Impact of Work-Life Balance on Career Advancement of Female Software Quality Assurance Engineers

Kandabadage Iroshi Dilanjani Madunika Hewavitharar	Kandabadage	Iroshi Dilar	ijani Madunika	Hewavitharan
--	-------------	--------------	----------------	--------------

199112B

Degree of Master of Business Administration in Information Technology

Department of Computer Science and Engineering

University of Moratuwa

Sri Lanka

June 2021

Impact of Work-Life Balance on Career Advancement of Female Software Quality Assurance Engineers

Kandabadage Iroshi Dilanjani Madunika Hewavitharana

199112B

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.

Department of Computer Science and Engineering

University of Moratuwa

Sri Lanka

June 2021

DECLARATION

I declare that this is my work and this thesis does not incorporate without acknowledgment any material previously submitted for a Degree or Diploma in any other University or institute of higher learning and to the best of my knowledge and belief it does not contain any material previously published or written by another person except where the acknowledgment is made in the text.

Also, I hereby grant to the University of Moratuwa the non-exclusive right to reproduce and distribute my thesis/dissertation, in whole or in part in print, electronic, or another medium. I retain the right to use this content in whole or part in future works (such as articles or books).

UOM Verified Signature

K.I.D.M Hewavitharana	
(Signature of the candidate)	Date:18/06/2021
The above candidate has researched for the Masters' the	esis under my supervision.
Dr.Dulani Meedeniya	Date
Signature of the Supervisor	
(Co-supervisor Name)	Date
Signature of the Co-Supervisor	

COPYRIGHT STATEMENT

I hereby grant the University of Moratuwa the right to archive and to make available my thesis or dissertation in whole or part in the University Libraries in all forms of media, subject to the provisions of the current copyright act of Sri Lanka. I retain all proprietary rights, such as patent rights. I also retain the right to use in future works (such as articles or books) all or part of this thesis or dissertation.

Date:18/06/2021

UOM Verified Signature

(K.I.D.M.Hewavitharana)

ii

ABSTRACT

Work-life balance has traditionally been defined solely in terms of work and family obligations. Besides those two perceptions, many factors are affecting work-life balance where a person places a different value on the different factors depending on the sector in which they work. Better work-life balance enables employees to succeed in their careers.

The effect of work-life balance factors on the career advancement of female SQA employees in the Sri Lankan IT industry is investigated in this study. Factors affecting stability between work and life such as Organizational Support, Organizational Culture, and Career Aspiration, etc have been identified through the review of the literature.

An online survey was conducted with 357 female SQA employees who work in the IT industry in Sri Lanka. The data set is analyzed following a quantitative approach. Based on the findings, it can be concluded that organizational support, work arrangements, career aspiration, and family support all have a significant impact on female SQA employees' career advancement. A series of recommendations have been introduced to strengthen the work-life balance of female SQA workers, thus advancing their careers. The results of this study can be used by both employers and workers to achieve those strategies that have the most persuasive positioning in the hopes of achieving work-life balance and career advancement for female SQA employees.

Keywords – Organizational Support, Work-Arrangements, Organizational Culture, Career Aspiration, Self-Management, Family Support, Career Advancement, Work-Life Balance

ACKNOWLEDGEMENT

I would like to extend my deepest gratitude to all who assisted me in completing my research course in "Impact of Work-Life Balance on Career Advancement of Female Software Quality Assurance Engineers".

First and foremost I would like to extend my heartfelt gratitude to my supervisor, Dr. Dulani Meedeniya, Senior Lecturer in the Department of Science and Engineering, Moratuwa University, for her immense support, encouragement, and guidance which have been of great value to me in the completing of this research study. Also, my sincere gratitude is extending to Dr.Dilum Bandara for his insightful comments and encouragement.

I would also like to thank our Project Coordinator Dr. Adeesha Wijayasiri who has given me great support and guidance throughout this research to make it a success.

Also, I would like to extend my warm appreciation to the female software QA professionals being a rich source of information for this study. Without their inclusion, the study would not have been completed. Their cooperation in answering a long list of questions is respected.

I wish to acknowledge the support and great love of my family, my mother, my father, and my husband. They kept me going and this work would not have been possible without their inclusion. Lastly, I would like to extend my deepest gratitude to all the people who have helped me in so many ways in this research success.

