CHAPTER 6

DATA ANALYSIS AND RESULTS

6.0 Summary

Chapter six begins with a discussion on data assessment, including a data coding audit, normality assessment, testing for non-response bias, reliability assessment, and validity assessment. It continues with confirmatory factor analyses of measurement models for the study's main constructs and ends with structural equation modeling to test the hypotheses of the study.

6.1 Data Assessment

Data assessment refers to the process of inspecting data for problems that might affect the legitimacy of hypotheses testing. The five main steps for this procedure consist of data coding audit, normality assessment, testing for non-response bias, reliability assessment and validity assessment.

6.1.1 Data Coding Audit

The first step in data analysis of this study is to edit the raw data in order to ensure that the data was correctly coded and accurately entered into a data file. Editing of the data detects errors and omissions, corrects them when possible, and

certifies that minimum data quality standards have been achieved (Cooper and Schindler, 2003).

Coding was used to assign numbers to each answer (Malhotra, 2007; Cooper and Schindler, 2003) and allows the transference of data from the questionnaire to SPSS. This study applied coding by establishing a data file in SPSS, and all questions items were pre-coded with numerical values.

Data coding audit procedures were undertaken after all the data was entered into the data file in order to detect any errors in data entry. First, the accuracy of all values recorded in the data file was rechecked. Initial results showed that 18 out of 237 questionnaires had one or more data entry errors. Out-of-range values in the data file were corrected by referring to the original questionnaire.

It is rare to obtain data without some missing data (Hair et al., 2006). During the data collection process, the missing data was reduced as much as possible by checking all the returned questionnaires. Identified questionnaires which were unanswered or incomplete will be given to the related respondents for completion. Frequency distribution analysis and missing value analysis was run to ensure that the data was clean. The final results indicated that there was no missing data in the data set.

Hair et al. (2006) defined outliers as the observations with a unique combination of characteristics, identified as distinctive from other observations. In this present study, outliers that required deletion arose from procedural errors which included incorrect data entry or mistakes in coding. The original data was cleaned by running the frequency analysis and all items in the questionnaires were within the range of the items or scales.

After all the above procedures were conducted, an independent assistant was required to replicate the same process. The assistant's final check of all 237 questionnaires confirmed that all data had been correctly entered.

6.1.2 Normality Assessment

The scale data utilized in this study was assessed to determine normality of the distribution. Normality is used to describe a curve that is symmetrical and bell-shaped. It is important to check the distribution of variables to be used in the analysis due to the assumption that factor analysis and Structural Equation Modeling required variables to be normally distributed (Hair et al., 2006).

Normality assessment in this study was assessed by checking means, standard deviations, and normality, and normality in terms of skewness and kurtosis. 78 items from the study's six main constructs were assessed for departures from normality.

Hoogland and Boomsma (1999) suggested that standards in Structural Equation Modeling for mean absolute skewness and kurtosis should be with values of less than 0.75 and 1.50, respectively.

The observed mean absolute skewness of the data at 0.53 with a maximum of 1.53 for INT3 and a minimum of 0.01 for GS7 and the mean absolute kurtosis of the data at 0.68 with a maximum of 2.85 for EO5 and a minimum of 0.01 for GM11 meet the standard recommended by Hoogland and Boomsma (1999). Refer to Appendix B for normality assessment data details.

6.1.3 Non-Response Bias Assessment

A non-response bias problem happens when the actual survey respondents differ from sample respondents who refuse to participate (Malhotra, 2007). In this study, non-response bias could be caused by several factors, including the limited time availability of key informants who are mainly the owners or the highest ranking officer of the Malaysian SMEs, lack of international operations in the particular year (2010), closure of business, and fear of exposing data to competitors.

Non-response bias was assessed by comparing early to late respondents as suggested by Armstrong and Overton (1997). They argued that later repliers were more representative of non-respondents than early repliers.

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The descriptive statistics of three different groups: (1) a fast response group (1-4 weeks); (2) a moderate response group (4-8 weeks); and (3) a late response group (after 8 weeks), were compared to assess any significant differences. Table 6.1 shows the means and standard deviations of selected firm-related variables, such as the annual sales of the manufacturing sector, the annual sales of the service and agriculture sectors, the number of employees in the manufacturing sector, the number of employees in the services and agricultural sectors, and the duration of company experience in the current industry. The mean for each of these five variables across the three groups are generally equal, except for the duration of company experience, for which the score from the late response group was slightly different from the first two groups.

Table 6.1: Firm Characteristics by Respondent Groups (n = 237)

Response Time	Fast n = 122	Moderate N = 87	Late N = 28	Total sample N = 237
Annual sales (Manufacturing)	Mean 2.35 s.d 0.522	Mean 2.74 s.d 0.780	Mean 2.58 s.d 0.669	Mean 2.52 s.d 0.662
Annual sales (Service & Agriculture)	Mean 2.46 s.d 0.693	Mean 2.79 s.d 0.855	Mean 2.56 s.d 0.727	Mean 2.60 s.d 0.759
No. of employee (Manufacturing)	Mean 2.39 S.d 0.532	Mean 2.54 s.d 0.657	Mean 2.42 s.d 0.669	Mean 2.45 s.d 0.594
No. of employee (Service & Agriculture)	Mean 2.46 s.d 0.629	Mean 2.81 s.d 0.793	Mean 2.56 s.d 0.727	Mean 2.6 s.d 0.718
Duration of company experience	Mean 4.06 s.d 1.523	Mean 3.68 s.d 1.482	Mean 3.32 s.d 1.335	Mean 3.83 s.d 1.503

Additional analysis for non-response bias was conducted by checking the means and standard deviations of the study's six main constructs. Appendix C illustrates these values for individual items measuring entrepreneurial orientation, global mindset, network relationships, government support, internationalization, and firm performance. Results from Appendix C indicate that non-response bias is not a problem in this study.

6.1.4 Reliability Assessment

Reliability can be defined as the degree to which measures are free from random errors and therefore yield consistent results (Zikmund, 2003). Reliability also refers to the extent to which a scale produces consistent results if repeated measurements are made on the variables of concerns (Malhotra, 2007).

One of the frequent used indicators of reliability is the Cronbach's alpha (Nunnally, 1978). This technique estimates the degree to which the items in the scale are representative of the domain of the construct that is being measured. An alpha coefficient of 0.7 and over is usually recommended as the minimum acceptable level.

Reliability analysis was conducted for the independent, mediating and dependent variables of this study. The results obtained are presented in Table 6.2 below.

Table 6.2: Results of Reliability Analysis

Variable of Items	Number of Items	Cronbach Alpha	Items Deleted
Entrepreneurial Orientation	25	0.849	0
Global Mindset	12	0.757	0
Network Relationships	11	0.860	0
Government Support	12	0.950	0
Internationalization	4	0.820	0
Financial Performance	3	0.926	0
Non-Financial Performance	11	0.954	0

From Table 6.2, it can be observed that each of the reliability coefficients ranges from 0.757 to 0.954, which concurs with Nunnally's (1978) minimum acceptable level of 0.70.

6.1.5 Construct Validity Assessment

Construct validity was assessed in this study in accordance with factor analysis described by Deshpande (Deshpande, 1982). Exploratory Factor Analysis is a technique for data exploration and used to determine the structure of factors to be analyzed. It is used to establish dimensionality and convergent validity of the relationship between items and constructs. Besides determining the validity of the measurements, the objective of doing factor analysis in this study was to identify representative variables to be used in the subsequent analysis.

To justify the application of factor analysis in this study, the measure of sampling adequacy, a statistical test to quantify the degree of inter-correlations among the variables (Hair et al., 2006) was used. The measure of sampling adequacy uses the Bartlett's Test of Sphericity (Barlett's test) and Kaiser-Mayer-Olkin (KMO). The Barlett's test should be significant ($p<0.05$) for the factor analysis to be considered appropriate and the measure of sampling adequacy produces the KMO index that range from 0 to 1, indicates that KMO more than 0.60 are considered appropriate for factor analysis.

The principal component factor analysis with the rotation method of varimax with Kaiser Normalization was conducted to obtain factor loadings in order to assess construct validity. Discriminant and convergent validity of the study's main construct were assessed by examining the factor loadings of the measurement scales (Hair et al., 2006). Tabachnick and Fidell, 2007 argued that the determination of the cutoff point for assessment of validity is the researcher's choice. However, several researchers suggested that convergent validity is attained when factor loadings are $\geq$ 0.70 (Bagozzi, 1981; Tabachnick and Fidell, 2007) and the average variance extracted for each factor component is $\geq$ 50% (Anderson and Gebing, 1988). Comrey and Lee (1992) suggested that loadings of 0.71 are considered excellent, and the factor loadings of 0.63 are very good, 0.55 are considered good, 0.45 fair, while 0.32 are poor. Nunnally (1978) suggested that items with loadings higher than 0.50 on one factor are retained for further analysis and this coefficient of 0.50 and above has been used in this study.

Table 6.3 to Table 6.9 shows the results of the factor analysis of the constructs for this study.

Table 6.3: Exploratory Factor Analysis of Entrepreneurial Orientation

Factor / Items	Factor Loading
KMO = 0.863 Barlett's: Sig = 0.00 % of variance explained = 50.27%	
EO2: In general, we favor a strong emphasis on research and development (R&D)	0.739
EO8: We provide higher quality products and services than competitors.	0.640
EO9: We provide more superior solutions to our customer problems.	0.631
EO12: Compared to competitors, we are very often the first business to introduce new products and services.	0.755
EO13: Compared to competitors, we are very often the first business to introduce new operating technologies.	0.786
EO14: Compared to competitors, we are very often the first business to introduce new administrative techniques.	0.675
EO24: We are willing to take higher risks in the exploration of new business opportunities in the foreign markets.	0.630
EO25: We are willing to enter new foreign markets with high probability of failure in an unknown competitive environment.	0.599

Results from Table 6.3 indicate that the KMO for entrepreneurial orientation is 0.863 which is more than the recommended level of 0.60 and the Barlett's Test of Sphericity is significant at p = 0.00 (Hair et al., 2006). Therefore, the values are considered to be appropriate for factor analysis.

Entrepreneurial orientation factor loadings provided in Table 6.3 range from 0.599 to 0.786 above 0.50 and were retained for further analysis (Nunnally, 1978).

The remaining items, EO1, EO3, EO4, EO5, EO6, EO7, EO10, EO11, EO15, EO16, EO17, EO18, EO19, EO20, EO21, EO22 and EO23 with factor loadings of less than 0.50 were removed from further analysis. The average variance extracted for entrepreneurial orientation construct was 50.27%, satisfying the standard of ≥ 50% established by Anderson and Gebing (1988) which indicates convergent validity (Bagozzi, 1981; Comrey and Lee, 1992; Tabachnick and Fidell, 2007).

Table 6.4: Exploratory Factor Analysis of Global Mindset

Factor / Items	Factor Loading
KMO = 0.754 Barlett's: Sig = 0.00 % of variance explained = 50.54%	
GM2: In our international business dealings, we believe that the "Malaysian Way" is the best way.	0.793
GM4: It easy to adapt to unique behaviors and practices of foreigners, especially when they are our customers.	0.695
GM5: We can adapt to the special needs of customers in different countries.	0.512
GM9: Cultural values are actually quite similar around the world.	0.658
GM10: International business should be done according to universal standards and practices, not according to standards and practices of one or two countries.	0.614
GM12: We should make products or services that can serve a global market.	0.704

Table 6.4 illustrates that the KMO for global mindset is 0.754 which is more than the recommended level of 0.60 and Barlett's Test of Sphericity is significant at p = 0.00 (Hair et al., 2006). Therefore the values are considered to be appropriate for factor analysis.

The factor loadings for the global mindset construct of items GM2, GM4, GM5, GM9, GM10 and GM12 ranged from 0.512 to 0.793 which is above 0.50 (Nunnally, 1978) and all mentioned items were retained for further analysis. The remaining items, GM1, GM3, GM6, GM7, GM8 and GM11 which produced factor loadings of less than 0.50 were removed from further analysis. The average variance extracted for the global mindset construct was 50.54%, satisfying the standard of ≥ 50% established by Anderson and Gebing (1988) which indicated convergent validity (Bagozzi, 1981; Comrey and Lee, 1992; Tabachnick and Fidell, 2007).

Table 6.5: Exploratory Factor Analysis of Network Relationships

Factor / Items	Factor Loading
KMO = 0.835 Barlett's: Sig = 0.00 % of variance explained = 58.82%	
NR2: Network relationships with customers, distributors and suppliers can open new opportunities for our company in foreign markets	0.726
NR3: Our relationship with customers, distributors, suppliers and competitors assist us in entering foreign markets.	0.697
NR6: We managed to cope positively with rapid technological changes from our network relationships with customers, distributors and suppliers.	0.586
NR7: Network relationships with customers, distributors and suppliers provided a way to maximize our adaptability to foreign environment.	0.661
NR8: Networks facilitate and accelerate our company's internationalization process.	0.653
NR10: Network relationships with brokers help our company in the planning and management of marketing in the foreign market.	0.785

Table 6.5 show that the KMO for network relationships value is 0.835 which is more than the recommended level of 0.60 and Bartlett's Test of Sphericity is significant at p = 0.00 (Hair et al., 2006). Thus the values were considered to be appropriate for factor analysis.

