi et al. 2011). For Davis (1989) a user's behavioural intention is defined as "a measure of the strength of one's intention to perform a specified behaviour." In fact, intention to use is an attitude, whereas use is a behaviour (Ong and La 2006). Behavioural intention is therefore considered as the most influential predictor of behaviour (Sheppard, Hartwick, and Warshaw 1988), and is found to be the dependent variable in evaluating the use of e-learning. Thus, this study concludes that behavioural intention is the response variable that explains the gaps found in the use of this technique.

The variables weighted highly in the workplace, several being seen to influence individual's behaviour. The literature defines social influence as follows: SI as one of the extrinsic motivators could influence employees' attitudes towards e-learning as an intrinsic motivation (Roca and Gagné 2008), thus the SI model of technology proposed by Fulk, Schmitz, and Steinfield (1990) states that group members' or supervisors' attitudes toward technology affect individuals' perceptions of its usefulness. In this case, employee education levels may also influence e-learning usage.

Perceived support can urge potential users to use e-learning, enhancing users' intention to use, regardless of their gender, age, previous usage experience, or working experience (Cheng et al. 2011). Hence, the impact on behavioural intention is considerable, according to Cheng et al. (2012). This construct is measured with three dimensions; managerial support, job support and organisational support (Tang et al. 2014).

In the e-learning context, an individual's behavioural characteristics are significant, hence the success of behavioural intention is also based on individual commitment. The existing body of knowledge reveals that personal factors play important roles in either adopting or rejecting e-learning (Yu, Chen, Yang, Wang, and Yen 2006). According to research in Taiwan, the most critical factor which positively affects learners' satisfaction toward e-learning is perceived self-efficacy. This result indicates that learners' self-efficacy is an important factor that influences e-learning usage (Liaw 2008). Employees with high autonomy should be able to arrange time for e-learning more easily (Brown 2005). Recent years have witnessed in the literature a series of studies on the learner characteristics of perceived self-efficacy, which show that these have a strong influence on behavioural intention. In

this study, the relationship of behavioural intention and perceived self-efficacy is described in accordance with the theory of planned behaviour which is a strong player within UTAUT.

Although computers are widespread, the human interaction with them for learning purposes is doubtful. Colquitt, Lepine, and Noe (2000) explain that computer anxiety is a determiner of individual computer engagement. Moreover, the higher the anxiety aroused, the more task performance decreases (Kanfer and Heggestad, as cited in Sun et al. 2007). Therefore, a negative impact of computer anxiety on behavioural intention is observed.

#### Methodology

The researchers tested these theories by specifying narrow hypotheses, and the survey used a cross-sectional study. The study uses the positivist approach to justify the hypothesis designed to prove the relationship between behavioural intention and e-learning. The HNB bank was the setting for the study. The South-Western Region consists of 21 branches. Primary data was used for the study and collected through structured questionnaires distributed among 108 respondents. Moreover, the researchers used secondary data from 'employee details, May 2015' when determining the sample size and propositions. The sampling method used in the research was stratified Random Sampling, a probability sampling method.

#### **Conceptual Framework**

The conceptual framework for this study connects the causal relationships within the independent variables to the dependent variable (Figure 1.1). Data analysis was performed by testing regression analysis to measure the acceptance of the proposed model, the research hypotheses and the research objectives. The hypotheses were tested at the confidence level of 95%. Cronbach's Alpha values of constructs that indicate sufficient level of reliability were 0.786 for all the constructs. Thus, the validity coefficient of 0.781 exceeds 0.5, and this indicates a high level of sampling adequacy in the instrument used.

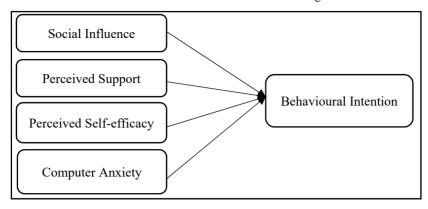


Figure 1.1 Conceptual Framework of the Study Source: (Developed by reviewing the existing literature by the researcher)

#### **Data Analysis**

#### **Correlation Analysis**

The relationship between the independent and dependent variables is estimated by applying correlation bivariate analysis. The conceptual model indicates positive relationships (Pearson r) for constructs apart from computer anxiety. We found a weak positive correlation between social influence and behavioural intention (r = 0.346, p = 0.000). Perceived support and perceived self-efficacy indicate strong positive correlations with behavioural intention. This is statistically significant (p = 0.000), and thus there is not enough evidence to reject  $H_0$ . The computer anxiety construct signifies a high degree of negative correlation (r = -0.702, p = 0.000) towards behavioural intention. In fact, when computer anxiety increases, it negatively impacts on behavioural intention.

