

UNIVERSITY OF SOUTHERN QUEENSLAND

**TOWARDS INTERNATIONAL COMPETENCE OF
INDONESIAN ACCOUNTING UNDERGRADUATES: A
SYSTEMS APPROACH TO IDENTIFY INTER-
CORRELATES BETWEEN CONSTRUCTS OF THE
EDUCATION PROCESS**

A Dissertation submitted by

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SUMMARY

Increasing capital influx from foreign direct investment and international financing assistance requires Indonesian accountants to follow international standards of practices. Therefore, the Indonesian Institute of Accountants have been converging Indonesian Accounting Standards with IFRS. International standards of accounting practice also require Indonesian universities to harmonise competencies of their accounting graduates with international education competencies. This harmonisation equips accounting graduates with competencies to compete in a global market, to support multi-national investors, and to implement new accounting standards.

Building International Competency of Accounting Graduates (ICAG) needs a comprehensive approach. Input-Process-Output approach from System Theory and Input-Environment-Output model are employed as underpinning theories. The study identifies relationships among educational constructs (Inputs, Processes/Environment, and Outputs). Inputs are students' and lecturers' characteristics (Psychological, Academic, and Demographic), Comfort of Class Size, and Learning Facilities. Student Engagement, ICAG-Teaching Contents, and Student-Faculty Engagement are employed to measure Processes/Environment, while ICAG and Grade Point Average (GPA) are used for educational outputs. Moreover, the study measures ICAG based on American Institute of Certified Public Accountants (AICPA) core competencies.

The population of the study is final-year accounting students and accounting lecturers at state universities in Indonesia. The study also recruits alumni of accounting programs working in various sectors. Eight state universities were randomly selected based on accounting program accreditation levels and locations. Questionnaires were employed to collect quantitative data from students and lecturers, whilst focus group discussion collected qualitative data from accounting graduates alumni. Four hundred and eleven students and 188 lecturers completed surveys and 20 alumni participated in focus group discussion. Descriptive, Correlation, Regression, Structural Equation Modelling, Path, Non-parametric, and Qualitative analyses were employed to analyse data.

Students reported that Student Motivation, Previous Academic Achievements, Comfort of Class Size, and Learning Facilities affect Student Engagement. In turn, Student Engagement also influences ICAG and GPA. Lecturers reported that Learning Facilities affect Lecturer Job Satisfaction and Lecturer Job Satisfaction, in turn; influences ICAG-Teaching Contents and Student-Faculty Engagement. ICAG-Teaching Contents correlates with ICAG and Student Engagement. Alumni perceived AICPA core competencies are in line with competencies required by the Indonesian business context. They contended that most competencies are developed in the work places. Input-Process-Output and Input-Environment-Output frameworks are applicable for developing ICAG and GPA in Higher Education. Supporting theories (Expectancy Theory, Herzberg's Motivation Theory, and Involvement Theory) are supported by the study. To improve ICAG and GPA, a university should pay more attention to Lecturer Job Satisfaction, Student Motivation, Student Previous Achievements, Learning Facilities, Comfort of Class Size, ICAG-Teaching Contents, and Student Engagement. Alumni suggested that Lecturers should bring more real-world accounting to classrooms.

Collecting competency data using questionnaire, the exclusion of Working-Integrated Learning from Student Engagement questionnaire, the exclusion of private universities and other types of higher education institutions, and the use of non-parametric analysis to correlate lecturers' and students' data are some main limitations of the study.

Government should use the Student Engagement Survey for improvement and benchmarking purposes. Further research is required to identify the impact of Working-Integrated Learning on ICAG, to design specific Student Engagement for accounting students, to measure students' competencies using other assessment techniques, to correlate lecturers' characteristics with ICAG and GPA using Hierarchical Linear Modelling analysis, and to find the impact of Comfort of Class Size, Entrance Tests, and Lecturers' Academic Characteristics on ICAG and GPA. Future studies should also include more alumni from various industries and universities.

CERTIFICATION OF DISSERTATION

I certify that the ideas, results, analyses, and conclusions reported in this dissertation are entirely my own effort, except where otherwise acknowledged. I also certify that the work is original and has not been previously submitted for any other award, except where otherwise acknowledged.