TABLE OF CONTENTS

DECLARATION
COPYRIGHT STATEMENT
ABSTRACTII
ACKNOWLEDGEMENT
TABLE OF CONTENTS
List of Figures
LIST OF TABLESX
LIST OF ABBREVIATIONSXII
1. INTRODUCTION
1.1. Background
1.1.1. Motivation
1.1.2. Research Scope
1.2. Problem Statement
1.2.1. Research Objectives
1.2.2. Research Significance
2. LITERATURE REVIEW
2.1. Chapter Introduction
2.2. Background
2.2.1. IT industry in Sri Lanka
2.2.2. Women participation in the Sri Lankan IT industry
2.2.3. Challenges with female workforce
2.2.4. Work-Life Balance and Career Development of Female Employees 9
2.3. Factors affecting the Work-life Balance on Career Advancement
2.3.1. Working Hours
2.3.2. Organizational Support

	2.3.3.	Family Support	15
	2.3.4.	Career Aspiration	16
	2.3.5.	Networks	17
	2.3.6.	Culture	18
	2.3.7.	National Policies	19
2.4	4. Rel	ated works	21
2.5	5. Eva	luation of Related Work	28
2.0	6. Eva	luation Methods	29
	2.6.1.	Cronbach Alpha	29
	2.6.2.	Descriptive Analysis	29
	2.6.3.	Hypothesis Testing	29
	2.6.4.	Pearson Correlation	30
2.	7. Dis	cussion	31
	2.7.1.	Limitation in Existing Work and New Challenges	31
	2.7.2.	Future Research Directions	33
	2.1.2.		
3.		RCH METHODOLOGY	34
3.	RESEA	earch Approach	
	RESEA		34
3.2	RESEA	earch Approach	34 37
3.2	RESEAL 1. Res 2. Dat	earch Approacha Collection Method	34 37 37
3.2	RESEAL 1. Res 2. Dat 3.2.1. 3.2.2.	earch Approacha Collection Method	34 37 37
3.2 3.2	RESEAL 1. Res 2. Dat 3.2.1. 3.2.2.	earch Approach a Collection Method Primary Data Secondary Data	34 37 37 37
3.2 3.2	RESEAL 1. Res 2. Dat 3.2.1. 3.2.2. 3. San	earch Approach	34 37 37 37
3.2	RESEAL 1. Res 2. Dat 3.2.1. 3.2.2. 3. San 3.3.1.	earch Approach	34 37 37 37 38
3.2	RESEAL 1. Res 2. Dat 3.2.1. 3.2.2. 3. San 3.3.1. 3.3.2. 3.3.3.	earch Approach a Collection Method Primary Data Secondary Data nple Design Population Sample Size	34 37 37 37 38 38

	3.6.	Dat	a Acquisition	41
	3.6	.1.	Preliminary interview	41
	3.7.	Que	estionnaire Design	43
	3.7	.1.	Design Aspects	43
	3.7	.2.	Pilot Survey	44
	3.7	.3.	Reliability Analysis	44
	3.8.	Cor	nclusion	44
4	. DA	TA A	ANALYSIS	45
	4.1.	Pilo	ot Study	45
	4.2.	Dat	a Cleaning	45
	4.3.	Dat	a Collection	46
	4.4.	Rel	iability Analysis	46
	4.4	.1.	Organizational Support	47
	4.4	.2.	Work Arrangements	47
	4.4	.3.	Organizational Culture	48
	4.4	.4.	Career Aspirations	48
	4.4	.5.	Self-Management	49
	4.4	.6.	Family Support	49
	4.4	.7.	Work-Life Balance with Career Advancement	50
	4.4 Vai	.8. riable	Summary of Reliability Test for Independent Variable and Dependent Summary of Reliability Test for Independent Variable and Dependent Summary of Reliability Test for Independent Variable and Dependent Summary of Reliability Test for Independent Variable and Dependent Summary of Reliability Test for Independent Variable and Dependent Summary of Reliability Test for Independent Variable and Dependent Summary of Reliability Test for Independent Variable and Dependent Summary of Reliability Test for Independent Summary of Reliability Test for Independent Variable and Dependent Summary of Reliability Test for Independent Summary of Reliability Summary of Reliability Summary of Reliability Summary of Reliability Summary of	dent
	4.5.	Des	scriptive Statistic of Demographic Data	52
	4.5	.1.	Analysis of Demographic data using Charts	52
	4.5	.2.	Statistical Analysis of Demographic data	54
	An	alysis	s of the Relationship between Marital Status and WLB with CA	54
	46	Infe	erential Analysis	57