#### **Regression Coefficients**

The regression analysis was performed by the researchers using the stepwise method, to determine the best fit model that reflects the impact of the independent construct on behavioural intention (Table 1.1).

R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin- Watson	
.922a	.851	.845	.30617	2.215	

**Table 1.1 Model Summary** 

There is a strong positive relationship between the independent variables and the dependent variable (r=0.922) with respect to model no. 3. Therefore, behavioural intention is explained by its high degree of positive relationships with perceived support, perceived self-efficacy, and its high degree of negative impact with computer anxiety. The dependent variable is explained 85.1% by the independent variables. There is only 14.9% of the impact resulting from any variables not included in this analysis.

The adjusted  $R^2$  shows a better fit compared to the  $R^2$  coefficient of 84.5% which is adjusted based on the residuals. The Standard Error is relatively small value (.30617), close to zero, and indicates the high validity of the model. The significance of the overall model was checked using ANOVA and the P-value was 0.000 which is less than 0.05, and F=151.735.  $H_1$  is accepted since there is enough evidence to reject  $H_0$ . Therefore, the analysis of variance is significant. When considering Collinearity statistics, the tolerance level of the independent variables exceeded 0.2, denoting a lesser relationship within the independent variable as per Table 1.2. This is also indicated by the VIF indicators, as the findings are lower than 10.

Model	Unstandardized Coefficients		Standardized Coefficients	Т	Sig.	Colline Statis	
	В	Std. Er- ror	Beta			Toler- ance	VIF
Constant	.795	.423		1.880	.064		
PS	.389	.098	.273	3.984	.000	.397	2.522
PSE	.651	.087	.555	7.500	.000	.341	2.934
CA	149	.044	192	-3.384	.001	.578	1.729

The independent variable of social influence had a statistical significance of p = 0.216. However, social influence is insignificant, as it exceeds the criteria of p < 0.050, hence  $H_0$  is accepted. As per the model indicated in Table 2, perceived support and perceived self-efficacy are positive coef-

ficients, with values respectively of 0.389 and 0.651. When perceived support increases by one unit, behavioural intention is enhanced by 0.389. The regression equation is a statistical platform to infer the sample findings to the total population, and was identified by justifying assumptions and model adequacy:

$$BI = 0.795 + 0.389_{(PS)} + 0.651_{(PSE)} - 0.149_{(CA)}$$

#### **Results and Discussion**

UTAUT is derived by summarising eight models which impact on behavioural intention in a variety of ways, as per existing literature. It indicates that the respondents to this study need a change in the e-learning system, in accordance with their attitude. It indirectly says that banking assistants in the South-Western region are not satisfied with the current e-learning system. Though the literature indicates a higher tendency to be accepted, there is a significant percentage of assistants who do not use any such material. This indicates that there is less involvement in e-learning in HNB Bank PLC.

According to the existing body of knowledge, social influence is accepted with a strong correlation in South Korea (Yoo et al. 2012), Mexico (Terzis, Moridis, Economides, and Mendez 2013), Belgium (Pynoo et al. 2011), and Taiwan (Wang et al. 2007), but, it is rejected by the South-Western region of HNB Bank PLC in Sri Lanka. Nevertheless, Wang, Wu and Wang (2009) found that social influence impacts positively on behavioural intention and is a significant determinant of this.

Simultaneously, the predictor variable of perceived support indicates a strong positive relationship with the behavioural intention to use e-learning. The predictor variable of perceived support showed a strong correlation with lower impact, and was designated as a significant variable in our conceptual model with respect to the South-Western Region of HNB Bank PLC. This indicates that if management support, job support, and organisational support increase in HNB Bank PLC, the greater the positive outcome that can be gained from e-learning.

The current study found a 0.889 strong degree of correlation between perceived self-efficacy and behavioural intention. The findings of Armitage and Conner (2001) suggested that perceived self-efficacy is a useful predictor of intention and behaviour. In the current context it was found to be a strong determinant. The coefficient of regression ( $\beta$ ) denotes 0.651, a high level of impact at the 95% confidence level, and is statistically significant (p-value = 0.000). Therefore, the researchers conclude that perceived self-

efficacy is indicated significantly in the research context of HNB Bank PLC in the South-Western region. Finally, a high degree of negative correlation with computer anxiety (-0.702) was found in this study. A high level of computer anxiety has been negatively related to learning computer skills (Barbeite and Weiss 2004). Therefore, the researchers found that reducing the level of computer anxiety is crucial.