The factor loadings for items NR2, NR3, NR6, NR7, NR8 and NR10 in the network relationships construct ranged from 0.586 to 0.785 which are above 0.50 recommended (Nunnally, 1978) and thus, were retained for further analysis. The remaining items, NR1, NR4, NR5, NR9 and NR11 were removed from further analysis due to low factor loadings of less than 0.50.The average variance extracted for network relationships was 58.82%, satisfying the standard of $\geq 50\%$ established by Anderson and Gebing (1988) which indicated convergent validity (Bagozzi, 1981; Comrey and Lee, 1992; Tabachnick and Fidell, 2007).

Table 6.6: Exploratory Factor Analysis of Government Support

Factor / Items	Factor Loading
KMO = 0.931 Barlett's: Sig = 0.00 % of variance explained = 59.89%	
GS2: We received financial and credit assistance from the government for our international expansion.	0.668
GS3: Training and technical assistance from the government help our company's development in the foreign market.	0.680
GS6: Government support programs on the extension and advisory services improved our company's product quality and design.	0.650
GS8: We received substantial subsidies from the government for our international operations.	0.654
GS10: The government supports our company with an injection of soft loans to trade out of our difficulties.	0.671
GS12: Our close relationships with the government enable us to control over resources available in the international markets.	0.645

Table 6.6 illustrates that the KMO for government support value was 0.931 which exceeds the recommended level of 0.60 and Bartlett's Test of Sphericity was significant at p = 0 (Hair et al., 2006). These values were considered to be appropriate for factor analysis.

Factor loadings value of items, GS2, GS3, GS6, GS8, GS10 and GS12 ranged from 0.645 to 0.680, above 0.50 (Nunnally, 1978). Thus all these items were retained for further analysis. The remaining items, GS1, GS4, GS5, GS7, GS9 and GS11 that produced factor loadings of less than 0.50 were removed from further analysis. The average variance extracted for government support was 59.89%, satisfying the standard of ≥ 50% established by Anderson and Gebing (1988) which indicate convergent validity (Bagozzi, 1981; Comrey and Lee, 1992; Tabachnick and Fidell, 2007).

Table 6.7: Exploratory Factor Analysis of Internationalization

Factor / Items	Factor Loading
KMO = 0.625 Barlett's: Sig = 0.00 % of variance explained = 58.89%	
INT1: Please estimate the percentage of your company's last year total sales from international operations.	0.967
INT2: Please estimate the percentage of your company's last year profit from international operations.	0.816
INT3: Please indicate the total number of your company's international markets.	0.294
INT4: Please estimate how long your company has been actively involved in international operations?	0.279

Table 6.7 illustrates that the KMO for internationalization value was 0.625 which is more than recommended level of 0.60 and Bartlett's Test of Sphericity was significant at p = 0 (Hair et al., 2006). These values are considered to be appropriate for factor analysis.

The average variance extracted for internationalization was 58.89%, satisfying the standard of ≥ 50% established by Anderson and Gebing (1988) which indicating convergent validity (Bagozzi, 1981; Comrey and Lee, 1992; Tabachnick and Fidell, 2007).

Table 6.8: Exploratory Factor Analysis of Financial Performance

Factor / Items	Factor Loading
KMO = 0.737 Barlett's: Sig = 0.00 % of variance explained = 81.37%	
FP1: Average Return on Equity (ROE) over the past five years period.	0.864
FP2: Average Return on Assets (ROA) over the past five years period.	0.910
FP3: Average growth of sales over the past five years period.	0.668

Table 6.8 exhibits the KMO for financial performance value as being at 0.737, higher than the recommended level of 0.60 and the Bartlett's Test of Sphericity was significant at p = 0.00. Thus, the values were considered to be appropriate for factor analysis.

The factor loading of items, FP1, FP2 and FP3 ranged from 0.668 to 0.910 above the recommended level of 0.50 (Nunnally, 1978). All the above items were retained for further analysis. The average variance extracted for financial performance was 81.37%, exceeding the recommended standard of ≥ 50% (Anderson and Gebing, 1988) which indicates convergent validity (Bagozzi, 1981; Comrey and Lee, 1992; Tabachnick and Fidell, 2007).

Table 6.9: Exploratory Factor Analysis of Non-Financial Performance

Factor / Items	Factor Loading
KMO = 0.953 Barlett's: Sig = 0.00 % of variance explained = 66.88%	
NFP5: Our international experience has raised our overall standard performance.	0.700
NFP6: Our international experience has given us access to new production technologies.	0.705
NFP7: Our international experience has given us access to new product design technologies.	0.722
NFP8: Our international experience has increased our knowledge about many new technologies.	0.793
NFP9: Our international experience has changed our beliefs about the benefits of possible new technologies.	0.733
NFP10: Our international experience has increased our skills in using new technologies.	0.754
NFP11: Our international experience has made this company smarter in term of its operations.	0.763

The last construct, non-financial performance with the KMO value of 0.953 and the Barlett's Test of Sphericity was significant at p = 0.00. Therefore, these values were considered appropriate for factor analysis (Hair et al., 2006).

The factor loading of items, NFP5, NFP6, NFP7, NFP8, NFP9, NFP10 and NFP11 ranged from 0.700 to 0.793, above the recommended level of 0.50 (Nunnally, 1978). All the items mentioned were retained for further analysis. The remaining items, NFP1, NFP2, NFP3, and NFP4 were removed from further analysis due to low factor loadings of less than 0.50. The average variance extracted for financial performance was 66.88% more than the recommended standard of $\geq 50\%$ (Anderson and Gebing, 1988) which indicates convergent validity (Bagozzi, 1981; Comrey and Lee, 1992; Tabachnick and Fidell, 2007).

Overall, the assessment of reliability and validity of scale properties shows that all measurements are acceptable as exhibited by appropriate correlations, high reliabilities and clean factor loadings. Therefore, convergent and discriminant validity were established in this study.

6.2 Descriptive Statistics Analysis

A descriptive analysis was performed to establish the general background of the respondents that participated in this study. Of the 237 SMEs in the survey, 60.3 percent are Bumiputera and 39.7 percent are Non-Bumipureta.12.2 percent of the respondents are sole proprietorships while partnerships and private limited companies constitute 11.4 percent and 76.4 percent respectively.

Table 6.10: Profile of Small and Medium Enterprises

Business Status		
Business Status	**Frequency**	**Percentage (%)**
Bumiputera	143	60.3
Non-Bumiputera	94	39.7
Total	**237**	**100.0**
Form of Ownership Status		
Ownership Status	**Frequency**	**Percentage (%)**
Sole-Proprietorship	29	12.2
Partnership	27	11.4
Private Limited Company	181	76.4
Total	**237**	**100.0**
Location of Company Head Office		
Location	**Frequency**	**Percentage (%)**
Urban	143	60.3
Suburban	75	31.6
Rural	19	8.0
Total	**237**	**100.0**
Business Sector		
Sector	**Frequency**	**Percentage (%)**
Manufacturing	98	41.4
Services	84	35.4
Agriculture	55	23.2
Total	**237**	**100.0**
Primary Area of Business		
Manufacturing		
Subsector	**Frequency**	**Percentage (%)**
Food and Beverages	27	27.6
Rubber and Plastic Products	11	11.2
Transportation	1	1.0
Chemicals and Chemical Products	10	10.2
Electrical and Electronics	16	16.3
Wood and Wood Products	3	3.1
Machinery and Equipment	7	7.1
Textiles and Apparels	15	15.3
Metals and Metal Products	5	5.1
Non Metallic Mineral Products	3	3.1
Total	**98**	**100.0**

Table 6.10: Profile of Small and Medium Enterprises, continued

Services		
Subsector	**Frequency**	**Percentage (%)**
Education and Health	11	13.1
Restaurant and Hotel	5	6.0
Computer Industry Services	6	7.1
Telecommunication	0	0.0
Professional Services	23	27.4
Transportation and Communication	12	14.3
Wholesale and Retail Trade	16	19.0
Others	11	13.1
Total	**84**	**100.0**
Agriculture		
Subsector	**Frequency**	**Percentage (%)**
Plantation and Horticulture	37	67.3
Fishery	5	9.1
Poultry Farming	13	23.6
Total	**55**	**100.0**
Annual Total Sales		
Manufacturing		
Annual Total Sales	**Frequency**	**Percentage (%)**
Medium: RM10 Million – RM25 Million	56	57.1
Small: RM250,000 – RM9.9 Million	33	33.7
Micro: Less than RM250,000	9	9.2
Total	**98**	**100.0**
Services and Agriculture		
Annual Total Sales	**Frequency**	**Percentage (%)**
Medium: RM1 Million – RM5 Million	79	56.8
Small: RM200,000 – RM999,999	37	26.6
Micro: Less than RM200,000	23	16.6
Total	**139**	**100.0**
Number of Full-Time Employees		
Manufacturing		
Number of Employees	**Frequency**	**Percentage (%)**
Medium: 51-150 employees	59	60.2
Small: 5-50 employees	34	34.7
Micro: Less than 5 employees	5	5.1
Total	**98**	**100.0**

Table 6.10: Profile of Small and Medium Enterprises, continued

Services and Agriculture		
Number of Employees	**Frequency**	**Percentage (%)**
Medium: 20-50 employees	74	53.2
Small: 5-19 employees	46	33.1
Micro: Less than 5 employees	19	13.7
Total	**139**	**100.0**
Duration of Time Company Experience in Current Industry		
Period	**Frequency**	**Percentage (%)**
Up to 1 year	0	0
2 – 5 years	57	24.1
6 – 10 years	63	26.6
11 – 15 years	36	15.2
16 – 20 years	25	10.5
More than 20 years	56	23.6
Total	**237**	**100.0**
Duration of Time Company Experience in International Operations		
Period	**Frequency**	**Percentage (%)**
1 – 5 years	118	49.8
6 – 10 years	62	26.2
11 – 15 years	15	6.3
16 – 20 years	14	5.9
More than 20 years	28	11.8
Total	**237**	**100.0**
International Business Transactions		
Country	**Frequency**	**Percentage (%)**
ASEAN Countries	113	47.7
Asian Countries	85	35.9
North America Countries	9	3.8
European Union Countries	19	8.0
Other Countries	11	4.6
Total	**237**	**100.0**
Number of International Markets		
No of Country	**Frequency**	**Percentage (%)**
1 - 5	141	59.5
6 - 10	47	19.8
11 - 15	22	9.3
16 - 20	8	3.4
More than 20	19	8.0
Total	**237**	**100.0**

Table 6.10: Profile of Small and Medium Enterprises, continued

Percentage of Total Sales from International Operations		
Percentage of Total Sales	**Frequency**	**Percentage (%)**
1% - 20%	100	42.2
21% - 40%	58	24.5
41% - 60%	28	11.8
61% - 80%	31	13.1
More than 80%	20	8.4
Total	**237**	**100.0**
Percentage of Profit from International Operations		
Percentage of Profit	**Frequency**	**Percentage (%)**
1% - 20%	122	51.5
21% - 40%	45	19.0
41% - 60%	26	11.0
61% - 80%	29	12.2
More than 80%	15	6.3
Total	**237**	**100.0**

In term of geographical location, most of the SMEs in Malaysia were located in urban areas (60.3%). The remaining 31.6 percent were in suburban areas whilst the rural areas accounted for 8 percent. It can be observed that the majority of the SMEs in this study were located and operated in urban areas due to the good infrastructure and facilities provided by the government under several government support programs.

Further analysis reveals that out of 237 respondents, 41.4 percent were involved in manufacturing activities, 35.4 percent in services and 23.2 percent were directly involved in agricultural businesses. Specific industry sectors were more heavily represented due to the concentration of SMEs in areas that are economically developed and supported by the government.

In the manufacturing sector, more than half are in the three key subsectors, namely food and beverages (27.6%), electrical and electronics (16.3%), and textiles and apparels (15.3%). Most of the businesses in the service sector were involved in professional services (27.4%), wholesale and retail trade (19.0%) and transportation and telecommunication (14.3%) and this was followed by the agricultural sector which constituted 23.2 percent of the respondents mainly involved in crop plantation and horticulture (67.3%) and poultry farming (23.6%).

Examination of the annual total sales of SMEs in the manufacturing sector indicated that 57.1 percent of the sampled SMEs fall within the medium category with RM10 Million to RM25 Million annual total sales, 33.7 percent falls within the small category with RM250, 000 to RM9.9 Million annual total sales, and 9.2 percent within the micro category with less than RM250, 000 annual total sales. Therefore, more than 50 percent of the SMEs in the manufacturing sector reported annual total sales of RM10 Million to RM25 Million indicating that the majority of the SMEs in the manufacturing sector generated sales at the higher end of the survey range.