4.6	.1.	Correlation Analysis for Independent Variables	57
4.7.	Hyp	pothesis Testing	59
4.7	.1.	Organizational Support and WLB with CA	59
4.7	.2.	Work Arrangement and WLB with CA	60
4.7	.3.	Organizational Culture and WLB with CA	61
4.7	.4.	Career Aspiration and WLB with CA	62
4.7	.5.	Self-Management and WLB with CA	64
4.7	.6.	Family Support and WLB with CA	65
4.8.	Reg	gression Analysis	67
4.8	.1.	Significance of Organizational Support	67
4.8	.2.	Significance of Work Arrangements	68
4.8	.3.	Significance of Organizational Culture	70
4.8	.4.	Significance of Career Aspiration	71
4.8	.5.	Significance of Self-Management	73
4.8	.6.	Significance of Family Support	74
4.9.	Cor	nclusion	76
5. REC	COMM	IENDATIONS AND CONCLUSION	77
5.1.	Cha	pter Introduction	.77
5.2.	The	outcome of the Demographic Analysis	77
5.3.	Res	earch Implications	78
5.3	.1.	Hypothesis Testing for Organizational Support and WLB with CA	78
5.3	.2.	Hypothesis Testing for Work Arrangements and WLB with CA	79
5.3	.3.	Hypothesis Testing for Organizational Culture and WLB with CA	79
5.3	.4.	Hypothesis Testing for Career Aspiration and WLB with CA	80
5.3	.5.	Hypothesis Testing for Self-Management and WLB with CA	80
5.3	.6.	Hypothesis Testing for Family Support and WLB with CA	81

5.3	.7. Summary of Correlation Analysis	81
5.4.	Recommendations	83
5.5.	Research Limitations	90
5.6.	Future Research Direction	90
5.7.	Conclusion	91
Refere	NCES	92
APPEND	DIX	97
APPEND	DIX A	97
APPENE	DIX B: FINAL SURVEY	99
APPENE	DIX C: FINAL SURVEY RESULT SUMMARY	103
APPEND	DIX D: COMPANY LIST	106

LIST OF FIGURES

Figure 1: Factors Influence WLB Satisfaction	23
Figure 2: Influence of work duration on WLB	24
Figure 3: Influencing factors for female career progression	25
Figure 4: Factors affecting female Leadership.	26
Figure 5: Factors affecting work-life balance	27
Figure 6: Mapping Diagram	36
Figure 7: Gender Composition of the ICT workforce	38
Figure 8: Conceptual Framework	39
Figure 9: Time Stamp for Data Collection	46
Figure 10: Cronbach's Alpha	52
Figure 11: Marital Status	52
Figure 12: Age distribution	52
Figure 13: Experience	53
Figure 14: Educational Qualification	53
Figure 15: No of Dependents to care	54
Figure 16: Summary of Correlation Analysis	82

LIST OF TABLES

Table 1: Summary of Literature Sources	11
Table 2: Evaluation of Previous work	28
Table 3: Reliability Statistics for Organizational Support	47
Table 4: Reliability Statistics for Work Arrangements	47
Table 5: Reliability Statistics for organizational culture	48
Table 6: Reliability Statistics for career aspiration	48
Table 7: Reliability Statistics for Self-Management	49
Table 8: Reliability Statistics for family support	49
Table 9: Reliability for work-life balance with career advancement	50
Table 10: summary of reliability analysis	51
Table 11: Reliability for Overall Instrument	51
Table 12: Correlation between Age and Work-Life Balance with Career Advancer	ment
	55
Table 13: Correlation between Qualification and 'Work-Life Balance with Ca	areer
Advancement	56
Table 14: Correlation between Experience and Work-Life Balance with Ca	areer
Advancement.	56
Table 15: Correlation between No of Dependents and Work-Life Balance with Ca	areer
Advancement	57
Table 16: Correlation Matrix	58
Table 17: Organizational Support and WLB with CA	59
Table 18: Work Arrangement and WLB with CA	60
Table 19: Organizational Culture and WLB with CA	61
Table 20: Career Aspiration and WLB with CA	62
Table 21: Self-Management and WLB with CA	64
Table 22: Family Support and WLB with CA	65
Table 23: Summary of Hypothesis	66
Table 24: Model Summary for Organizational Support	67
Table 25: ANOVA for Organizational Support	
Tuelo 20. Th (O (TITO) Organizational Support	67

Table 27: Model Summary for Work Arrangements	68
Table 28: ANOVA for Work Arrangements	69
Table 29: Coefficient for Work Arrangements	69
Table 30: Model Summary for Organizational Culture	70
Table 31: ANOVA for Organizational Culture	70
Table 32: Coefficient for Organizational Culture	71
Table 33: Model Summary for Career Aspiration	71
Table 34: ANOVA for Career Aspiration	72
Table 35: Coefficient for Career Aspiration	72
Table 36: Model Summary for Self-Management	73
Table 37: ANOVA for Self-Management	73
Table 38: Coefficient for Self-Management	74
Table 39: Model Summary for Family Support	74
Table 40: ANOVA for Family Support	75
Table 41: Coefficient for Family Support	75

LIST OF ABBREVIATIONS

Abbreviation	Description
ICT	Information Communication Technology
IT	Information Technology
SQA	Software Quality Assurance
USA	United State of America
UK	United Kingdom
ICTA	Information Communication Technology Agency
SLASSCOM	Sri Lanka Association for Software Services Companies