UNIVERSITI TEKNOLOGI MARA

A CASE STUDY ON PLANNING POKER ACTIVITY: PROBLEMS AND FACTORS OF FAILURE TO DELIVER

FARIZA AHMAD FAUZI

Report submitted in partial fulfillment of the requirements for the degree of

Master of Science (Information Technology)

Faculty of Computer and Mathematical Sciences

January 2014

ABSTRACT

It has been almost three years ago when Exact Asia Development Center also known as Exact ADC started using Scrum as its system development methodology. A lot of systems and functionalities successfully delivered to the customers in a short period of time as well as high in quality to meet the market need nowadays where everything must be fast, reliable and agile enough to cater for the massive changes of technology. Intensive communication among product owners, stakeholders, and team members are the effective approach in gathering knowledge that help achieving business goals and facilitates business processes (Rich C. Lee, 2012). However, among these success stories, there are still some delayed and failed projects that cannot be delivered on time. To identify the cause of this matter, the investigation must start from the root, which is the effort estimation in planning phase. Thus, this paper discuss about the problems faced by the developers in Exact ADC when using planning poker as the effort estimation technique and also the factors that caused the failure in delivering the user stories.

ACKNOWLEDGEMENT

This research would not have been possible without the kind support and help of many individuals and organization. I would like to extend my sincere thanks to all of them. I would like to express my special appreciation and thanks to my supervisor, Pn. Rogayah Abdul Majid who have been a tremendous mentor for me. I would like to thank her for encouraging my research and providing priceless advices that help complete my research. Her willingness to give her time so generously has been very much appreciated. I wish to acknowledge the help provided by the member of Exact Asia Development Center for their kind co-operation in providing necessary information regarding the research and enabling me to observe their daily operations. Their support really helped in completion of this project.

A special thanks to my family. Words cannot express how grateful I am for all of the support and encouragement given throughout the study. My special thanks are extended to all of my friends who supported me in writing, and incented me to strive towards my goal. My thanks and appreciations also go to my colleague and people who have willingly helped me out with their abilities.

TABLE OF CONTENTS

			Page				
CTI	UDENT'S DECLARATION		i				
ABSTRACT			ii iii iv viii				
ACKNOWLEDGEMENT TABLE OF CONTENTS LIST OF FIGURES							
				LIS	T OF TABLES		ix
				СН	APTER 1: INTRODUCTION		
1.1	Introduction		. 1				
1.2	Research Background		4				
1.3	Problem Statement		4				
1.4	Aims		5				
1.5	Research Questions		5				
1.6	Research Objectives	*	5				
1.7	Scope of Study		6				
1.8	Research Significance	stern and gen	6				
1.9	Report Outline		7				
СН	APTER 2: LITERATURE REVIEW						
2.1	Introduction		8				
2.2	Software Development Methodology (SDM)		8				
	2.2.1 Agile methodology		9				
2.3	Scrum		10				
	2.3.1 Scrum team		10				
	2.3.2 Scrum artifacts		12				
	2.3.3 Scrum events		13				

2.3.4 Scrum processes	15
Implementation of Scrum Methodology in Software Development	
Planning Poker	17
2.5.1 Story point	18
The Fibonacci Numbers	18
Group Estimation versus Individual Estimation	19
Expert Estimation versus Non-expert Estimation	
Other Estimation Methods	21
Research Approach	25
2.10.1 Qualitative research approach	25
2.10.2 Quantitative research approach	26
2.11 Research Paradigm	
2.11.1 Positivism	27
2.11.2 Post-positivism	28
2.11.3 Critical theories	28
2.11.4 Constructivism	29
2.12 Research Design	
2.12.1 Phenomenology	29
2.12.2 Grounded theory	30
2.12.3 Ethnography	30
2.12.4 Case study	31
2.13 Data Analysis	
2.13.1 Taxonomic analysis	32
2.13.2 Narrative analysis	32
2.13.3 Content analysis	32
Psychological Concerns Related to Effort Estimation	33
Summary	35
APTER 3: METHODOLOGY	
Introduction	36
	36
3.2.1 Paradigmatic approach	37
	Implementation of Scrum Methodology in Software Development Planning Poker 2.5.1 Story point The Fibonacci Numbers Group Estimation versus Individual Estimation Expert Estimation versus Non-expert Estimation Other Estimation Methods Research Approach 2.10.1 Qualitative research approach 2.10.2 Quantitative research approach Research Paradigm 2.11.1 Positivism 2.11.2 Post-positivism 2.11.3 Critical theories 2.11.4 Constructivism Research Design 2.12.1 Phenomenology 2.12.2 Grounded theory 2.12.3 Ethnography 2.12.4 Case study Data Analysis 2.13.1 Taxonomic analysis 2.13.2 Narrative analysis 2.13.3 Content analysis Psychological Concerns Related to Effort Estimation Summary APTER 3: METHODOLOGY Introduction Research Approach