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TABLE OF CONTENTS

SUMMARY	ii
ACKNOWLEDGEMENT	v
TABLE OF CONTENTS	vi
LIST OF FIGURES	viii
LIST OF TABLES	ix
LIST OF PUBLICATIONS	xi
LIST OF ACRONYMS	xii
DEFINITION OF TERMS.....	xiii
CHAPTER 1: INTRODUCTION	1
1.1 Background	1
1.2 Research Objective.....	4
1.3 Research Questions	5
1.4 Brief Overview of Methodology	7
1.5 Expected Contributions of the Study.....	9
1.6 Scope and Delimitation	11
1.7 Structure of Dissertation.....	13
CHAPTER 2: LITERATURE REVIEW	15
2.1 Introduction	15
2.2 Accounting Education Context in Indonesia.....	17
2.3 Underpinning Theories.....	21
2.4 Education Input	29
2.5 Education Process	54
2.6 Education Output	79
2.7 Gap in the literature.....	88
2.8 Conclusion	90
CHAPTER 3: RESEARCH DESIGN	91
3.1 Introduction	91
3.2 Research Questions	91
3.3 Conceptual Model	98
3.4 Hypotheses	102
3.5 Conclusion	112

CHAPTER 4: RESEARCH METHODOLOGY	113
4.1 Introduction	113
4.2 Population	113
4.3 Sample Selection	117
4.4 Data Collection Method	119
4.5 Instrument Measurement.....	120
4.6 Instrument Validity and Reliability.....	124
4.7 Data Triangulation	127
4.8 Ethical Consideration	129
4.9 Data Analysis	131
4.10 Conclusion	138
CHAPTER 5: ANALYSES AND FINDINGS	140
5.1 Introduction	140
5.2 Sample Used in Empirical Test.....	141
5.3 Descriptive Statistics of Student Data.....	142
5.4 Correlation Analyses for Student Data	146
5.5 Structural Equation Modelling Analyses for Student Data.....	167
5.6 Descriptive Statistics of Lecturer Data	182
5.7 Correlation Analyses of Lecturer Data	189
5.8 Structural Equation Modelling (SEM) Analyses of Lecturer Data.....	205
5.9 Lecturer and Student Data Correlations.....	210
5.10 Qualitative Analysis for Triangulating ICAG.....	211
5.11 Hypotheses Testing Summary	235
5.12 Conclusion	242
CHAPTER 6: DISCUSSION AND CONCLUSIONS	243
6.1 Introduction	243
6.2 Discussions.....	243
6.3 Conclusions	279
6.4 Theoretical Implications.....	283
6.5 Practical Implications.....	284
6.6 Limitations	286
6.7 Directions of Future Research.....	288
LIST OF REFERENCES	291
APPENDICES	307

LIST OF FIGURES

Figure 2.1: Input-Transformation-Output Processes.....	23
Figure 2.2: Education Technical System	25
Figure 2.3: I-E-O Model	27
Figure 2.4: Bridging the Gap between Acquired and Required Skills.....	29
Figure 3.1: Conceptual Model Based on Students' Perceptions	99
Figure 3.2: Conceptual Model Based on Lecturer Perceptions.....	101
Figure 3.3: Overall Conceptual Model and Hypotheses	111
Figure 4.1: Model for Testing Mediating Effect.....	134
Figure 5.1: Student Motivation-Student Engagement-ICAG Sub-Model 1	151
Figure 5.2: Student Motivation-Student-Engagement-GPA Sub-Model 2	152
Figure 5.3: Previous Achievement-Student Engagement-ICAG Sub-Model 3 ..	155
Figure 5.4: Previous Achievement-Student Engagement-GPA Sub-Model 4....	156
Figure 5.5: NEM-Student Engagement-GPA Sub-Model 5	158
Figure 5.6: Comfort of Class Size-Student Engagement-ICAG Sub-Model 6...	165
Figure 5.7: Learning Facilities-Student Engagement-ICAG Sub-Model 7	166
Figure 5.8: Learning Facilities-Student Engagement-GPA Sub-Model 8	167
Figure 5.9: Input-Student Engagement-ICAG SEM Model 1	171
Figure 5.10: Input-Student Engagement-ICAG Path Model 2.....	174
Figure 5.11: Input-Student Engagement-GPA SEM Model 3	176
Figure 5.12: Input-Student Engagement-GPA Path Model 4	179
Figure 5.13: LJS-ICAG-Teaching Content-SFE Sub-Model 9.....	194
Figure 5.14: LF-ICAG-Teaching Content-SFE Sub-Model 10	203
Figure 5.15: Lecturer Model SEM 5	207
Figure 5.16: Lecturer Model Path 6	210
Figure 5.17: Rank of Functional Competency	217
Figure 5.18: Functional Competency Based on Lecturers' and Students' Perceptions	218
Figure 5.19: Rank of Personal Competency	225
Figure 5.20: Personal Competency Based on Lecturers' and Students' Perceptions	226
Figure 5.21: Rank of Broad-business Perspective Competency	232
Figure 5.22: Broad-business Perspective Competency Based on Lecturers' and Students' Perceptions.....	233
Figure 5.23: Hypotheses Summary on Developing ICAG.....	238
Figure 5.24: Hypotheses Summary on Developing GPA	239
Figure 5.25: Hypotheses Summary on Developing ICAG based on Lecturer Perception	240
Figure 5.26: Hypotheses Summary on Developing GPA based on Lecturer Perception	242
Figure 6.1: Revised Model with ICAG Output.....	277
Figure 6.2: Revised Model with GPA Output.....	278

