

CONTENTS

		Page
I	INTRODUCTION	1
1.1	Background of the Research	1
1.2	Statements of the Problem	4
1.3	Purpose of the Research	4
1.4	Significance of the Research	4
1.5	Layout of the Research	5
II	LITERATURE REVIEW AND CONCEPTUAL FRAMEWORK	6
2.1	Highlights of Previous Research	6
2.2	Introduction to Working Capital	8
2.2.1	The Role of Working Capital	9
2.2.2	The Scope of Working Capital	9
2.3	Introduction to Liquidity	9
2.3.1	The Source of Liquidity	10
2.3.2	Drags and Pulls of Liquidity	10
2.3.3	Evaluating Working Capital by Liquidity Ratios	10
2.3.2.1	Current Ratio	11
2.3.2.2	Quick Ratio	11

2.3.2.3	Number of Days for Receivables	12
2.3.2.4	Number of Days for Inventories	12
2.3.2.5	Number of Days for Payables	13
2.3.2.6	Operating Cycle and Net Operating Cycle	13
2.4	Managing the Cash Position	15
2.4.1	Establishing Minimum Cash Balance	15
2.4.1	Forecasting Short Term Cash Flows	16
2.4.2	The Cash Projection	16
2.5	Measuring Accounts Receivable Performance	17
2.5.1	Accounts Receivable Management and Aging Schedule	17
2.6	Customer Credit Scoring Model	18
2.7	Managing Accounts Payables	19
2.8	EPC Accounts based on International Accounting Standards 11	20
2.8.1	Contract Revenue	20
2.8.2	Contract Costs	20
2.8.3	Trade Receivables	21
2.8.4	Gross Amount due from Customer	21
2.8.5	Advances from Customer	21
2.8.6	Retention Money	22
2.9	Procedure of the Research	22
III	RESEARCH METHODOLOGY	25
3.1	Research Design	25
3.1.1	Research Classification	25
3.1.2	The Analytical Approach	25

3.1.3	Research Object	26
3.1.4	Limitations of Research	26
3.2	Data	26
3.2.1	Data Collection Methodology	27
3.2.2	Data Storage	28
3.2.3	Data Analysis	28
3.2.4	Summaries for Data, Source of Data, Methodology of Obtaining and the Results After the Data Processing	32
IV	ANALYSIS	35
4.1	The Business Profile	35
4.1.2	The Business Model	36
4.2	Working Capital Performance Review	37
4.2.1	Liquidity Ratio	38
4.2.2	Aging Schedule Analysis	41
4.3	Forecasting Income Statement and Balance Sheet	52
4.3.1	Calculating Probabilities of Accounts Collections	53
4.3.2	Projecting 2018 Income Statement	53
4.3.3	Projecting Balance Sheet and Liquidity Ratio of 2018	54
4.4	Describing CJR Working Capital Issues and Proposing Solutions	57
4.5	Formulating Solution	58
4.6	Customer Credit Scoring Model	59
4.7	Projecting Receivables	63

4.8	Payables Scoring Model Analysis	69
4.9	Minimum Cash Setup	73
4.10	The Projected Cash Outflow Schedule	76
4.10.1	Scheduling Payments for Payable	78
4.10.2	Projected Cash Flow Schedule and STI Schedule	82
4.10.3	Reviews and Applications of the Projected Cash Flows Schedule to CJR Iceberg Issue	84
4.11	Fabricating Working Capital Policies	88
4.11.1	Terms of Trade Policy	88
4.11.2	Cash Flow Schedule Policy	88
4.11.3	Miscellaneous Policies Related to Standard of Procedures	89
V	CONCLUSIONS	94