As per the findings of the study, there is an 84.5% agreement coefficient of determination for the developed conceptual model. It therefore demonstrates a high level of significance. The predictor variables explain 84.5% of the dependent variable. Thus, the study has identified the factors that impact on the behavioural intention to use e-learning in the HNB Bank PLC in the South-Western region of Sri Lanka.

#### **Conclusions**

E-learning in the workplace context is an emerging trend in Sri Lanka in the context of modelling, retaining, enhancing, and training for employee skills. The study discussed in this chapter was conducted to identify why HNB Bank PLC, South-Western region, shows less engagement with elearning. According to the study, HNB Bank PLC employees require more pervasive impact from the organisation to enhance the usage of e-learning systems. In the perspective of HNB Bank PLC, organisational support, managers' consideration, and job support, can be identified as influencing indicators. In fact, using e-learning is deemed as supplementary, and designed to enhance employee knowledge in general. Therefore, if there is a lack of employee and managers' consideration directly related to the e-learning system, this will be important. Thus, to gain the commitment of banking assistants, the motivation to use e-learning must be enhanced by focusing on job requirements.

Moreover, perceived self-efficacy is deemed to have a positive impact relevance to the learners' viewpoint. Employee attitude is the key determinant factor in enhancing behavioural intention. In this case, the employee has the responsibility of enhancing the quality of service, and their motivation must be uplifted to maintain quality. Moreover, to reduce computer anxiety, the organisation must focus on its e-learning system. However, the materials used for disseminating knowledge as articles may bore readers. Thus, user-friendly materials need to be more focused, since banking assistants use computers daily. Therefore, the researchers conclude that e-learning is an imperative for HNB Bank PLC, to enable it to cater for the updating of its information needs. Thus, more consideration is required from the organisation and employees to enhance their behavioural intention to use e-

learning systems in HNB Bank PLC, South-Western Region.

#### References

- Armitage, C. J., and M. Conner. 2001. "Efficacy of the Theory of Planned Behaviour: A meta-analytic review." *Social Psychology* 40: 471–499.
- Barbeite, F. G., and E. M. Weiss. 2004. "Computer Self-efficacy and Anxiety Scales for an Internet Sample: Testing Measurement Equivalence of Existing Measures and Development of New Scales." *Computers in Human Behaviour* 20: 1–15.
- Brown, K. G. 2005. "A Field Study of Employee E-learning Activity and Outcomes." *Human Resource Development Quarterly* 16(4): 465-480. doi: 10.1002/hrdq.1151
- Cheng, B., M. Wang, S. J. H. Yang, and J. Peng. 2011. "Acceptance of competency-based workplace e-learning systems: Effects of individual and peer learning support." *Computers and Education* 57(1): 1317–1333.
- Colquitt, J. A., J. A. Lepine, and R. A. Noe. 2000. "Toward an Integrative Theory of Training Motivation: A Meta-Analytic Path Analysis of 20 Years of Research." *Journal of Applied Psychology* 85(5): 678–707.
- Davis, F. D. 1989. "Perceived Usefulness, Perceived Ease of Use, and User Acceptance of Information Technology." *MIS Quarterly* 13(3): 319–340.
- DeRouin, R. E., B. A. Fritzsche, and E. Salas. 2005. "E-Learning in organisations." *Journal of Management* 31(6): 920–940.
- Doornbos, A. J., R. Simons, and E. Denessen. 2008. "Relations between Characteristics of Workplace Practices and Types of Informal Work-Related Learning: A Survey Study among Dutch Police." *Human Resource Development Quarterly* 19(2): 155-170.
- Dwivedi, Y. K., N. P. Rana1, H. Chen, and M. D. Williams. 2011. "A Metaanalysis of the Unified Theory of Acceptance and Use of Technology (UTAUT)." *Governance and Sustainability in IS* 366: 155–170.
- Fulk, J., J. Schmitz, and C. W. Steinfield. 1990. A Social Influence Model of Technology Use, Organisations and Communication Technology. Newbury Park, CA: Sage.
- Harun, M. H. 2002. "Integrating E-learning into the workplace." *Internet and Higher Education* 4: 301–310.
- Kanfer, R., and E. D. Heggestad. 1997. "Motivational Traits and Skills: A Person-centered Approach to work motivation." *Organisational Behaviour* 19: 1–56.
- Kelly, T., and D. Bauer. 2004. "Managing intellectual capital via e-learning