Similar to the manufacturing sector, most of the SMEs in the services and agricultural sectors' annual total sales fell within the medium category with RM1 Million to RM5 Million annual total sales (56.8%), 26.6 percent fell within the small category with annual total sales between RM200, 000 to RM999, 999, and 16.6

percent were under the micro category with annual total sales of less than RM200, 000.

Based on the number of full-time employees in the manufacturing sector, more than half of the SMEs had between 51 to 150 employees (60.2%), while another 34.7 percent had between 5 to 50 employees and only 5.1 percent had less than 5 employees.

Subsequently, similar to the manufacturing sector, more than half of the SMEs in the services and agricultural sector fell within the medium category, having between 20 to 50 employees (53.2%), another 33.1 percent of these enterprises had between 5 to 19 employees while the micro category (13.7%) had less than 5 employees.

Based on the annual total sales, the number of employees and classification of SMEs by the National SME Development Council (2005), it can be said that the majority of the SMEs in this study are medium in size.

About 24.1 percent of SMEs began their operations less than 5 years ago, while another 26.6 percent started operations between 6 to 10 years ago. 56 of the SMEs accounting for 23.6 percent had an establishment of more than 20 years. This indicates that the majority of the SMEs in this study are considered as young entrepreneurial new ventures.

As for the duration of internationalization, nearly half of SMEs (49.8%) had been involved in international operations between 1 to 5 years in international business and 26.2 percent had been involved in international business between 6 to 10 years. Therefore, it is clear that most of the SMEs in this study are in their early phase of involvement in international business with low mode of entry such as imports and exports with limited foreign functions.

Based on international business transactions, nearly half of the SMEs (47.7%), conducted international business transactions with ASEAN Countries, 35.9 percent transacted with Asian Countries and the remaining 16.4 percent conducted their business transactions with North America Countries, European Union Countries and other countries around the world. It is indicated that due to their early involvement in international business, the majority started dealings with business partners near the home country due to the high degree of similarity between the two markets.

The majority of the respondents' companies (59.5%) exported to between 1 to 5 countries. In addition, 19.8 percent of the enterprises exported to between 6 to 10 countries, indicating early involvement with a small number of foreign countries as their international initiatives.

Analysis on the percentage of total sales from international operations shows that 42.2 percent of SMEs enjoyed between 1 to 20 percent sales from such sources,

whereas 24.5 percent generated international sales of between 21 percent to 40 percent.

In addition, the majority of the SMEs (51.5%) received between 1 to 20 percent profit from international sources and another 19 percent received between 21 to 40 percent. This indicated that the majority of the respondents were in their early stage of internationalization with a relatively low level of foreign sales and foreign profits.

Based on the above data analysis, it can be observed that the majority of the respondents in this study were bumiputera, with 143 respondents (60.3%) while the non-bumiputera represented 39.7% or 94 respondents. It was also found that the majority of the SMEs in this study were private limited companies (76.4%).

Based on the annual total sales, the number of employees and classification of SMEs by the National SME Development Council (2005), it can be said that the majority of the SMEs in this study are medium in size.

In terms of the business sector, with a percentage of 41.4%, the manufacturing sector appears to be the dominant sector in the sample. This was followed by services sector (35.4%) and agricultural sector 23.2%).

As for duration of experience in their current industry, the study indicated that the majority of the respondents were new ventures with less than 10 years in the business (50.7%), representing120 respondents. Furthermore, it was found that the majority of the SMEs in this study were in the early stage of internationalization, having between 1 to 5 years (49.8%) experience in international operations. Further analysis indicated low commitment in their international operations, with operations in 1-5 international markets (59.5%), generating between 1% - 20% total sales (42.2%) and 1% - 20% profit.

6.3 Confirmatory Factor Analysis

Confirmatory factor analysis was utilized to estimate the single-factor measurement model for each of the study's six constructs. The measurement models for each construct started with all scale items which were selected from the exploratory factor analyses conducted earlier. Various items were then eliminated over several confirmatory factor analysis iterations based on fit deficiencies. The purpose of this process was to identify the best measurement items for each latent construct.

6.3.1 Evaluating the Fit of the Model

There are many goodness-of-fit indices devised by researchers to evaluate a model's fit to observed data (Arbuckle and Wothke, 1999; Hu and Bentler, 1999;

Tanaka, 1993), but without agreement among researchers on a single index or on a composite of indices as a universal measure of model fit (Maruyama, 1998).

Anderson and Gerbing (1988) suggested that one or more overall goodness-of-fit indices should be utilized to evaluate a model's fit to observed data. Kline (1998) recommended at least four indices to be used such as Goodness of Fit Index (GFI), Normed Fit Index (NFI), Comparative Fit Index (CFI), Nonnormed Fit Index (NNFI), and Standardized Root Mean Square Residual (SRMR).

In order to reflect diverse criteria and produce the best overall picture of model fit, Hair et al. (2006) recommended the use of at least three fit indices by including one in each of the categories of model fit: absolute, incremental and parsimonious. A summary of the goodness-of-fit indices are presented in Tables 6.11 to Table 6.13 below.

Absolute Fit Indices

The Chi-square ($\chi2$) estimated the difference between the covariances produced by the proposed model and the expected covariances based on theory. Although this type of statistical index is the most important one to assess fit of the model, it has been criticized for being too sensitive to sample size (Joreskog and Sorborm, 1996), particularly in cases where sample size is more than 200 (Hair et

al., 2006). Therefore, researchers do not solely utilize the value of chi-square to reject or accept their models, but utilize it in conjunction with other indices to assess overall fit.

The second measure of absolute fit index is the Goodness-of-Fit index (GFI) which indicates the relative amount of variance and covariance together explained by the model. However, this index is not adjusted for degrees of freedom (Hair et al., 2006). It ranges from 0 (indicating a poor fit) to 1 (indicating a perfect fit), and the recommended level of acceptance is 0.90 (Hair et al., 2006).

The third measure of absolute fit index is Root Mean Square Error of Approximation (RMSEA). It measures discrepancy per degree of freedom. The closer to zero the value of Root Mean Square Error of Approximation (RMSEA), the less the variances and covariances are left unexplained. The Root Mean Square of Approximation (RMSEA) values range from 0 (indicating a poor fit) to 1 (indicating a perfect fit). According to Hair et al. (2006) a value ranging from 0.05 to 0.08 is commonly acceptable.

Table 6.11: Summary of Goodness-of-Fit Indices (Absolute fit indices)

Name of the Index	Level of Acceptance	Comments
Chi-square (χ2)	p>0.05	This means the sample is sensitive to large sample sizes.
Goodness-of-Fit (GFI)	0.9 or greater	Values close to 0 indicate poor fit, while values close to 1 indicates a perfect fit.
Root Mean Square Error of Approximation (RMSEA)	Between 0.05 and 0.08	Values ranging from 0 to 1 indicate a poor to a perfect fit.

Incremental Fit Indices

The Comparative Fit Index (CFI) compares the covariance matrix predicted by the model to the observed covariance matrix. The Comparative Fit Indices (CFI) values range from 0 (poor fit) to 1 (perfect fit), with a normally recommended level of 0.90 or greater (Hair et al., 2006).

Table 6.12: Summary of Goodness-of-Fit Indices (Incremental fit indices)

Name of the Index	Level of Acceptance	Comments
Comparative Fit Index (CFI)	0.90 or greater	Values close to 0 indicate a poor fit, while values close to 1 indicate a perfect fit.

Parsimonious Fit Indices

The parsimonious fit indices, Normed chi-square (χ2 ∕ df) or (CMIN/DF) tests the parsimony of the proposed model by evaluating the fit of the model to the number of estimated coefficients required to achieve the level of fit (Hair et al.,

2006). The range of acceptable values for χ^2 /df ratio is less than 2.0 (Hair et al., 2006; Tabachnick and Fidell, 2007), through less than 3.0 to more liberal limits of less than 5.0 (Chin and Todd, 1995).

Table 6.13: Summary of Goodness-of-Fit Indices (Parsimonious fit indices)

Name of the Index	Level of Acceptance	Comments
Normed chi-square ($\chi^2 /_{df}$) CMIN/DF	$1.0 \leq \chi^2/df \leq 5$	Lower limit is 1.0, upper limit is 3.0 or as high as 5.

This study used three fit indices by including one in each of the categories of model fit namely; Root Mean Square Error of Approximation (RMSEA), Comparative Fit Index (CFI), and Normed chi-square (χ^2 / df) or CMIN/DF to evaluate a model's fit to observed data as recommended by Hair et al. (2006) in order to reflect diverse criteria and produce the best overall picture of model fit.

6.3.2 Measurement Model for Entrepreneurial Orientation

Confirmatory factor analyses were conducted for the three dimensions of entrepreneurial orientation; innovativeness, pro-activeness and risk taking. The confirmatory factor analyses started with a measurement model containing all eight items, EO2, EO8, EO9, EO12, EO13, EO14, EO24, and EO25.

Figure 6.1 presented the initial results of the first order confirmatory factor analysis output model for entrepreneurial orientation. It indicated that the initial measurement model indices did not adequately fit the model. The CFI was 0.712, CMIN/DF = 10.945, and RMSEA = 0.205. Confirmatory factor analysis was performed again, resulting in the removal of EO25 since it had the lowest factor loading of 0.22.

Figure 6.1: 1st Order Confirmatory Factor Analysis Output Model for Entrepreneurial Orientation
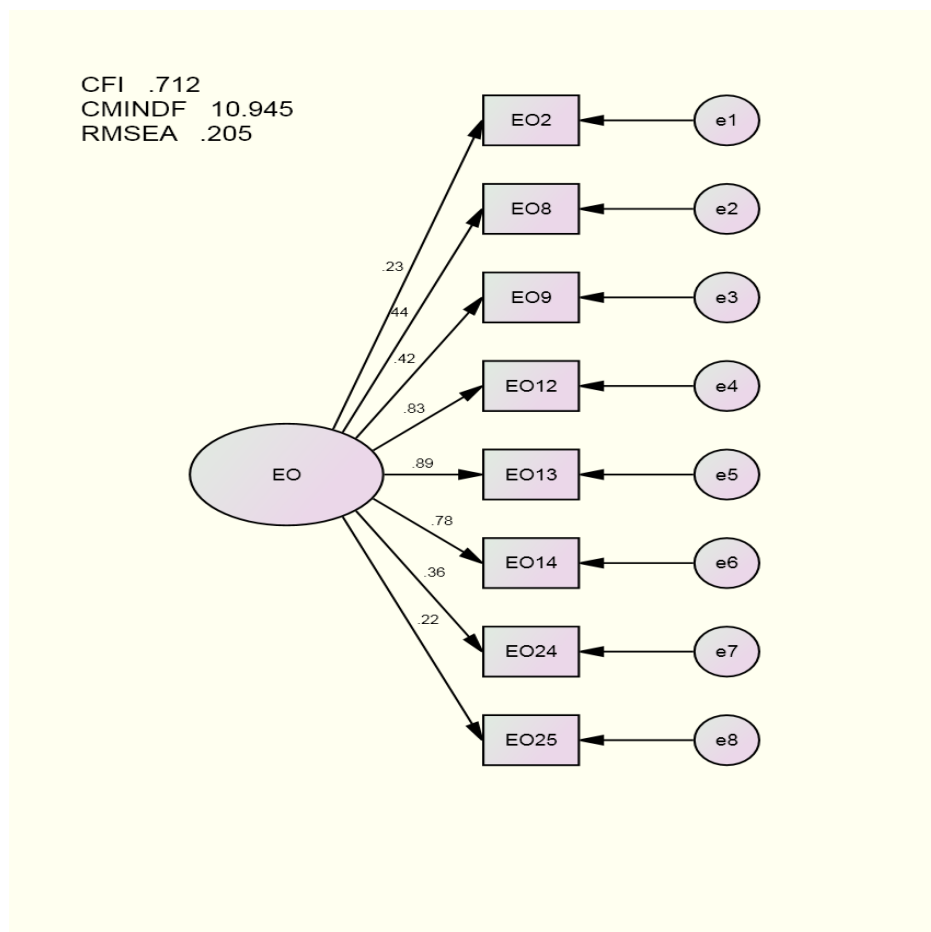
Figure 6.2: 2nd Order Confirmatory Factor Analysis Output Model for
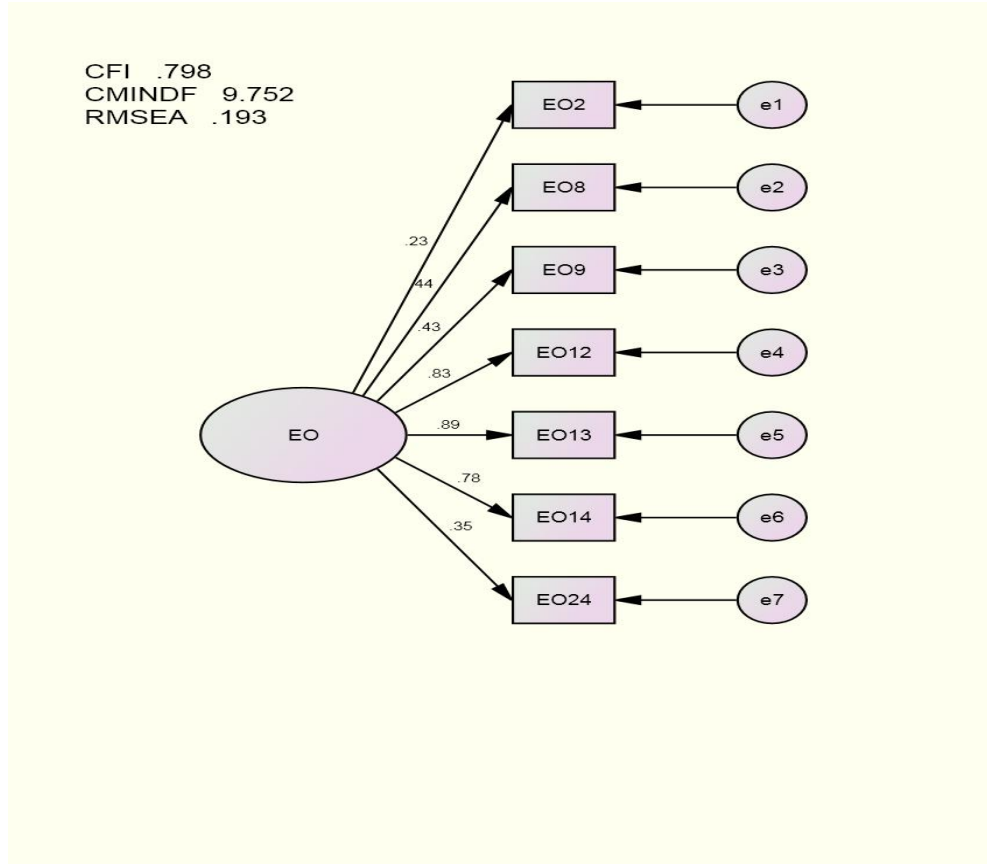
Entrepreneurial Orientation