LIST OF TABLES

	Page	
Table 2.1	Cash Forecasting Plans Based on Norton, Parkinson and Drake's	16
Table 2.2	Example of Aging Schedule	18
Table 2.3	Norrton, Parkinson and Drake's Credit Scoring Model	18
Table 3.1	Components of the Cross Business Benchmark Table	28
Table 3.2	Example of Liquidity Measurement Table	30
Table 3.3	Data, Source of Data, Methods of Obtaining and Result	32
Table 4.1	CJR List of Exclusive Vendors	36
Table 4.2	Working Capital Benchmark Result Table 1	38
Table 4.3	Working Capital Benchmark Result Table 2	39
Table 4.4	Working Capital Benchmark Result Table 3	41
Table 4.5	The Aging Schedule for May 2018	42
Table 4.6	Collections and Rates for May 2018	43
Table 4.7	The Aging Schedule for June 2018	44
Table 4.8	Collections and Rated for June 2018	46
Table 4.9	The Aging Schedule for July 2018	47
Table 4.10	Collections and Rates for July 2018	48
Table 4.11	Tallied Collection Rate	51
Table 4.12	Bad debt potential for July 18 Active Trade Receivables, Based on 3 Months Historical Performance	53
Table 4.13	Forecasted Liquidity Ratio of 2018	55
Table 4.14	Summary for Customer Credit Scoring Model	60
Table 4.15	Receivable Date Collection Projections	64

Table 4.16	Reports for Cash Projection Based on Each Aging Group Collection Rate	68
Table 4.17	Reports for Cash Projection Based on Each Aging Group Collection Rate	71
Table 4.18	Shelton's Minimum Cash Setup Calculation	73
Table 4.19	Classic Minimum Cash Setup Calculation	74
Table 4.20	Miscellaneous Outflows Projection	77
Table 4.21	Cash Balance Table Calculations	78
Table 4.22	Payable Payment Sequence Projection	79
Table 4.23	Short Term Investment Plan: Invest	83
Table 4.24	Short Term Investment Plan: Draw	84
Table 4.25	Invoicing Process to do List	91
Table 6.1	Current Ratio Calculation	101
Table 6.2	Quick Ratio Calculation	103
Table 6.3	Number of Days for Receivables Calculation	107
Table 6.4	Number of Days for Inventory Calculations	108
Table 6.5	Number of Days for Payables	110
Table 6.6	Aging Schedule of May 2018	112
Table 6.7	Aging Schedule of June 2018	126
Table 6.8	Aging Schedule of July 2018	139
Table 6.9	Weight of Money for May 2018	151
Table 6.10	Weight of Money for June 2018	158
Table 6.11	Weight of Money for July 2018	165
Table 6.12	Summary of Collected Receivables for May 2018	170
Table 6.13	Rate of Collection for May 2018	171
Table 6.14	Summary of Collected Receivables for June 2018	172
Table 6.15	Rate of Collection for June 2018	173

Table 6.16	Summary of Collected Receivables for July 2018	174
Table 6.17	Rate of Collection for July 2018	175
Table 6.18	Details for Customer Credit Scoring Model	176
Table 6.19	Cash Projection Based on Each Aging Group Collection Rate	181
Table 6.20	Payable Scoring Table Part 1: Receivable Terms of Payments	183
Table 6.21	Payable Scoring Table Part 2: Payable Terms of Payments Informations and Analysis	186
Table 6.22	Payable Scoring Table Part 3: Rating Part 1	190
Table 6.23	Payable Scoring Table Part 4: Rating Part 2	196
Table 6.24	Payable Scoring Table Part 5: Rating Review	201
Table 6.25	The Projected Cash Flow Schedule AR Part 1	207
Table 6.26	The Projected Cash Flow Schedule AR Part 2	210
Table 6.27	The Projected Cash Flow Schedule AR Part 3	213
Table 6.28	The Projected Cash Flow Schedule AR Part 4	216
Table 6.29	The Projected Cash Flow Schedule AR Part 5	220
Table 6.30	The Projected Cash Flow Schedule AR Part 6	223
Table 6.31	The Projected Cash Flow Schedule AP Part 1	226
Table 6.32	The Projected Cash Flow Schedule AP Part 2	229
Table 6.33	The Projected Cash Flow Schedule AP Part 3	232