- at Cisco." *In Handbook on Knowledge Management: Knowledge directions*, edited by C. Holsapple, 511–532. Berlin, Germany: Springer.
- Liaw, S. 2008. "Investigating students' perceived satisfaction, behavioural intention, and effectiveness of e-learning: A case study of the Blackboard system." *Computers in Human Behaviour* 51: 864–873.
- Ong, C., and J. Lai. 2006. "Gender differences in perceptions and relationships among dominants of e-learning acceptance." *Computers in Human Behaviour* 22: 816–829.
- Pynoo, B., P. Devolder, J. Tondeur, J. Braak, J. Van, W. Duyck, and P. Duyck. 2011. "Predicting secondary school teachers' acceptance and use of a digital learning environment: A cross-sectional study." *Computers in Human Behaviour* 27: 568–575.
- Roca, J. C., and M. Gagne. 2008. "Understanding e-learning continuance intention in the workplace: A self-determination theory perspective." *Computers in Human Behaviour* 24: 1585–1604.
- Sheppard, B. H., J. Hartwick, and P. R. Warshaw. 1988. "The theory of reasoned action: a meta-analysis of past research with recommendations for modifications and future research." *Journal of Consumer Research* 15(3): 325-343.
- Sun, P., R. J. Tsai, G. Finger, Y. Chen, and D. Yeh. 2007. "What drives successful e-Learning? An empirical investigation of the critical factors influencing learner satisfaction." *Computers and Education*. http://doi.org/10.1016/j.compedu.2006.11.007
- Tang, L.L., C. H. Hsu, and O. C. Kiet. 2014. "Acceptance of web-based elearning systems: Behavioural intention and impacts." *International Journal of Innovation in Management* 2(1): 37–52.
- Terzis, V., C. N. Moridis, A. A. Economides, and G. R. Mendez. 2013. "Computer Based Assessment Acceptance: A Cross-cultural Study in Greece and Mexico." *Educational Technology and Society* 16(3): 411–424.
- Tynjala, P., and P. Hakkinen. 2005. "E-learning at work: theoretical underpinnings and pedagogical challenges." *The Journal of Workplace Learning* 17(5/6): 318–336.
- Venkatesh, V., and F. D. Davis. 2000. "A Theoretical Extension of the Technology Acceptance Model: Four Longitudinal Field Studies." *Management Science* 46(2): 186–204.
- Wang, Y., M. Wu, and H. Wang. 2009. "Investigating the determinants and age and gender differences in the acceptance of mobile learning." *British Journal of Educational Technology* 40(1): 92–119.
- Welsh, E., C. Wanberg, K. Brown, and M. Simmering. 2003. "E-learning: emerging uses, empirical results and future directions." *International*

- Journal of Training and Development 7(4): 245-58.
- Yoo, S. J., S. Han, and W. Huang. 2012. "The roles of intrinsic motivators and extrinsic motivators in promoting e-learning in the workplace: A case from South Korea." *Computers in Human Behaviour* 28(3): 942–950
- Yu, S., I. Chen, K. Yang, T. Wang, and L-L Yen. 2006. "A feasibility study on the adoption of e-learning for public health nurse continuing education in Taiwan." *Nurse Education Today*.
- Zafar, A., N. Zahra, and Y. A. Zia. 2014. "Antecedents of Job Burnout among Bank Employees." *Humanities and Social Sciences* 21(2): 13–24.

#### CHAPTER TWO

### MANAGEMENT INFORMATION SYSTEMS FOR EFFECTIVE DECISION MAKING ON THE TOTAL COST OF QUALITY

K.A.P. MEKHALA
UNIVERSITY OF MORATUWA, SRI LANKA
H.C. MUNASINGHE
UNIVERSITY OF MORATUWA, SRI LANKA
A.N. ABEYGUNAWARDENA
UNIVERSITY OF MORATUWA, SRI LANKA
V. PUVANA
UNIVERSITY OF MORATUWA, SRI LANKA
R. K. D. DARSHANA
UNIVERSITY OF MORATUWA, SRI LANKA
K. U. S. SOMARATHNA
UNIVERSITY OF MORATUWA, SRI LANKA