Figure 6.2 indicated that measurement model indices also did not adequately fit the model. The CFI = 0.798, CMIN/DF = 9.752, and RMSEA = 0.193. Third order confirmatory factor analysis was performed by removing EO2, with the lowest factor loading of 0.23.

Figure 6.3: 3rd Order Confirmatory Factor Analysis Output Model for
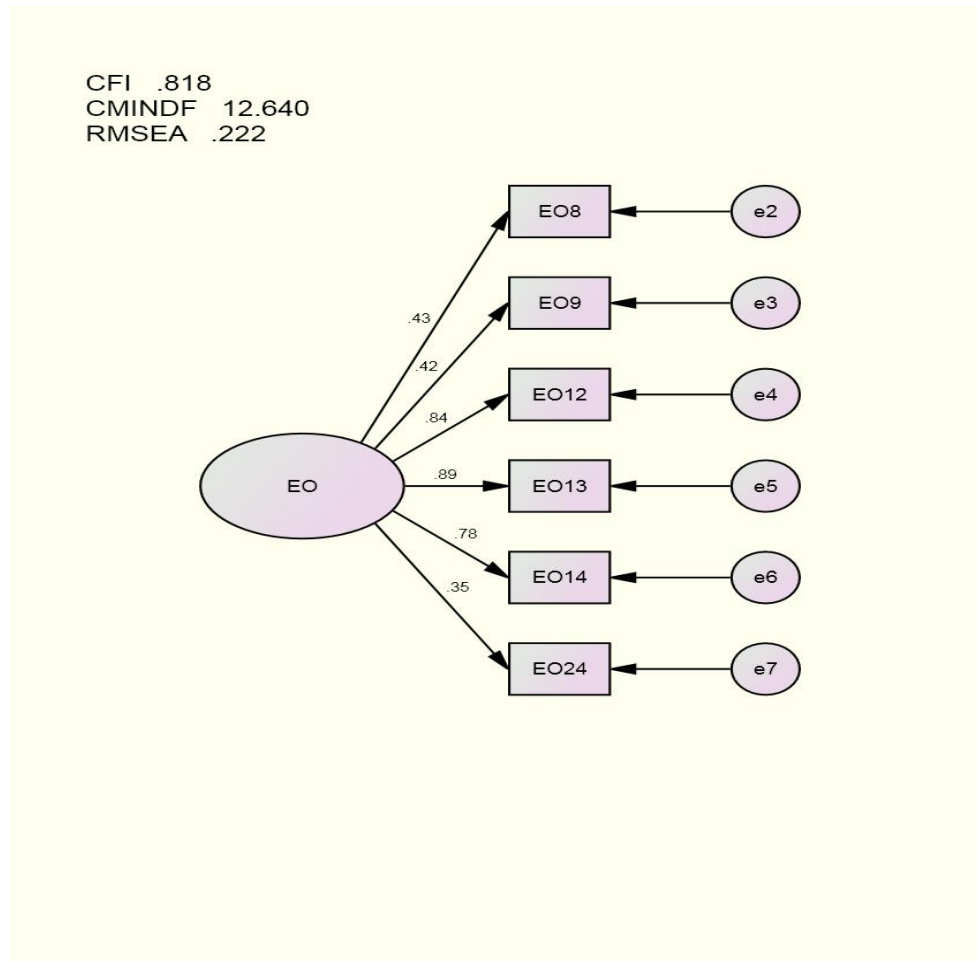
Entrepreneurial Orientation

Figure 6.3 illustrates that measurement model indices still did not adequately fit the model. The CFI = 0.818, CMIN/DF = 12.640, and RMSEA = 0.222. Therefore, fourth order confirmatory factor analysis was performed with the removal of EO24 due to lowest factor loading of 0.35.

Figure 6.4: 4rd Order Confirmatory Factor Analysis Output Model for
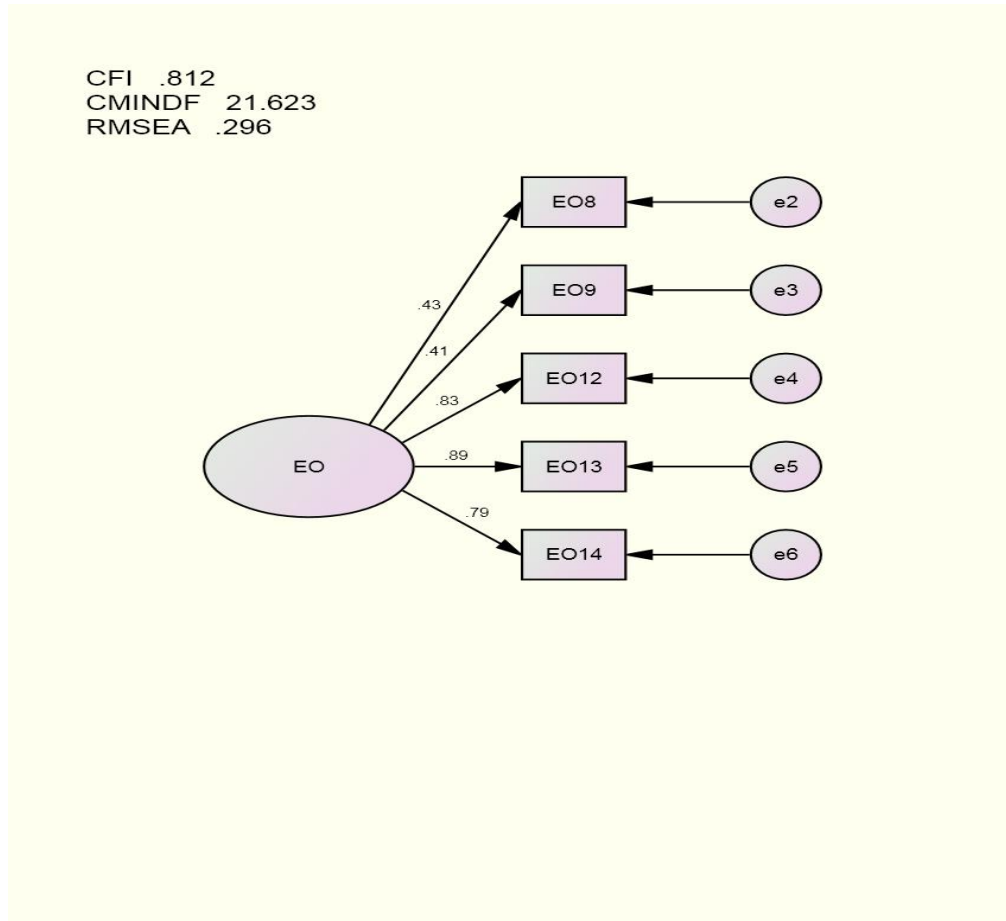
Entrepreneurial Orientation

Figure 6.4 indicates that the measurement model indices of the fourth order confirmatory factor analysis output model still did not adequately fit the model. The CFI = 0.812, CMIN/DF = 21.623, and RMSEA = 0.296. Modification of the model was performed by using modification indices in order to obtain a better-fitting model with the covariance of e2 with e3.

Figure 6.5: Final Order Confirmatory Factor Analysis Output Model for

Entrepreneurial Orientation
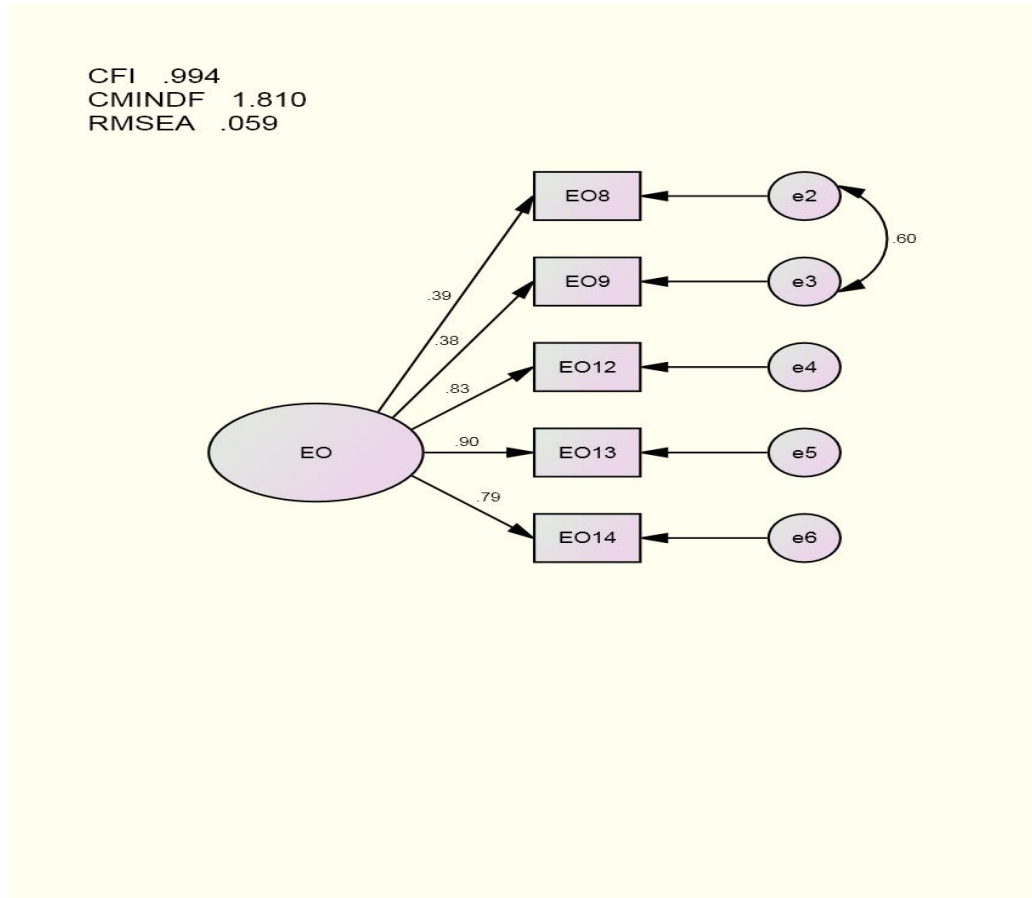
As presented in Figure 6.5, the final measurement model consists of five items; EO8, EO9, EO12, EO13, and EO14 that improved the goodness of fit indices. The modified model showed a better fit to the data, with CFI = 0.994, CMIN/DF = 1.810, and RMSEA = 0.059. Therefore these indices were sufficient and within the recommended level. Table 6.14 below provides a summary of the measures of model fit over the five confirmatory factor analysis iterations.