LIST OF TABLES

Table 2.1: Comparison of Dimensions for Measuring Transforming Process in Higher Education	68
Table 2.2: Relationship between Student Engagement and Faculty Expectation and Behaviour	78
Table 2.3: Expected Skills/competencies of professional Managers	82
Table 2.4: Number of indicators of AICPA core competencies	85
Table 2.5: Comparison of Grading Systems in Selected Universities	87
Table 4.1: Accreditation Level and Number of Accounting Students	114
Table 4.2: Accreditation Level by Location	115
Table 4.3: Distribution of Sample by University	117
Table 4.4: Sources of Measures	123
Table 4.5: Validity and Reliability of ICAG Questions.....	126
Table 4.6: Validity and Reliability of Learning Facilities and Comfort of Class Size Questions	127
Table 4.7: Summary of Goodness of Fit Index	138
Table 5.1: Sample Distribution	141
Table 5.2: Descriptive Statistics of Student Data.....	142
Table 5.3: Correlation between Student Motivation and Student Engagement ..	147
Table 5.4: Correlation between Student Motivation and ICAG	148
Table 5.5: Correlation between Student Engagement and ICAG	149
Table 5.6: Correlations between Student Engagement, Motivation, and GPA...	152
Table 5.7: Correlation between Student Engagement, ICAG, and GPA	154
Table 5.8: Correlation between NEM, Student Engagement, ICAG, and GPA .	157
Table 5.9: Correlation between Other Academic Characteristics and Student Engagement, ICAG, and GPA	159
Table 5.10: Correlation between Age, Student Engagement, ICAG, and GPA..	161
Table 5.11: Correlation between Age and Other Student Characteristics	162
Table 5.12: Correlation between Gender and Student Engagement and Learning Outputs.....	162
Table 5.13: Correlation between Gender and Other Student Characteristics	163
Table 5.14: Correlation between Comfort of Class Size and Student Engagement and Learning Outputs.....	164
Table 5.15: Correlation between Learning Facilities and Student Engagement and Learning Outputs.....	166
Table 5.16: Input-Student Engagement-ICAG Goodness of Fit.....	170
Table 5.17: Regression Weight and Estimates for Input-SE-ICAG Model	172
Table 5.18: Regression Weight and Estimates for Input-SE-ICAG Using Path Analysis.....	173
Table 5.19: Input-Student Engagement-ICAG Goodness of Fit.....	174
Table 5.20: Regression Weight and Estimates for Input-Student Engagement-GPA Model Using Single Composite Indicator	177
Table 5.21: Input-Student Engagement-GPA Goodness of Fit Using Single Composite Indicator.....	177

