The Contribution of ICTs in the Metamorphosis of Organisational Forms: A Structural Approach

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The Outline of the Presentation

- Introduction
- Theoretical Background
- Instrument Development
- Data Analysis
- Discussion and Conclusion

Introduction

The Research Objective

1. To identify the features of NOFs
2. To identify an underlying model that relates these features to attributes of ICTs
3. To develop and test a research instrument

Theoretical Background

- *Definition of Organizational Form:*

Organisational form refers to the combination of strategy, structure, internal control, and coordination systems that provides an organisation with its operating logic, resource allocation rules, and corporate governance mechanism.

(Creed & Miles 1996).

- *Strategy*

Innovativeness:

This trait reflects the innovative posture in relation to products and processes through a careful analysis of technological development.

Proactiveness:

This trait reflects proactive behaviour in relation to participation in emerging industries, continuous search for market opportunities and experimentation with potential responses to changing environmental trends.

Venkatraman (1989, p 26)

Hypothesis 1(H1):

The type of business strategy an organisation pursues has a direct and positive influence on the resulting organisational form.

Hypothesis 2 (H2):

The type of IT strategy that an organisation pursues in support of its business strategy has a direct and positive influence on the resulting organisational form.

- *ICTs Capabilities*

Hypothesis 3 (H3):

The evolution of the attributes of NOFs is positively related to capabilities provided by ICTs.

- *Management Support*

Hypothesis 4 (H4):

The evolution of attributes of NOFs is positively related to the support top management provides to ICTs.

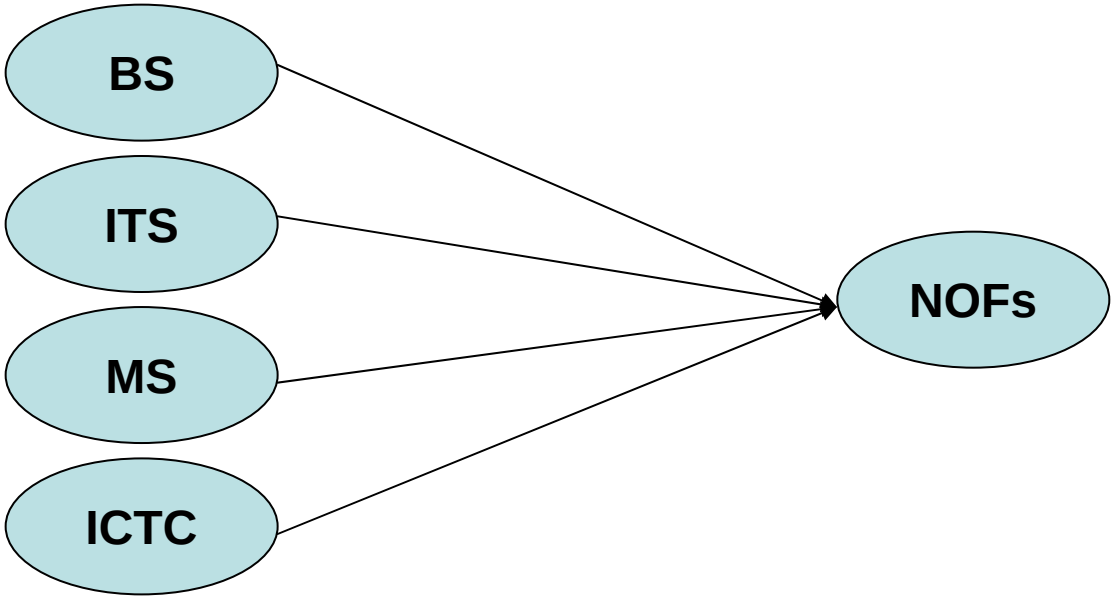

Figure 2 The Initial Research Model

Research Methods

- *Instrument Development*
- *Data Collection*

Table 2 Summary of data collected

	Frequency	Percentage %		Frequency	Percentage %
Job Title					
Chief Executive Officer	110	%52.7	**Annual revenue**		
Chief Information Officer	48	%23	Less than 10 Million (Aus$)	6	%2.8
Other	51	%24.4	Between 10 M and 100 M	78	%37.0
Total	209		Between 100 M and 500 M	61	%28.9
Type of Industry			More than 500 M	55	%26.1
Communications services	22	%10.4	Not Known	11	%5.2
Electricity, Gas, and Water Supply	6	%2.8	Total	211	100.0 %
Construction	23	%10.9			
Government Administration	27	%12.8	**Number of Employees**		
Finance and Insurance	29	%13.7	Less than 999	124	5%8.8
Health and Community Services	28	%13.3	1000 to 9999	67	%31.8
Manufacturing	55	%26.1	10000 to 99999	15	%7.1
None	21	%10.0	Not Known	5	%2.4
Total	211	%100	Total	211	%100

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- *Instrument Validation*

Table 3 Factor analysis for NOFs, Management support and ICT capabilities; PCA extraction method; varmiax rotation method