**Table 6.14: Entrepreneurial Orientation Model Fit Statistics (n = 237)**

Scale Content	DF	CFI	CMIN/DF	RMSEA
1st Order EO2, EO8, EO9, EO12, EO13, EO14, EO24, EO25	20	0.712	10.945	0.205
2nd Order EO25 removed	14	0.798	9.752	0.193
3rd Order EO2 removed	9	0.818	12.640	0.222
4rd Order EO24 removed	5	0.812	21.623	0.296
Final Order Covariance of e2 with e3 Final items: EO8, EO9, EO12, EO13, EO14	4	0.994	1.810	0.059

Confirmatory factor analysis for the remaining 5 constructs followed the similar iterative procedures as described above. That is, full measurement models containing all items proposed for each respective constructs were run to start each confirmatory factor analysis. Items with the lowest factor loading were then removed sequentially until acceptable measurement was achieved. In certain cases, modification of the model was performed by using modification indices in order to obtain a better-fitting model. These remaining confirmatory factor analyses are summarized as follows:

6.3.3 Measurement Model for Global Mindset

Confirmatory factor analysis for global mindset began with six measurement items; GM2, GM4, GM5, GM9, GM10, and GM12. Three items, GM2, GM9, and GM4, were removed in sequence based on low factor loadings (0.16, 0.25, and 0.33, respectively). The final three items; GM5, GM10, and GM12 for global mindset shown in Figure 6.6 produced a perfect fit because the model is just identified (0 df).

Figure 6.6: Final Order Confirmatory Factor Analysis Output Model for Global Mindset
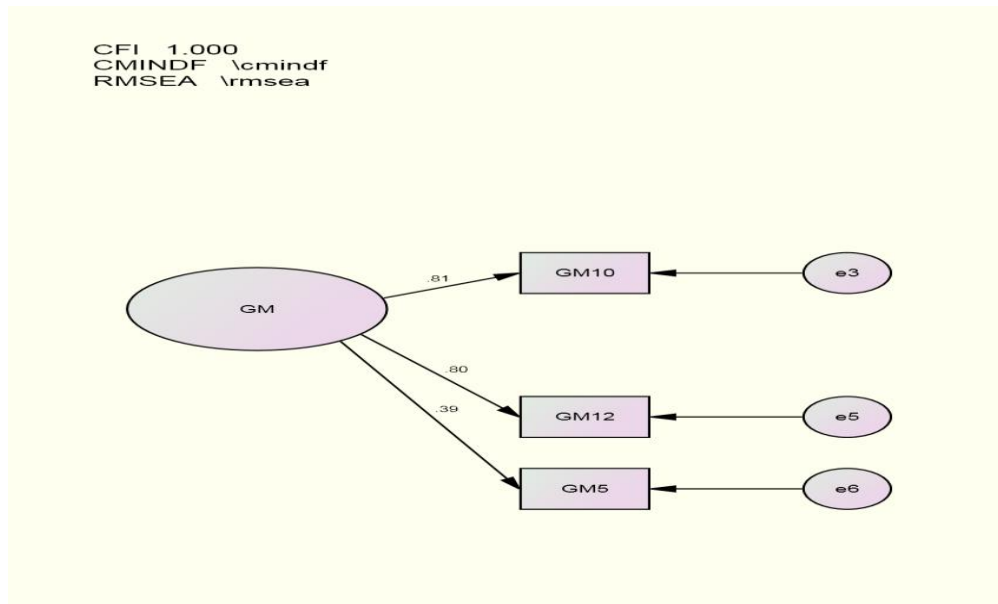
Summary of measures of model fit over the four confirmatory factor analysis iterations are illustrated in Table 6.15 below.

Table 6.15: Global Mindset Model Fit Statistics (n = 237)

Scale Content	DF	CFI	CMIN/DF	RMSEA
1st Order GM2, GM4, GM5, GM9, GM10, GM12	9	0.681	10.960	0.205
2nd Order GM2 removed	5	0.714	16.057	0.253
3rd Order GM9 removed	2	0.707	37.595	0.394
Final Order GM4 removed Final items: GM5, GM10, GM12	0	1.000		

6.3.4 Measurement Model for Network Relationships

Confirmatory factor analysis for network relationships started with six measurement items; NR2, NR3, NR6, NR7, NR8, and NR10. In second order confirmatory factor analysis, NR10 was eliminated due to low factor loadings of 0.39. Confirmatory factor analysis for network relationships ended with a covariance of e1 with e2. The final model indicated in Figure 6.7 had perfect fit with CFI = 1.000, CMIN/DF = 0.141, and RMSEA = 0.000. Therefore, these indices were sufficient and fell within the recommended level.

Figure 6.7: Final Order Confirmatory Factor Analysis Output Model for

Network Relationships
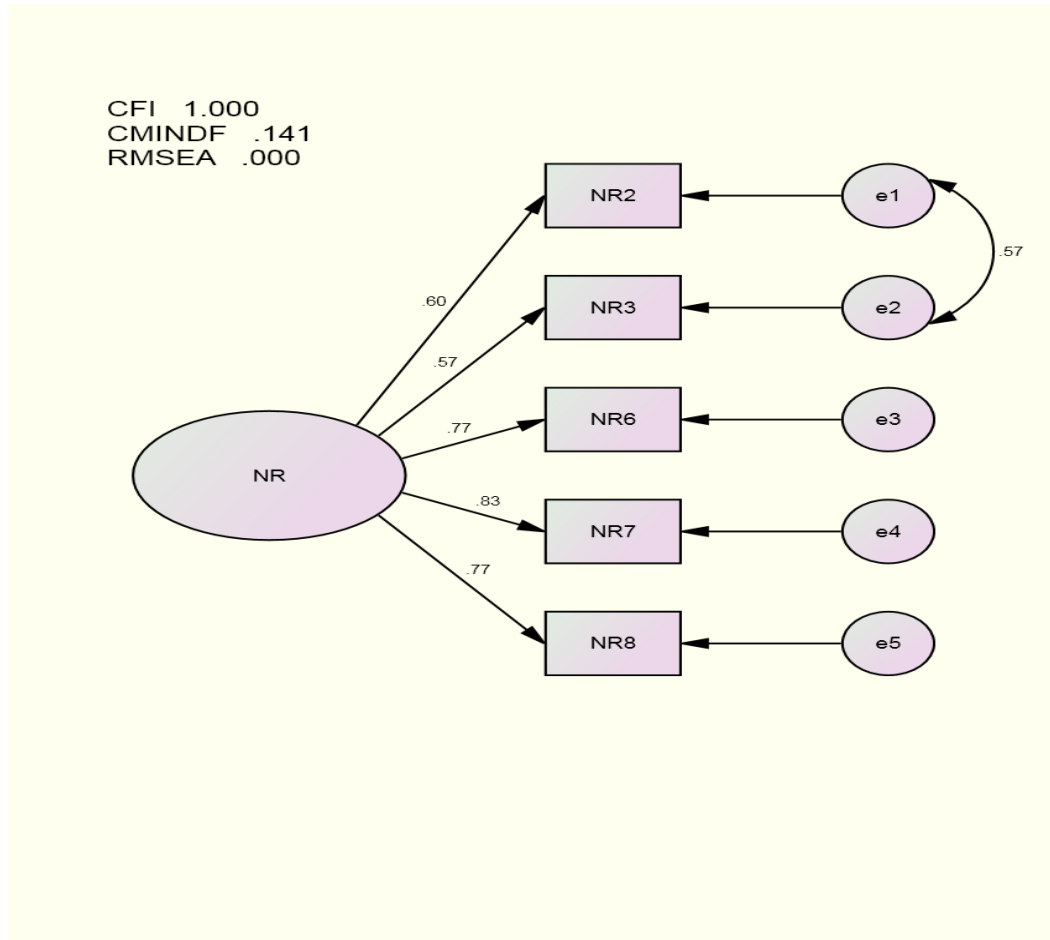
A summary of the measures of model fit for network relationships confirmatory factor analysis is illustrated in Table 6.16 below. The final items for the network relationships model are NR2, NR3, NR6, NR7, and NR8.

Table 6.16: Network Relationships Model Fit Statistics (n = 237)

Scale Content	DF	CFI	CMIN/DF	RMSEA
1st Order NR2, NR3, NR6, NR7, NR8, NR10	9	0.858	10.021	0.196
2nd Order NR10 removed	5	0.858	16.138	0.253
Final Order Covariance of e1 with e2 Final items: NR2, NR3, NR6, NR7, NR8	4	1.000	0.141	0.000

6.3.5 Measurement Model for Government Support

The confirmatory factor analysis for government support began with six measurement items; GS2, GS3, GS6, GS8, GS10, and GS12. GS12 was removed in the first iteration followed by covariance of e1 with e2 and e2 with e3.

As shown in Figure 6.8, the final measurement model consisted of five items; GS2, GS3, GS6, GS8, and GS10 produced a good fit to data, with CFI = 0.996. CMIN/DF = 1.881, and RMSEA = 0.061. Therefore, these indices were sufficient and fell within the recommended level. Table 6.17 gives the summary measures of model fit for the government support confirmatory factor analysis.

Figure 6.8: Final Order Confirmatory Factor Analysis Output Model for

Government Support
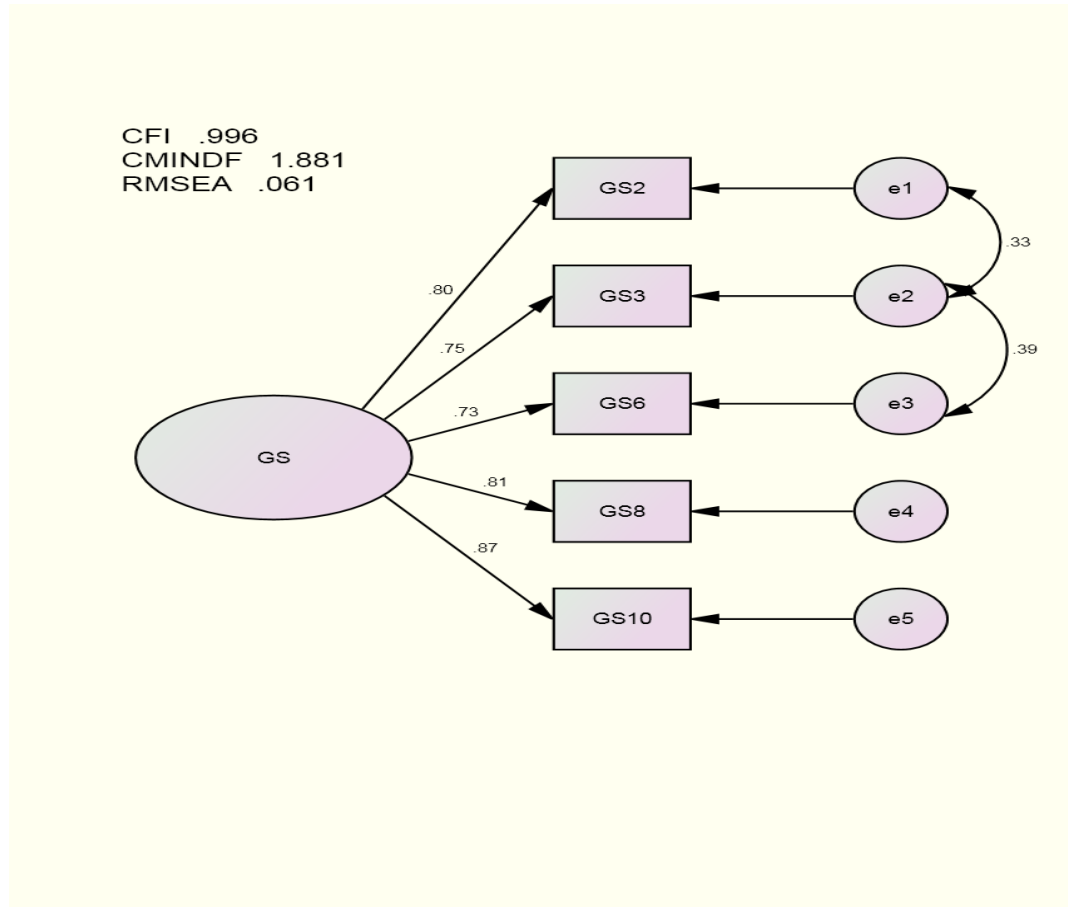
Table 6.17: Government Support Model Fit Statistics (n = 237)

Scale Content	DF	CFI	CMIN/DF	RMSEA
1st Order GS2, GS3, GS6, GS8, GS10, GS12	9	0.966	3.797	0.109
2nd Order GS12 removed	5	0.985	2.499	0.080
Final Order Covariance of e1 with e2 and e2 with e3 Final items: GS2, GS3, GS6, GS8, GS10	3	0.996	1.881	0.061

6.3.6 Measurement Model for Internationalization

The confirmatory factor analysis for internationalization started with four items; INT1, INT2, INT3, and INT4 with covariance of e3 with e4. The final measurement model had a perfect fit with CFI = 1.000, CMIN/DF = 0.703, and RMSEA = 0.000 (refer to Figure 6.9 and Table 6.18). Therefore, these indices were sufficient and fell within the recommended levels.