#### **Abstract**

Manufacturing organisations are continuously affected by chronic waste and hidden quality costs, resulting in the increased total cost of quality and reduced profitability. However, the existing remedial systems only focus on sporadic waste and visible quality costs, and fail to capture a real picture of the total cost of quality. Therefore, the severity of issues is often unidentified by organisations, and no preventive actions are triggered for continuous improvement. This chapter focuses on developing a reliable quality costing system for knitted fabric manufacturing organisations, in which all dimen-

sions of prevention, appraisal, internal and external failure costs are encompassed, and the achievement of an organisation's quality objectives and long-term success through proper identification, monitoring, analysis, and reporting of quality costs is captured, thereby facilitating management decision making to understand the 'total cost of quality'. The comprehensive literature survey provided here depicts the nature of chronic and sporadic waste, distinguishes between visible and hidden costs, categorizes cost elements, analyses quality costs, reveals the real impact of quality costs on organisational performance, and identifies the strategy for managing the total cost of quality. Initially, a detailed process study was conducted to identify all the cost elements, categorize their impact, and to define the method of quantifying such cost elements. Collected quality cost data was analysed, and the impact of cost of quality (CoQ) on organisational performance was identified. Finally, a Microsoft Excel-based system was developed to produce useful management information, which includes cost distributions, trend analysis of cost categories, and key cost elements, highest cost elements, and a monthly cost of quality report.

**Keywords:** Chronic waste, hidden costs, quality costing, total cost of quality.

#### Introduction

In a globally competitive market, manufacturers are forced to design and manufacture highly reliable and quality products with competitive pricing to fulfil customer expectations. To achieve this objective, robust and reliable quality management systems should be in place (Gryna 2001, 11). Money is the common language of the top management of a company. If financial figures on quality costs could be generated, information on major quality failures, the financial significance of quality failures, areas of poor performance and possible opportunities for quality improvement would be communicated to top management efficiently and effectively (Juran 1999, 8.2). Therefore, when assigning monetary values to quality issues, it is important to emphasize the severity of the issues. Inefficient quality management systems will have a negative impact on organisational objectives and lead to additional cost of quality, while strategically-designed quality management systems, focusing on customer satisfaction, reduced cost and increased profit, will overcome global competition, attract business opportunities, and ensure long-term business success.

Sri Lankan knitted fabric manufacturing organisations are affected by chronic waste and hidden quality costs in their manufacturing processes, leading to higher total cost of quality and reduced profitability. Companies are worried about the high number of customer complaints, internal process inefficiencies, and failures, caused by the lapses of existing quality management systems (QMS), which deprive them from achieving their organisation's quality objectives. To improve quality, an organisation must understand the costs associated with this criterion, since the objective of continuous improvement programs is not only to meet customer requirements, but also to do so at the lowest possible cost. This can only be achieved by systematically managing the costs needed to achieve quality, and as well as identifying and eliminating non-conformance. The reduction of these costs is only possible if they are identified and measured (Vaxevanidis 2009).

However, insignificant emphasis is given to 'chronic waste' and 'hidden quality costs' within the textile industry. Existing QMSs have failed to quantify such chronic waste, as most of the organisations have no proper mechanisms to capture such quality costs (Plunkett 1999). Therefore, the severity of the situation is unidentified, and not known by companies. Hence, the initiation of preventive action to improve the current situation will never be triggered, and companies will continue to experience the repercussions of poor customer satisfaction and internal process inefficiencies, which are reflected in the form of increased 'total cost of quality', and reduced profitability. The identification, monitoring, analysis, reporting, and facilitating management knowledge of the cost of quality, chronic waste, and hidden costs, will be an opportunity for significant quality improvement in knitted fabric manufacturing organisations. Therefore, the need for a proper quality costing system, enabling effective decision making, is strongly felt when seeking to ensure continuous quality improvement. Hence, the research project reported on in this chapter was aimed at developing a reliable quality costing system, to facilitate the management decision-making process of a knitted fabric manufacturing organisation, to ensure quality improvement through proper identification, monitoring, analysis, reporting, and thereby facilitate management of CoQ, leading to a reduction in the total cost of quality.

#### Literature Review

The cost of poor quality can be defined as the financial loss caused by non-conforming products, services, and processes whose quality objectives are unattained. The total cost of quality is the cost incurred to ensure customer satisfaction by means of providing products and services with required level of quality (Gryna 2001, 19). Total CoQ is the sum of the total of the cost of non-conformance (CONC) and the cost of conformance