	Factor loadings						Factor loadings				
Items	1	2	3	4	5	Items	1	2	3	4	5
N10	0.66					M1				0.80	
N5	0.61					M2				0.81	
N7	0.56					M3				0.82	
N2	0.52					M4				0.81	
N1		0.50				M5				0.86	
N9		0.61				ICT1					0.72
N3		0.61				ICT2					0.85
N4		0.57				ICT3					0.81
N14			0.66								
N6			0.64								
N8			0.63								

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Data Analysis (using SEM)

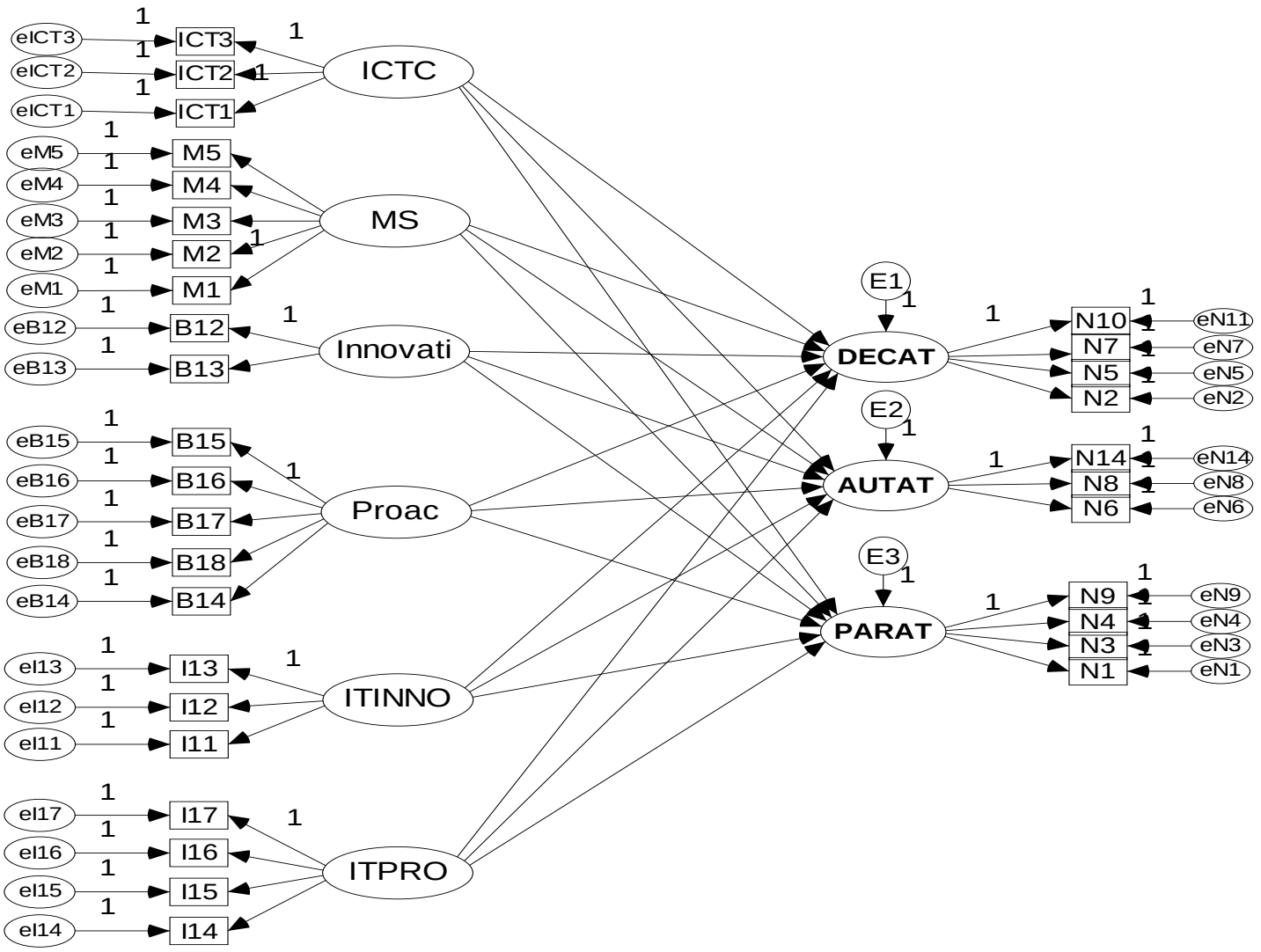

Figure 2. Measurement Model

Table 4 Assessment of the Measurement Model

Construct /indicators	Loading	Composite reliability	Average variance Extracted(AVE)	Construct /indicators	Loading	Composite reliability	Average variance Extracted(AVE)
MS		0.89	0.70	PROAC		0.51	0.60
M1	.71***			B14	.44***		
M2	.72***			B15	.79***		
M3	.81***			B16	.63***		
M4	.79***			B17	.16**		
M5	.87***			B18	.22***		
ICTC		0.79	0.71	DECAT		0.92	0.87
ICT1	.59***			N2	.26**		
ICT2	.92***			N5	.54**		
ICT3	.77***			N10	.63***		
ITPRO		0.77	0.60	N7	.51**		
I14	.59***			PARAT		0.86	0.81
I15	.72***			N1	.42***		
I16	.76***			N3	.25**		
I17	.66***			N4	.40***		
ITINN		0.65	0.59	N9	.59**		
I11	.63***						
I12	.69***			AUTAT		0.70	0.63
I13	.54***			N6	.45***		
INNO		0.75	0.80	N8	.67***		
B12	.75**			N14	.26**		
B13	.80***						