Figure 6.9: Final Order Confirmatory Factor Analysis Output Model for Internationalization
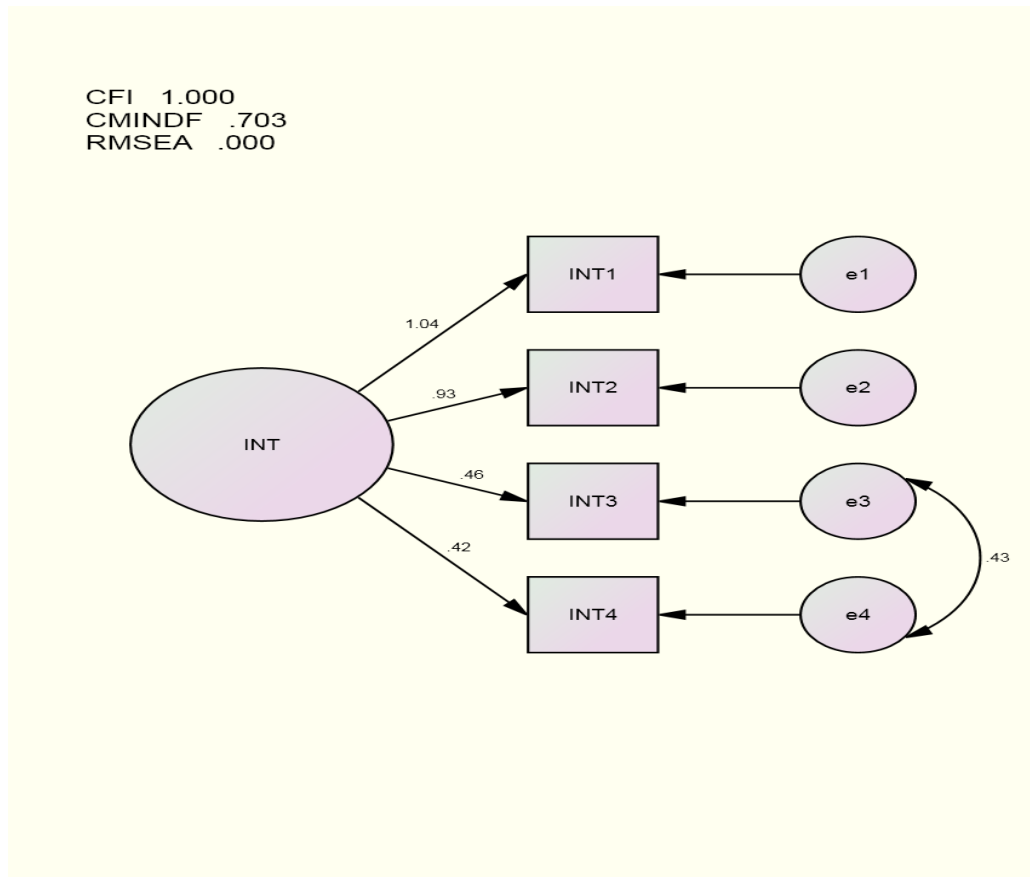
Table 6.18: Internationalization Model Fit Statistics (n = 237)

Scale Content	DF	CFI	CMIN/DF	RMSEA
1st Order INT1, INT2, INT3, INT4	2	0.944	23.930	0.312
2nd Order Covariance of e3 with e4 Final items: INT1, INT2, INT3, INT4	1	1.000	0.703	0.000

6.3.7 Measurement Model for Financial performance

As indicated in Figure 6.10, the final three measurement models for financial performance produced a perfect fit because the model was just identified (0 df). The standardized factor loadings for the final measurement model, ranging from 0.82 to 0.95, were all high and above the recommended level of 0.5.

Figure 6.10: Final Order Confirmatory Factor Analysis Output Model for Financial Performance

6.3.8 Measurement Model for Non-Financial performance

The confirmatory factor analysis for non-financial performance began with seven measurement items; NFP5, NFP6, NFP7, NFP8, NFP9, NFP10, and NFP11 with covariance of e2with e3. The final measurement model had a good fit with CFI = 0.994, CMIN/DF = 1.704, and RMSEA = 0.055 (refer to Figure 6.11 and Table 6.19). Therefore, these indices were sufficient and within the recommended level.

**Figure 6.11: Final Order Confirmatory Factor Analysis Output Model for Non-Financial Performance**
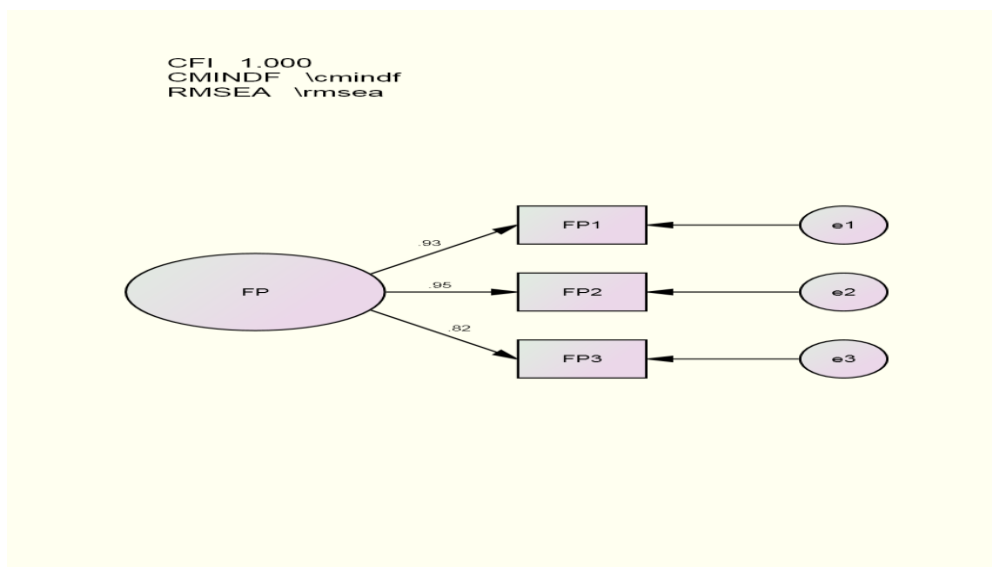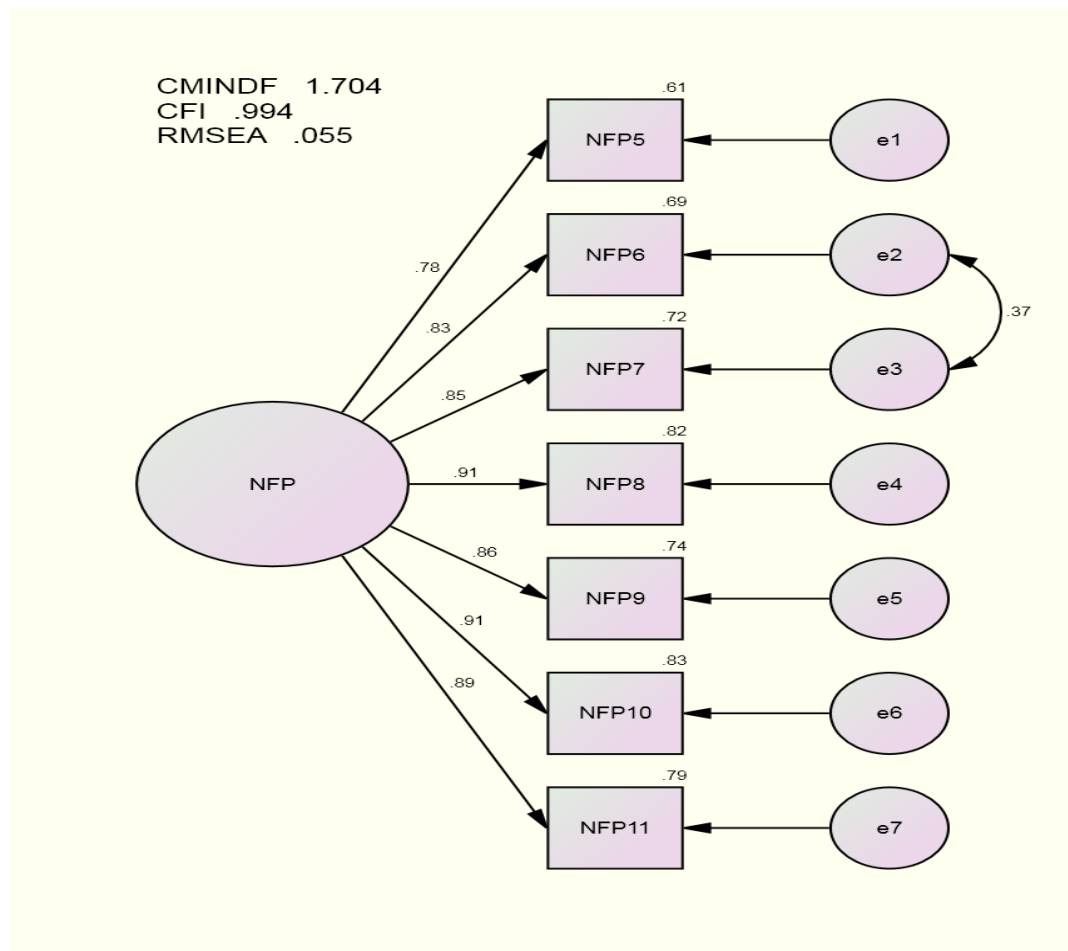
Table 6.19: Non-Financial performance Model Fit Statistics (n = 237)

Scale Content	DF	CFI	CMIN/DF	RMSEA
1st Order NFP5, NFP6, NFP7, NFP8, NFP9, NFP10, NFP11	14	0.978	3.533	0.104
2nd Order Covariance of e2 with e3 Final items: NFP5, NFP6, NFP7, NFP8, NFP9, NFP10, NFP11	13	0.994	1.704	0.055

6.3.9 Reliability Assessment

Reliability analysis was conducted for the final items of independent, mediating and dependent variables of this study. The results obtained are presented in Table 6.20 below.

Table 6.20: Results of Reliability Analysis

Variable of Items	Number of Items	Cronbach Alpha	Items Deleted
Entrepreneurial Orientation	5	0.821	0
Global Mindset	3	0.700	0
Network Relationships	5	0.853	0
Government Support	5	0.905	0
Internationalization	4	0.823	0
Financial Performance	3	0.926	0
Non-Financial Performance	7	0.954	0

From Table 6.20, it can be observed that each of the reliability coefficients ranges from 0.700 to 0.954, which concur with Nunnally's (1978) minimum acceptable level of 0.70.

6.4 The Structural Model

After all the constructs in the measurement model were validated and achieved satisfactory fit (Anderson and Gerbing, 1988; Hair et al., 2006; Kline, 2005), the structural model can then be rested and presented for the analysis. The structural model intends to specify which latent constructs directly or indirectly influence the values of other latent constructs in the model. Therefore, the main principle of the structural model in this study is to test the specific hypotheses with the intention to answer the research questions highlighted in Chapter One.

In order to evaluate the structural model, goodness-of-fit indices were inspected to assess if the hypothesized structural model fits the data. In cases when the hypothesized structural model does not fit the data, the model needs to re-specify until it achieves an acceptable statistical fit and indicates a theoretically meaningful representation of the observed data (Anderson and Gerbing, 1988; Hair et al., 2006; kline, 2005).