Table 6.34	The Projected Cash Flow Schedule AP Part 4	235
Table 6.35	The Projected Cash Flow Schedule AP Part 5	238
Table 6.36	The Projected Cash Flow Schedule AP Part 6	241
Table 6.37	The Projected Cash Flow Schedule for Miscellaneous Outflows Projection	244
Table 6.38	The Projected Cash Flow Scedule End of Days reports Week 1	246
Table 6.39	The Projected Cash Flow Scedule End of Days reports Week 2	247
Table 6.40	The Projected Cash Flow Scedule End of Days reports Week 3	248
Table 6.41	The Projected Cash Flow Scedule End of Days reports Week 4	249
Table 6.42	The Projected Cash Flow Scedule End of Days reports Week 5	250
Table 6.43	The Projected Cash Flow Scedule End of Days reports Week 6	251
Table 7.1	CJR Income Statemet 2017, 2016 and 2015	253
Table 7.2	CJR Balance Sheet 2017	254
Table 7.3	CJR Balance Sheet 2016	256
Table 7.4	CJR Balance Sheet 2015	258
Table 7.5	Overall Average Collction Days for Each Aging Group	260
Table 7.6	Review for Project Lateness	273
Table 7.7	Normality Testing Descriptive Table	277
Table 7.8	Normality Testing KolmogorovSirnov and Shapiro-Wilk Test	280
Table 7.9	Calculations of Standard Deviation for Projects of Jakarta and Surabaya	284
Table 7.10	Aging Schedule Terms and Rules of Color	286

Table 7.11	Example of Aging Schedule Phase 1	287
Table 7.12	Example of Aging Schedule Phase 2	289
Table 7.13	Example of Aging Schedule Phase 3	291
Table 7.14	Example of Aging Schedule Phase 4	293
Table 7.15	Example of Aging Schedule Phase 5	296
Table 7.16	Highlighted Primary Data References for Working Capital	297
Table 7.17	Highlighted Primary Data References for Cash Flows	299
Table 7.18	Highlighted Primary Data References for Terms of Payments	301
Table 7.19	Highlighted Primary Data References for Receivables	302
Table 7.20	Primary Data Review	303
Table 7.21	External Analysis	305
Table 7.22	Projected Income Statement of 2018	307
Table 7.23	Projected Balance Sheet of 2018	309

LIST OF PICTURES

	Page
Figure 2.1 Preve and Allende's Working Capital Concept	8
Figure 2.2 Operating Cycle and Cash Conversion Cycle	13
Figure 2.3 Procedure of the Research	22
Figure 4.1 Weight of Money for May, June and July 2018	49
Figure 4.2 Weight of Receivables from Ongoing Projects	52
Figure 4.3 CJR Receivable Iceberg	57
Figure 4.4 Projected Cash Flows Schedule Structure	76
Figure 4.5 Benefits of Projected Cash Flows Schedule for CJR Issues	86
Figure 4.6 CJR Account Receivable Billing Process Diagram	90
Figure 7.1 Normality Histogram	279
Figure 7.2 Normality Q-Q Plot	281
Figure 7.3 Detrended Normality Q-Q Plot	282
Figure 7.4 Customer Credit Worthiness Scoring Model	311
Figure 7.5 Receivable Projection Model	312
Figure 7.6 Payable Priority Scoring Model Part 1	313
Figure 7.7 Payable Priority Scoring Model Part 2	314
Figure 7.8 Payable Priority Scoring Model Part 3	315
Figure 7.9 Projected Cash Flows Schedule Flowchart	316

LIST OF APPENDICES

		Page
I	APPENDIX I	101
6.1	Current Ratio Calculation	101
6.2	Quick Ratio Calculation	103
6.3	Number of Days for Receivable Calculation	107
6.4	Number of Days for Inventories Calculation	108
6.5	Number of Days for Payables Calculation	110
6.6	Aging Schedule of May 2018	112
6.7	Aging Schedule of June 2018	126
6.8	Aging Schedule of July 2018	139
6.9	Weight of Money for May 2018	151
6.10	Weight of Money for June 2018	158
6.11	Weight of Money for July 2018	165
6.12	Summary of Collected Receivables for May 2018	170
6.13	Rate of Collection for May 2018	171
6.14	Summary of Collected Receivables for June 2018	172
6.15	Rate of Collection for June 2018	173
6.16	Reports on Collected Receivable Accounts for July 2018	174
6.17	Summary on Collected Receivable Accounts for July 2018	175
6.18	Details for Customer Credit Scoring Model	176
6.19	Cash Projection Based on Each Aging Group Collection Rate	181