** Significant at $\rho < 0.05$; *** Significant at $\rho < 0.01$

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- Indices for the measurement model:

Normed Chi Square = 125.43

CFI = 0.81

GFI = 0.71

RMSEA = 1.01

- Indices for the measurement model (after re-specification):

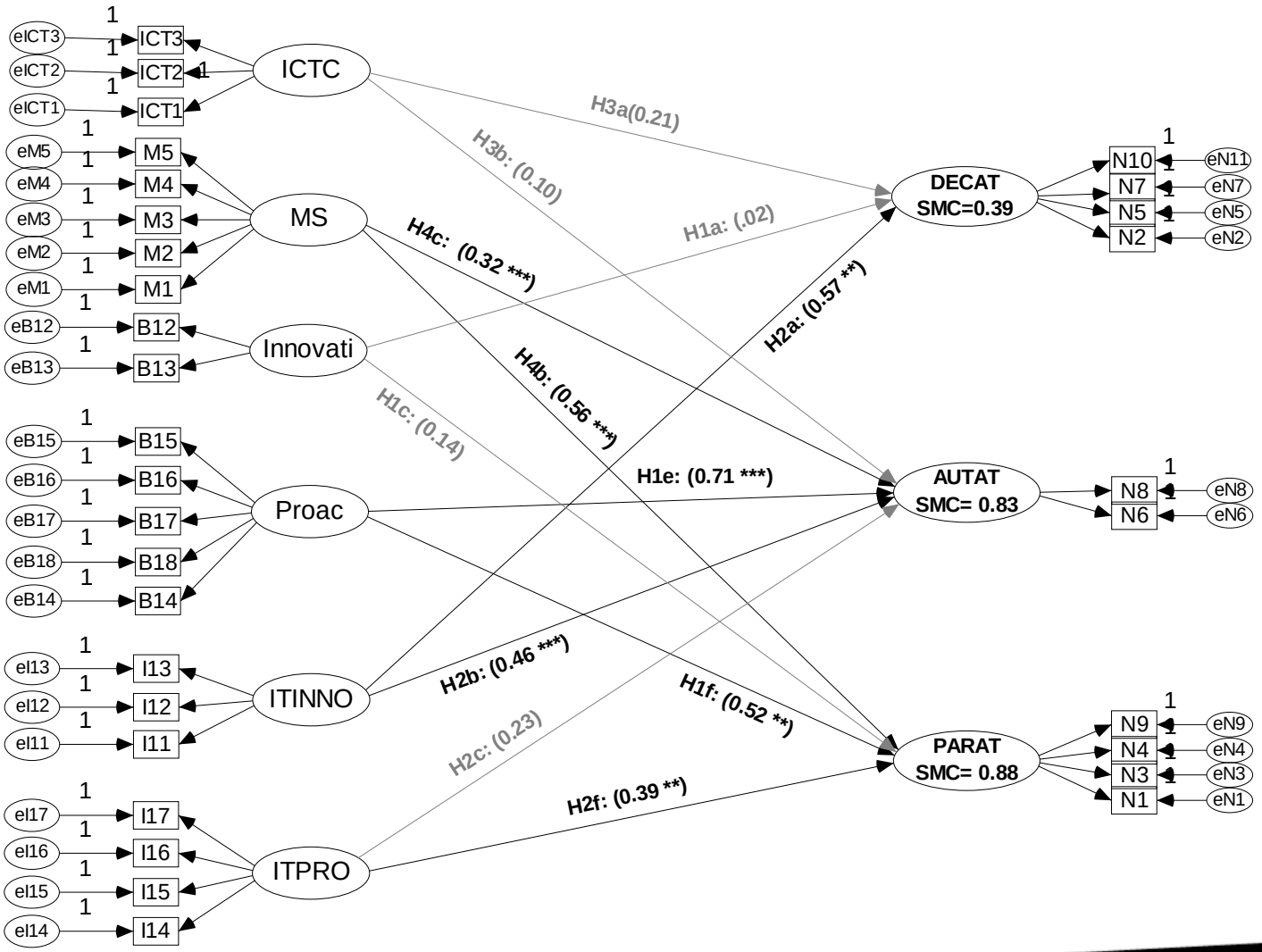
Normed Chi Square = 1.24

CFI = 0.93

GFI = 0.87

RMSEA = 0.04

Structural Model



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Discussion and Conclusion

1. Both dimensions of IT strategy had significant relationship with attributes of NOFs.
2. MS had significant relationship with the attributes of autonomy and participatory.
3. No significant relationship between ICTs and Innovativeness and attributes of NOFs.

- ***Future Research and Limitations***

The End