Figure 6.12: The Path Diagram of Hypothesized Mediated Full Structural
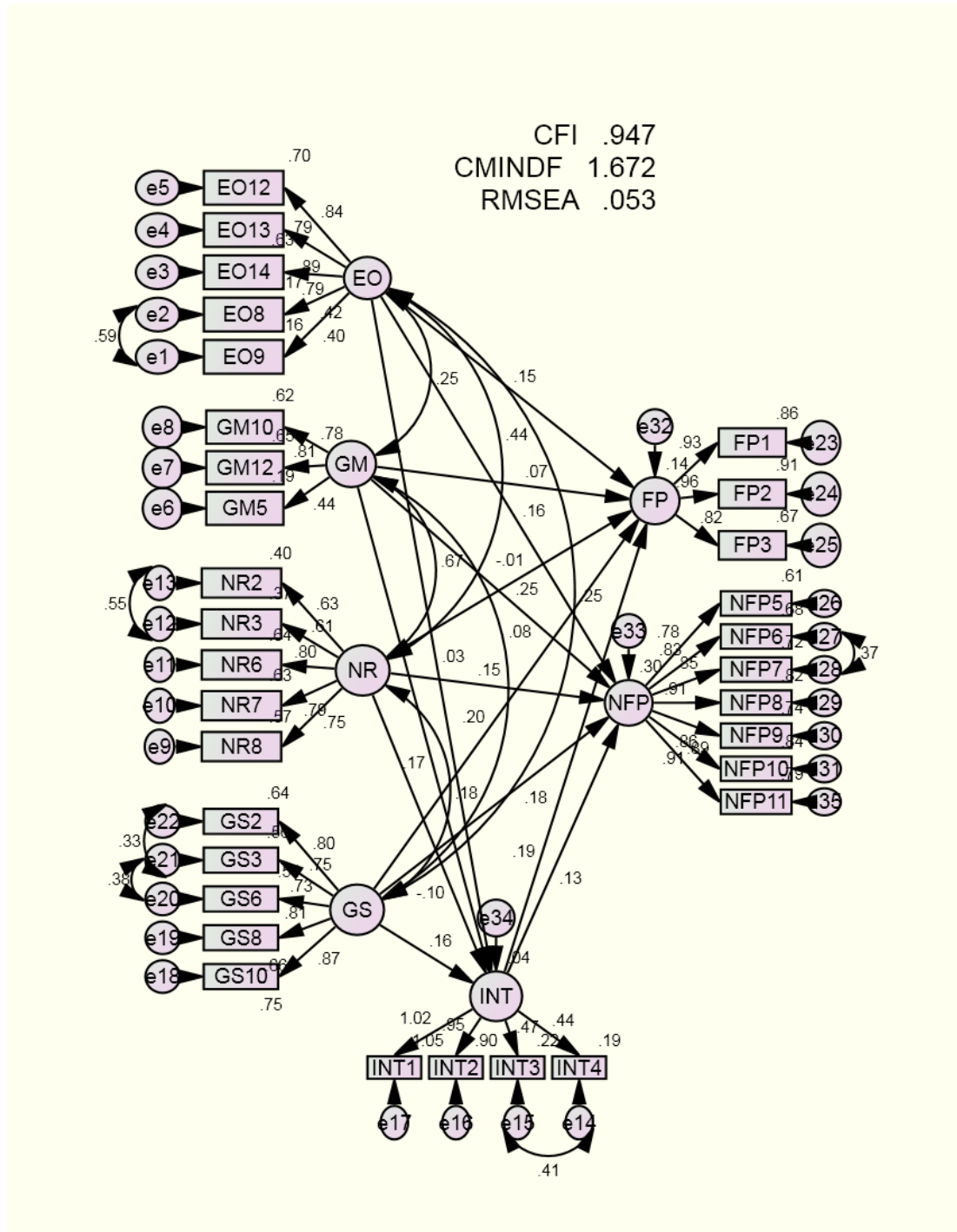
Model

In structural equation modeling, the hypothesized relationships can be presented in the form of a path diagram. In Figure 6.12, the structural equation modeling diagram for this study consists of six main constructs; entrepreneurial orientation, global mindset, network relationships, government support, internationalization and firm performance in terms of financial performance and non-financial performance, with the arrows representing relationships between the variables.

The single-headed arrows in the diagram represent linear dependencies indicating the extent to which one variable (construct) is dependent on another. For example, the arrow connecting entrepreneurial orientation with internationalization represents a direct relationship that is hypothesized between these two variables. Correlations or covariance between the variables are represented as double-headed arrows, as indicated in the relationship between entrepreneurial orientation, global mindset, network relationships, and government support. No causal path is hypothesized for the double-headed arrows but a relationship between the variables is assumed. Measurement errors have been represented as (e) and enclosed in small circles.

The path diagram of the hypothesized full structural model produced the indices within the acceptable recommended value. The CFI = 0.947, CMIN/DF =

1.672 and RMSEA = 0.053. Therefore, it can be concluded that the fit of the proposed model is reasonably good.

6.4.1 Mediation Test

To examine the mediating role of internationalization on the relationships between entrepreneurial orientation, global mindset, network relationships, government support, and firm performance, analysis for this study followed the four steps recommended by Baron and Kenny (1986) and Judd and Kenny (1981). Figure 6.13 and 6.14 illustrates the unmediated and mediated models respectively and enhances understanding of the mediation testing process.

Figure 6.13: The Unmediated Model
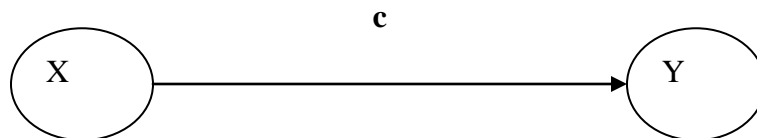
Figure 6.14: The Mediated Model
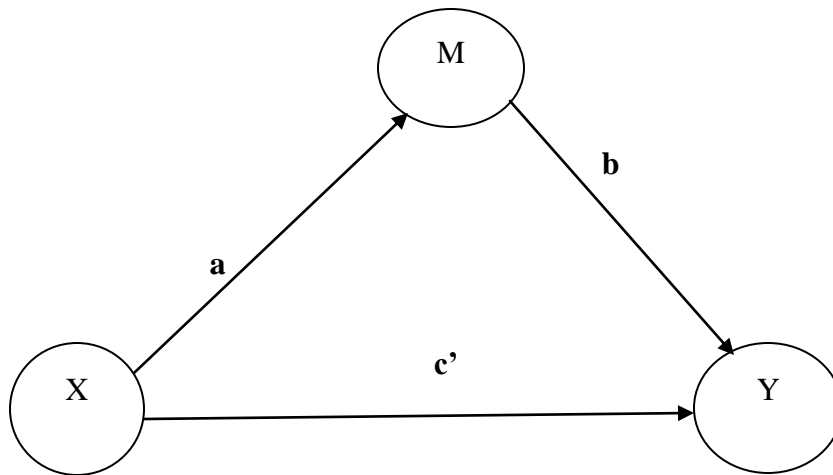
Step 1: The first step shows that the initial variable (X) is correlated with the outcomes (Y). By conducting this, path c (refer to Figure 6.13) will be estimated and tested. In this study, entrepreneurial orientation, global mindset, network relationships, and government support are associated with firm performance.

Step 2: The second step shows that initial variable (X) is correlated with the mediator (M). As such, path a (refer to Figure 6.14) will be estimated and tested. This step treats the mediator (internationalization) as an outcome variable.

Step 3: The third step shows that the mediator (M) affects the outcome variable (Y). As a result, path b (refer to Figure 6.14) will be estimated and tested. In this step, X and M will be treated as predictors and Y will be treated as the criterion.

Step 4: To determine that the mediator (M) completely mediated the X-Y relationships, the effect of X on Y controlling for M should be zero (parameter estimate of path c' equals 0). The mediator partially mediates the X-Y relationships if the parameter estimates of path c' is smaller than the parameter estimates of path c. The effects b and c' in both step 3 and step 4 are estimated in the similar equation.

According to Baron and Kenny (1986) these four steps should be stated in terms of zero and non-zero coefficients but not in terms of statistical significance. Furthermore, they stated that trivially small coefficients can be statistically significant with large samples sizes and large coefficients can be non-significant with small sample sizes. As such, although statistical significance is informative, one should not define theses four steps in terms of statistical significance and should utilize instead other information as part of statistical decision making.

Figure 6.15 below shows the unmediated model that describes the association between entrepreneurial orientation, global mindset, network relationships, government support, and firm performance. The model produced the indices within the acceptable recommended value. The CFI = 0.942, CMIN/DF = 1.821 and RMSEA = 0.059. Therefore, it can be concluded that the fit of the proposed model is reasonably good.

Figure 6.15: The Path Diagram of Hypothesized Unmediated Full Structural
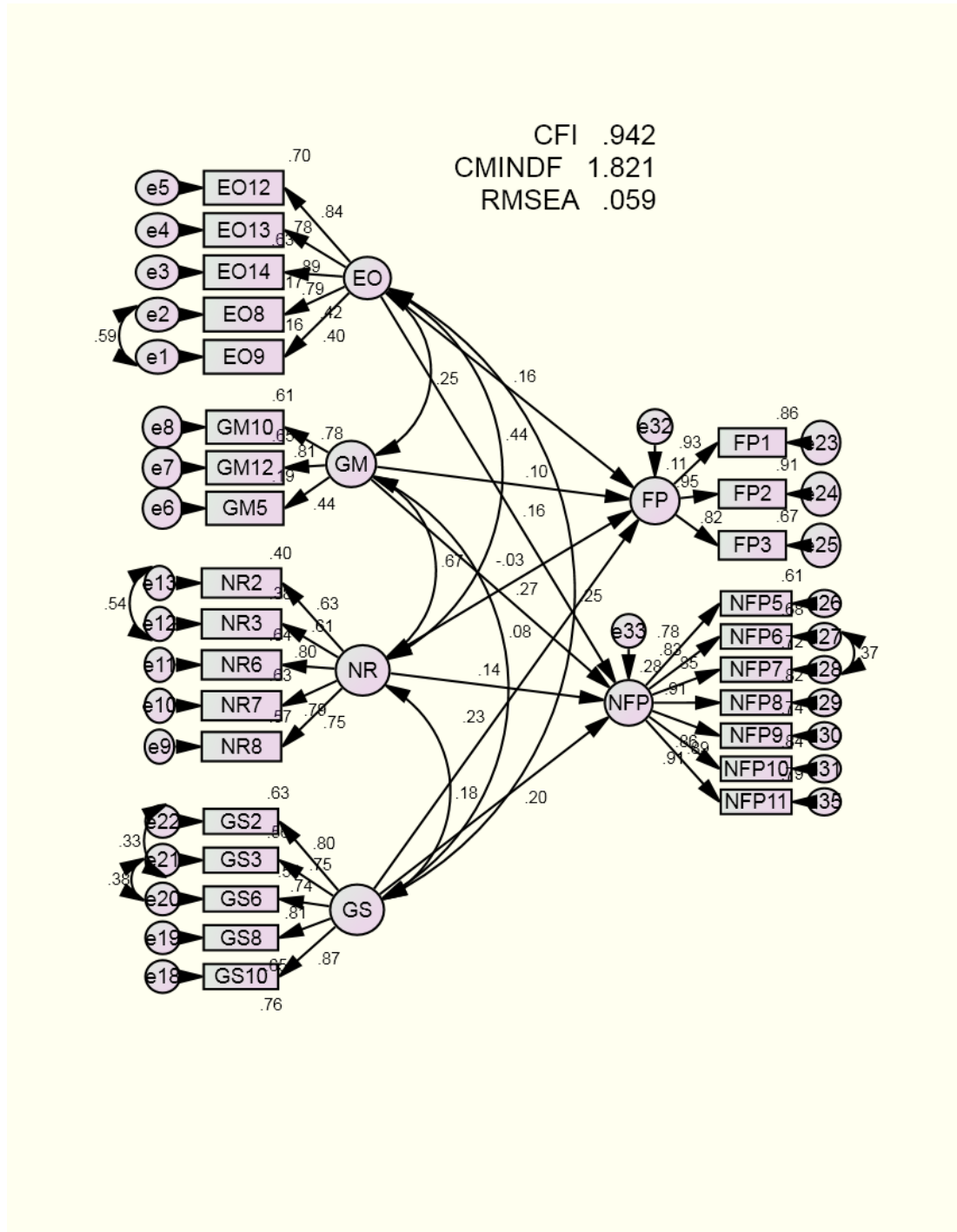
Model

6.5 Hypothesis Testing

Testing of the model hypothesized relationships involves evaluation of each of the model path coefficients for significance given an acceptable model fit. Similar to regression, the null hypothesis states that the path coefficient is equal to zero and is tested for statistical significance. If the path coefficient is statistically significant, there is support for the hypothesized predicted relationship.

The results of the structural coefficients exhibited in Figure 6.12 are used to examine the hypotheses. Table 6.21 provides a summary of the parameter estimates, standard error, critical ratio, and p-value for each hypothesized path.

Table 6.21: Regression Weights Default model

Hypothesis	Path	Estimate	S.E	C.R	P
H1	EO ---> INT	0.044	0.126	0.352	0.725
H2	GM ---> INT	0.279	0.180	1.552	0.121
H3	NR ---> INT	-0.086	0.102	-0.852	0.394
H4	GS ---> INT	0.077	0.034	2.232	0.026
H5a	EO ---> FP	0.492	0.265	1.853	0.064
H6a	GM ---> FP	0.209	0.348	0.601	0.548
H7a	NR ---> FP	-0.023	0.203	-0.112	0.911
H8a	GS ---> FP	0.190	0.067	2.828	0.005
H9a	INT ---> FP	0.377	0.132	2.865	0.004
H9b	INT ---> NFP	0.165	0.077	2.127	0.033
H5b	EO ---> NFP	0.335	0.163	2.050	0.040
H6b	GM ---> NFP	0.516	0.226	2.287	0.022
H7b	NR ---> NFP	0.179	0.124	1.442	0.149
H8b	GS ---> NFP	0.111	0.041	2.719	0.007

6.5.1 The Effects of Entrepreneurial Orientation, Global Mindset, Network Relationships and Government Support on Internationalization

H1: Entrepreneurial orientation relate positively with internationalization.

The path that connects entrepreneurial orientation to internationalization yields a β-value = 0.044, critical ratio = 0.352 which is not significant at $p<0.05$ level (two-tailed). This means that entrepreneurial orientation has no significant relationship with internationalization. Hence H1 is not supported in this study.

H2: Global mindset relate positively with internationalization.

The link between global mindset and internationalization shown in Figure 6.11 generated a β-value = 0.279, critical ratio = 1.552 which is not significant at $p<0.05$ level (two-tailed). The results therefore do not support H2.

H3: Network relationships relate positively with internationalization.