Table 5.22: Regression Weight and Estimates for Input-Student Engagement-GPA Using Path Analysis.....	179
Table 5.23: Input-Student Engagement-GPA Goodness Fit Using Path Analysis.....	180
Table 5.24: Descriptive Statistics of Lecturer Data	183
Table 5.25: Correlation between Lecturer Job Satisfaction Factors and ICAG-Teaching Content	190
Table 5.26: Correlation between ICAG-Teaching Content and Student-Faculty Engagement	191
Table 5.27: Correlation between Lecturer Job Satisfaction and Student-Faculty Engagement	193
Table 5.28: Correlation between Lecturer Academic Characteristics and ICAG-Teaching Content	195
Table 5.29: Correlation between Lecturer Academic Characteristics and Student-Faculty Engagement	196
Table 5.30: Correlation among Lecturer Academic Characteristic Variables	197
Table 5.31: Correlation between Age and Student-Faculty Engagement, and ICAG-Teaching Content	198
Table 5.32: Correlation between Gender and Student-Faculty Engagement, and ICAG-Teaching Content	199
Table 5.33: Correlation between Age, Gender, and Lecturer Academic Characteristic.....	200
Table 5.34: Correlation between Learning Facilities and Student-Faculty Engagement, and ICAG-Teaching Content	202
Table 5.35: Correlation between Learning Facilities and Lecturer Job Satisfaction.....	204
Table 5.36: Correlation between Comfort of Class Size and Student-Faculty Engagement and ICAG-Teaching Content	205
Table 5.37: Regression Weight and Estimate for Model Using Single Composite Indicator	208
Table 5.38: Goodness Fit of Lecturer Model Using Single Composite Indicator	208
Table 5.39: Regression Weight and Estimate for Lecturer Model Using Path Analysis	209
Table 5.40: Goodness Fit for Lecturer Model Using Path Analysis	209
Table 5.41: Kendall's Tau Correlation	211
Table 5.42: FGD Participant's Profile	212
Table 5.43: Summary of Hypotheses	235

LIST OF PUBLICATIONS

Yanto, H, Mula, J.M & Kavanagh, M.H (2010) *A conceptual model for building international competencies of accounting graduates of Indonesian universities*. Presented at the 2010 Accounting & Finance Association of Australia and New Zealand Conference (AFAANZ 2010), 4-6 July 2010, Christchurch, New Zealand.

Yanto, H, Mula, J.M & Kavanagh, M.H (2011) *Does student engagement matter in building students' accounting competencies: Evidence from Indonesian universities*, Submitted to the Accounting Education: An International Journal.

Yanto, H, Mula, J.M, Kavanagh, M.H. (2011) *Developing student's accounting competencies using Astin's I-E-O model: An identification of key educational inputs based on Indonesian student perspectives* (Refereed Paper), the RMIT Accounting Educators' Conference, 2011.

LIST OF ACRONYMS

ACER	Australian Council for Educational Research
AGFI	Adjusted Goodness Fit Index
AICPA	American Institute of Certified Public Accountants
AUSSE	The Australasian Survey of Student Engagement
BAN-PT	The National Accreditation Body for Higher Education
BIHECC	Business, Industry and Higher Education Collaboration Council
CMIN	Chi-Square
FGD	Focus Group Discussion
GFI	Goodness of Fit
GPA	Grade Point Average
IAI	Ikatan Akuntan Indonesia (the Indonesian Institute of Accountants)
IAS	International Accounting Standards
ICAG	International Competencies of Accounting Graduate
I-E-O	Input-Environment-Outcome
IFRS	International Financial Reporting Standards
I-P-O	Input-Process-Output
MONE	Ministry of National Education (Kementrian pendidikan Nasional)
NEM	Nilai Evaluasi Murni (Grades of Nationally-tested Subject)
NFI	Normed Fit Index
NSSE	National Survey of Student Engagement
RMSEA	Root Mean Square Error of Approximation
SEM	Structural Equation Modeling

