



# IC in Caribbean Engineering SMEs:

Understanding and Extracting Value within Entrepreneurial Firms

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# Intellectual Capital in a Nutshell

- ▶ IC can be crudely defined as the soft assets within an organisation. It is generally seen as a combination of:
  - ▶ Human Capital
  - ▶ Structural Capital
  - ▶ Relational Capital

# Scope

- ▶ This Research Looks at IC in Engineering SMEs in the Caribbean
- ▶ IC can be used as a barometer to understand the value within entrepreneurial firms

# IC as a Measure of Organisational value

- ▶ Employee competencies
- ▶ Business processes
- ▶ Business relationships

# Roles of SME's

- ▶ SMEs are crucial to the economic development of countries and for sustainability and growth
- ▶ Importance of Entrepreneurship

# Additional Parameters

## Sensemaking and National Culture

- ▶ National Culture.
- ▶ Sensemaking
- ▶ Sensemaking is:

*the reciprocal interaction of information seeking, meaning ascription, and action (Thomas et al. 1993: p.240).*

# Methodology

- ▶ 518 cases from Caribbean precision engineering firms via online questionnaire
- ▶ Exploratory Factors Analysis in SPSS
- ▶ Confirmatory Factors Analysis & Structure Equation Model in Amos
  - ▶ SEM offers many benefits as compared to the less rigorous techniques of path analysis and regression analysis as singular entities.

# Hypotheses

- ▶ H1. There is a positive association between human capital and reporting performance within precision engineering SMEs
- ▶ H2. There is a positive association between structural capital and reporting performance within precision engineering SMEs
- ▶ H3. There is a positive association between relational capital and reporting performance within precision engineering SMEs



# Hypotheses: continue

- ▶ H4. There is a positive association between human capital and Sensemaking within precision engineering SMEs
- ▶ H5. There is a positive association between structural capital and Sensemaking within precision engineering SMEs
- ▶ H6. There is a positive association between relational capital and Sensemaking within precision engineering SMEs

# Hypotheses continue

- ▶ H7 Sensemaking mediates the relationship between the components of intellectual capital and reporting within precision engineering SMEs
- ▶ H8 There is a positive relationship between national culture and the reporting of intellectual capital within precision engineering SMEs
- ▶ H9. The national culture will mediate the relationship between organisational management and reporting intellectual capital within precision engineering SMEs

# Results

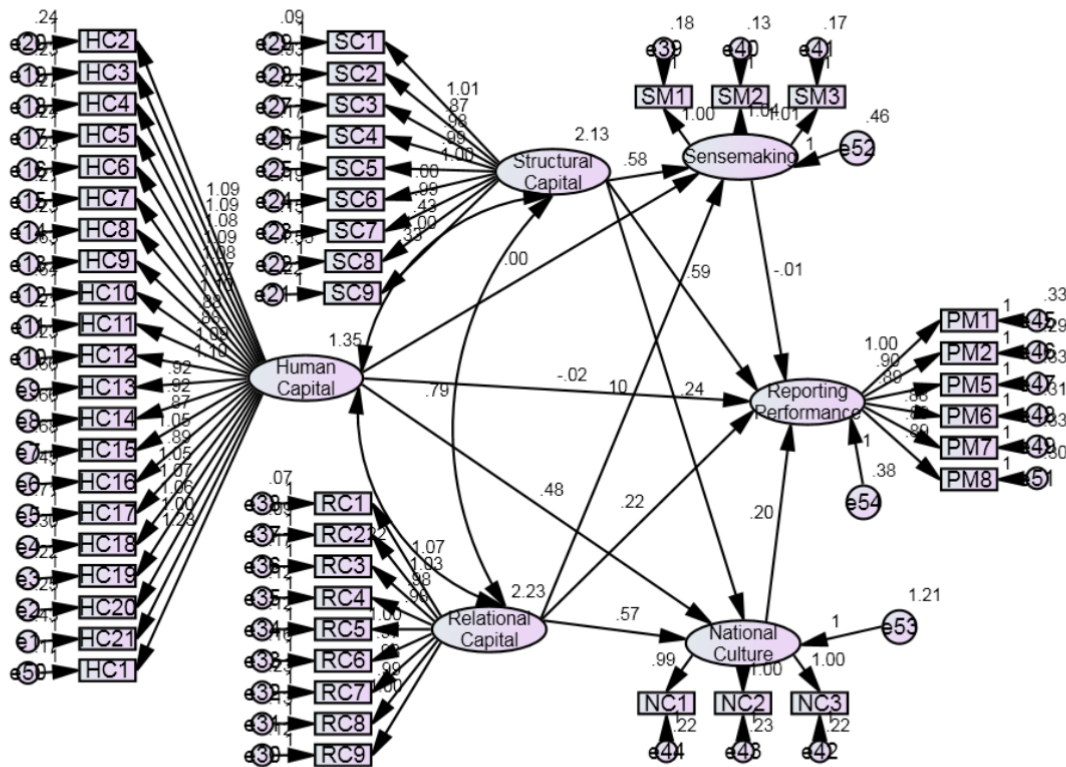
- ▶ From the EFA 3 factors for IC were chosen
  - ▶ Eigenvalues of 2 or greater
- ▶ One factor for Sensemaking
- ▶ One factor For National Culture

# Reliability

- Reliability was assessed using Cronbach's alpha

	Number of Items	Cronbach's Alpha
Factor	Caribbean	Caribbean
Human Capital	21	0.988
Structural Capital	9	0.965
Relational Capital	9	0.993
Sensemaking	3	0.962
National Culture	3	0.973
Reporting Performance	6	0.967

# SEM



# Hypotheses Testing H1, H2, H3

- ▶ H1 path coefficient of -0.02 ( $p=0.588$ )
- ▶ H2 path coefficient 0.22 ( $P= 0.000$ )
- ▶ H3 path coefficient (0.59  $P=0.000$ )

# Hypotheses Testing H4, H5, H6

- ▶ H4 path coefficient 0.58 and  $p=0.000$
- ▶ H5 path coefficient 0.10 and a p value that was statistically significant
- ▶ H6 path coefficient 0.00 with a p value of .984 and

# Hypotheses Testing H7, H8, H9

- ▶ H7 path coefficients 0.20 and  $p=0.000$ .
- ▶ H8 path coefficient of 0.61 and  $p<0.001$ .
- ▶ H9 path coefficient of 0.39 and  $p<0.001$ .



# Conclusion

- ▶ The results show that IC is present in the precision engineering industries
- ▶ Sense making was needed to allow many of the activities to be understood in the context of IC
- ▶ National Culture played a significant role operations of the SME's
- ▶ IC management has the potential to be a major factor in extracting value from firms in the Caribbean.



# Thank you!

► Any questions