6.20	Payable Scoring Table Part 1: Receivable Terms of Payments	183
6.21	Payable Scoring Table Part 2: Payable Terms of Payments Informations and Analysis	186
6.22	Payable Scoring Table Part 3: Rating Part 1	190
6.23	Payable Scoring Table Part 4: Rating Part 2	196
6.24	Payable Scoring Table Part 5: Rating Review	201
6.25	The Projected Cash Flow Schedule AR Part 1	207
6.26	The Projected Cash Flow Schedule AR Part 2	210
6.27	The Projected Cash Flow Schedule AR Part 3	213
6.28	The Projected Cash Flow Schedule AR Part 4	216
6.29	The Projected Cash Flow Schedule AR Part 5	220
6.30	The Projected Cash Flow Schedule AR Part 6	223
6.31	The Projected Cash Flow Schedule AP Part 1	226
6.32	The Projected Cash Flow Schedule AP Part 2	229
6.33	The Projected Cash Flow Schedule AP Part 3	232
6.34	The Projected Cash Flow Schedule AP Part 4	235
6.35	The Projected Cash Flow Schedule AP Part 5	238
6.36	The Projected Cash Flow Schedule AP Part 6	241

6.37	The Projected Cash Flow Schedule for Miscellaneous Outflows Projection	244
6.38	The Projected Cash Flow Scedule End of Days reports Week 1	246
6.39	The Projected Cash Flow Scedule End of Days reports Week 2	247
6.40	The Projected Cash Flow Scedule End of Days reports Week 3	248
6.41	The Projected Cash Flow Scedule End of Days reports Week 4	249
6.42	The Projected Cash Flow Scedule End of Days reports Week 5	250
6.43	The Projected Cash Flow Scedule End of Days reports Week 6	251
II	APPENDIX II	252
7.1	CJR Annual Reports for 2017, 2016 and 2016	253
7.2	CJR Balance Sheet 2017	254
7.3	CJR Balance Sheet 2016	256
7.4	CJR Balance Sheet 2015	258
7.5	Overall Average Collction Days for Each Aging Group	260
7.6	Review for Project Lateness	273
7.7	Determining Minimum Cash Balance Normality Test: Descriptives Table	277
7.8	Determining Minimum Cash Balance Normality Test: Histogram	279
7.9	Determining Minimum Cash Balance Normality Test: Kolmogorov-Smirnov and Shapiro-Wilk Test	280
7.10	Determining Minimum Cash Balance Normality Test: Normal Q-Q Plot	281

7.11	Determining Minimum Cash Balance Normality Test: Normal Q-Q Plot	282
7.12	Calculations of Standard Deviations for Projects of Jakarta and Surabaya	283
7.13	Fabricating Account Receivables Aging Schedule	286
7.14	Highlighted Primary Data References for Working Capital	296
7.15	Highlighted Primary Data References for Cash Flows	297
7.16	Highlighted Primary Data References for Terms of Payments	299
7.17	Highlighted Primary Data References for Receivables	301
7.18	Primary Data Review	303
7.19	External Analysis	305
7.20	Projected Income Statement of 2018	307
7.21	Projected Balance Sheet of 2018	309
7.22	Customer Credit Worthiness Scoring Model	311
7.23	Receivable Projection Model	312
7.24	Payabe Priority Scoring Model Part 1	313
7.25	Payabe Priority Scoring Model Part 2	314
7.26	Payabe Priority Scoring Model Part 3	315
7.27	Projected Cash Flows Schedule Flowchart	316