DEFINITION OF TERMS

Academic Challenge	One of Student Engagement dimensions measuring the intensity of student to engage in academic challenge activities.
AGFI	Adjusted Goodness Fit Index (AGFI) is used to measures model fit of proposed model using ratio degree of freedom for null model
Active Learning	One of Student Engagement dimensions that measure how much students actively engaged in active learning activities
Broad-business Perspective Competency	One International Competency of Accounting Graduate (ICAG) dimensions. This dimension relates to the context in which accounting professionals perform their service.
Broad-business Perspective Competency-Teaching Contents	This refers to how much lecturers include Broad-business Perspective Competency in their teaching-learning process.
Comfort of Class Size	Measures how much students feel comfortable with their class size.
Comfort of Class Size-Composite	Refers to composite data derived from three questions of Comfort of Class Size that have minimum factor loadings.
CFA	Confirmatory Factor Analysis. A statistical procedure to confirm observed variables in a latent construct (dimension).
CMIN	Chi-square is used to assess actual and predicted matrices.
Enriching Educational Experience	One of Student Engagement dimensions that measure how much students engage in enrichment activities.
Expectancy Theory	Expectancy Theory is a theory that measures motivation by including three perceptions of an individual (Expectancy, Instrumentality, Valence)
Functional Competency	Relates to the technical competencies, which are most closely aligned with the value contributed by accounting professionals.
Functional Competency-Teaching Content	Refers to how much lecturers include functional competency in their teaching-learning process.
FGD	Focus Group Discussion is a technique of collecting data by holding discussions with participants.
GFI	Goodness of Fit Index(Measuring the fit of the model to the whole covariance matrix)
HLM	Hierarchical Linear Modelling is a statistical

	technique to identify association between variables with nesting data. For example, the association between lecturers' education attainment with students' achievements.
HMT	Herzberg's Motivation Theory is commonly used to measure employee motivation and job satisfaction. In this study HMT is used to measure Lecturer Job Satisfaction (LJS)
ICAG	International Competency of Accounting Graduates. ICAG consists of three dimensions i.e. Functional Competency, Personal Competency, and Broad-business Perspective Competency. ICAG are derived from AICPA core competencies.
ICAGC	International Competency of Accounting Graduate Composite. This refers to composite data derived from all questions of ICAG that have minimum validity (factor loading).
ICAG-Teaching Content	This construct measure how much lecturers include ICAG in their teaching-learning process.
Lecturer Academic Characteristics	Refers to academic traits that lecturers possess such as Education Attainment, Lecturer Appointment, research Productivity, Articles Published, Book Published, Work Experience, and so forth.
Learning Facilities	This construct measure how much a university provides learning facilities (library, laboratory, and computer) for teaching and learning purposes.
Learning Facilities-Composite	This refers to composite data that derived from questions of Learning Facilities that have reasonable validity (factor loading).
Lecturer Job Satisfaction	This construct measure how much lecturers feel satisfied with their job. This construct consists of six dimensions i.e. resource for scholarship, institutional support and reward, requirement for promotion and tenure, availability of a graduate program, collegiality, and teaching environment
Lecturer Job Satisfaction Composite	Refers to composite data that derived from all questions of Lecturer Job Satisfaction that have minimum factor loading.
NFI	Index Normed-Fit Index (The comparison index between proposed and null model)
Personal Competency	Personal Competency relates to the attitudes and behaviour of individuals preparing to enter the accounting profession.
Personal Competency-Teaching Contents	Refers to how much lecturers include personal competency in their teaching-learning process.
RMSEA	Root Mean Square Error of Approximation

	(Tendency Chi-square statistic rejects the model with large sample size)
Student Achievements	Students' learning outcomes such as GPA.
Student Academic Characteristics	Academic traits that a student possesses such as achievement from previous schooling, type of previous school, previous major and so forth.
Student Demographic Characteristics	Demographic trait that students possess such as Age and Gender
Student Engagement	The physical and psychological effort of student to learn in higher education. An organising construct for institutional assessment, accountability, and improvement effort (Kuh 2009)
Student-Faculty Engagement	A construct for measuring how much lecturers encourage, provide facilitations to students to engage in academic and non academic activities in a university. The questions of Student-Faculty Engagement are the mirror of Student Engagement questions.
Supportive Learning Environment	A dimension of Student Engagement that measure how much students engage in learning environment provided by a university.
SPA/PA	Student Previous Achievements (Achievements earned by students from previous schoolings).
Student-Staff Interaction	One of Student Engagement dimensions for measuring the intensity of interaction between students and lecturers.
System Theory	A network of interdependent components that work together to try to accomplish the aim of the system (Deming 1995)
Work-Integrated Learning	One of Student Engagement dimensions that measures how much a student engage in work-integrated learning activities.