The path that connects network relationships to internationalization yields a β-value = -0.086, critical ratio = -0.852 which is not significant at $p<0.05$ level (two-tailed) and in the opposite direction. This indicates that network relationships do not have a significant relationship with internationalization. Therefore, H3 is not supported in this study.

H4: Government support relates positively with internationalization.

The β-value for the path from government support to internationalization is 0.077, critical ratio = 2.232 and this is significant at p<0.05 level (two-tailed). Thus, H4 is supported indicating a significant positive relationship between government support and internationalization.

6.5.2 The Effects of Entrepreneurial Orientation, Global Mindset, Network Relationships and Government Support on Firm Performance

H5a: Entrepreneurial orientation relates positively with firm financial performance.

Results indicate that the path from entrepreneurial orientation to firm financial performance produced a β-value = 0.492, critical ratio = 1.853 which is not significant at p<0.05 level (two-tailed). Therefore H5a is not supported.

H5b: Entrepreneurial orientation relates positively with firm non-financial performance.

The path from entrepreneurial orientation to firm non-financial performance produced a β-value = 0.335, critical ratio = 2.050 which is significant at p<0.05 level (two-tailed). Thus H5b is supported indicating a significant positive relationship between entrepreneurial orientation and firm non-financial performance.

H6a: Global mindset relate positively with firm financial performance.

The path that connects global mindset to firm financial performance yields a β-value = 0.209, critical ratio = 0.601 which is not significant at p<0.05 level (two-tailed). This means that global mindsets do not have a significant relationship with firm financial performance. Hence, H6a is not supported in this study.

H6b: Global mindset relate positively with firm non-financial performance.

The path that connects global mindset to firm non-financial performance yields a β-value = 0.516, critical ratio = 2.287 which is significant at p<0.01 level (two-tailed). This means that global mindset has a significant positive relationship with firm non- financial performance. Hence, H6b is supported in this study.

H7a: Network relationships relate positively with firm financial performance.

The link between network relationships and firm financial performance generated a β-value = -0.023, critical ratio = -0.112 which is not significant at p<0.05 level (two-tailed) and the relationship is not in the hypothesized direction. The results therefore do not support H7a.

H7b: **Network** **relationships** **relate** **positively** **with** **firm** **non-financial**
        performance.

The link between network relationships and firm non-financial performance generated a β-value = 0.179, critical ratio = 1.442 which is not significant at p<0.05 level (two-tailed). The results therefore do not support H7b.

H8a: Government support relates positively with firm financial performance.

The β-value for the path from government support to firm financial performance is 0.190, critical ratio = 2.828 and this is significant at p<0.01 level (two-tailed). Thus, H8a is supported indicating a significant positive relationship between government support and firm financial performance.

H8b: Government support relates positively with firm non-financial
        performance.

The β-value for the path from government support to firm non-financial performance is 0.111, critical ratio = 2.719 and this is significant at p<0.01 level (two-tailed). Thus, H8b is supported indicating a significant positive relationship between government support and firm non-financial performance.

6.5.3 The Effects of Internationalization on Firm Performance

H9a: Internationalization relates positively with firm financial performance.

The path that connects internationalization to firm financial performance yields a β-value = 0.377, critical ratio = 2.865 which is significant at p<0.01 level (two-tailed). This means that internationalization has a significant positive relationship with firm financial performance. Thus, H9a is supported in this study.

H9b: Internationalization relates positively with firm non-financial performance.

The path that connects internationalization to firm non-financial performance yields a β-value = 0.165, critical ratio = 2.127 which is significant at p<0.05 level (two-tailed). This means that internationalization has a significant positive relationship with firm non-financial performance. Thus, H9b is supported in this study.

6.5.4 The Mediating Effects of Internationalization on Entrepreneurial Orientation, Global Mindset, Network Relationships, Government Support and Firm Performance

To answer this question, analysis followed the four steps suggested by Baron and Kenny (1986) and Judd and Kenny (1981). Figure 6.12 and Figure 6.15 show the mediated and the unmediated models respectively and the summary of the standardized paths for analyzing mediation hypotheses are presented in Table 6.22.

Table 6.22: Summary of Standardized Paths for Step 4

Model	Path a	Path b	Path c'	Path c
EO-INT-FP	0.03	0.19	0.15	0.16
EO-INT-NFP	0.03	0.13	0.15	0.16
GM-INT-FP	0.17	0.19	0.07	0.10
GM-INT-NFP	0.17	0.13	0.25	0.27
NR-INT-FP	-0.10	0.19	-0.01	-0.03
NR-INT-NFP	-0.10	0.13	0.14	0.15
GS-INT-FP	0.16	0.19	0.20	0.23
GS-INT-NFP	0.16	0.13	0.18	0.20

H10a: Internationalization mediates the relationship between entrepreneurial orientation and firm financial performance.

Comparisons of Figure 6.12 and 6.15 shows that internationalization partially mediates the relationship between entrepreneurial orientation and firm financial performance with the parameter estimate of path c' that equals 0.15 which is smaller than parameter estimate of 0.16 for path c. Therefore, H10a is supported in this study.

H10b: Internationalization mediates the relationship between entrepreneurial orientation and firm non-financial performance.

The parameter estimate of path c' that equals 0.15 which is smaller than parameter estimate of 0.16 for path c indicated that internationalization partially mediates the relationship between entrepreneurial orientation and firm non-financial performance. Thus, H10b is supported in this study.

H11a: Internationalization mediates the relationship between global mindset and firm financial performance.

The parameter estimate of path c' that equals 0.07 which is smaller than parameter estimate of 0.10 for path c indicated that internationalization partially mediates the relationship between global mindset and firm financial performance. Thus, H11a is supported in this study.

H11b: Internationalization mediates the relationship between global mindset and firm non-financial performance.

The parameter estimate of path c' that equals 0.25 which is smaller than parameter estimate of 0.27 for path c indicated that internationalization partially mediates the relationship between global mindset and firm non-financial performance. Thus, H11b is supported in this study.

H12a: Internationalization mediates the relationship between network relationships and firm financial performance.

The parameter estimate of path c' that equals -0.01 which is bigger than parameter estimate of -0.03 for path c indicated that internationalization does not mediate the relationship between network relationships and firm financial performance. Therefore, H12a is not supported in this study.

H12b: Internationalization mediates the relationship between network relationship and firm non-financial performance.

The parameter estimate of path c' that equals 0.14 which is smaller than parameter estimate of 0.15 for path c indicated that internationalization partially mediates the relationship between network relationships and firm non-financial performance. Therefore, H12b is supported in this study.

H13a: Internationalization mediates the relationship between government support and firm financial performance.

The parameter estimate of path c' that equals 0.20 which is smaller than parameter estimate of 0.23 for path c indicated that internationalization partially mediates the relationship between government support and firm financial performance. Thus, H13a is supported in this study.

H13b: Internationalization mediates the relationship between government support and firm non-financial performance.

The parameter estimate of path c' that equals 0.18 which is smaller than parameter estimate of 0.20 for path c indicated that internationalization partially mediates the relationship between government support and firm non-financial performance. Thus, H13b is supported in this study.

The above analysis has facilitated the testing of all twenty two hypotheses formulated for this study. The summary of the results are presented in Table 6.23.

Table 6.23: Summary of Hypotheses and Results.

Hypothesis	Results
H1: Entrepreneurial orientation relates positively with internationalization.	Not supported
H2: Global mindset relate positively with internationalization.	Not supported
H3: Network relationships relate positively with internationalization.	Not supported
H4: Government support relates positively with internationalization.	Supported
H5a: Entrepreneurial orientation relates positively with firm financial performance.	Not supported
H5b: Entrepreneurial orientation relates positively with firm non-financial performance.	Supported
H6a: Global mindset relate positively with firm financial performance.	Not supported
H6b: Global mindset relate positively with firm non-financial performance.	Supported
H7a: Network relationships relate positively with firm financial performance.	Not supported
H7b: Network relationships relate positively with firm non-financial performance.	Not supported
H8a: Government support relates positively with firm financial performance.	Supported
H8b: Government support relates positively with firm non-financial performance.	Supported
H9a: Internationalization relates positively with firm financial performance.	Supported
H9b: Internationalization relates positively with firm non-financial performance.	Supported
H10a: Internationalization mediates the relationship between entrepreneurial orientation and firm financial performance.	Supported
H10b: Internationalization mediates the relationship between entrepreneurial orientation and firm non-financial performance.	Supported
H11a: Internationalization mediates the relationship between global mindset and firm financial performance.	Supported
H11b: Internationalization mediates the relationship between global mindset and firm non-financial performance.	Supported
H12a: Internationalization mediates the relationship between network relationship and firm financial performance.	Not supported
H12b: Internationalization mediates the relationship between network relationship and firm non-financial performance.	Supported
H13a: Internationalization mediates the relationship between government support and firm financial performance.	Supported
H13b: Internationalization mediates the relationship between government support and firm non-financial performance.	Supported

6.6 Additional Analysis: t-test and a one-way analysis of variance (ANOVA)

Additional analysis was conducted in order to determine whether there was a significant difference between two or more than two groups or levels of an independent variable. A t-test and one-way analysis of variance (ANOVA) was used to discover any differences among sub-samples in this study. The results of the t-test and a one-way analysis of variance (ANOVA) are presented in Tables 6.24 and 6.31 below.

6.6.1 Comparison by Business Status

Differences between bumiputera and non-bumiputera SMEs in terms of entrepreneurial orientation, global mindset, network relationships, government support, internationalization and firm financial and non-financial performance were determined through t-tests, the results of which are shown in Table 6.24. It was found that there were no significant differences between the two sub-groups for all six variables.

The possible explanation for these findings might be that the majority of the SMEs of this study were new ventures with business operations of less than 10 years (50.7%). They were also headed by the younger generation with similar higher education backgrounds and entrepreneurial experience. In fact, Arora et al. (2004) observed that younger people are willing to change, have lower levels of rigidity and

are exposed to globalization and international issues. Their decision to launch a new venture may be influenced by job dissatisfaction and also previous technical and industry experience (Hisrich et al., 2010). In fact, the emphasis on corporate entrepreneurship in some organizations in Malaysia encourages employees to think and act entrepreneurially.

Furthermore, under the administration of the current Prime Minister, the One Malaysia Concept advocates fair and equal treatment of all Malaysians. This translates into equal business opportunities and support provided by the government to bumiputera and non-bumiputera SMEs in Malaysia resulting in no significant differences between the two sub-groups.

Table 6.24: Summary of t-test Results by Business Status

Business status	N	Mean	Std. Deviation	Std. Error Mean	t	df	Sig. (2-tailed)
Entrepreneurial Orientation							
Bumiputera	143	4.3902	0.79800	0.06673	1.294	235	0.197
Non-bumiputera	94	4.2532	0.79686	0.08219			
Global Mindset							
Bumiputera	143	4.8205	0.68264	0.05708	0.731	235	0.465
Non-bumiputera	94	4.7482	0.83055	0.08566			
Network Relationships							
Bumiputera	143	4.6671	0.71560	0.05984	0.497	235	0.619
Non-bumiputera	94	4.6213	0.66071	0.06815			
Government Support							
Bumiputera	143	3.6056	1.16497	0.09742	1.623	235	0.106
Non-bumiputera	94	3.3574	1.12980	0.11653			
Internationalization							
Bumiputera	143	2.9309	1.06559	0.08911	-1.225	235	0.222
Non-bumiputera	94	3.1011	1.01406	0.10459			
Financial Performance							
Bumiputera	143	3.4172	1.19432	0.09987	1.182	235	0.238
Non-bumiputera	94	3.2234	1.29366	0.13343			
Non-Financial Performance							
Bumiputera	143	4.5644	0.89107	0.07451	0.173	235	0.863
Non-bumiputera	94	4.5441	0.88045	0.09081			

6.6.2 Comparison by Industry

A series of ANOVA tests were conducted to test the differences in industries across several factors namely, entrepreneurial orientation, global mindset, network relationships, government support, internationalization and firm financial and non-financial performance. It was observed that there was a significant difference in the levels of global mindset among the industries, F (2, 234) = 3.675, at $p < 0.05$ level. On average, manufacturing sector levels of global mindset (M = 4.8776, SE = 0.06) were higher than the services sector (M = 4.8452, SE = 0.07) and agricultural sector (M = 4.5576, SE = 0.12). With regards to entrepreneurial orientation, network relationships, government support, internationalization and firm financial and non-financial performance, the mean differences between groups were not significant.

It was found that Malaysian SMEs exporters were mainly from the manufacturing sectors (57.6%) follow by services (40.6%) and agriculture (1.8%). As of 2005, the major export destinations for manufactured products were the ASEAN countries (27.2%), the USA (23.4%), the European Union (10.4%), Japan (7.4%), Hong Kong (7%), People's Republic of China (6.1%) while the remaining 8.5% represented the rest of the world (EPU, 2006). Having their operations in other countries had resulted in the manufacturing SMEs facing many challenges in the competitive global business environment which in turn, made them more global minded entrepreneurs as compared to the other sectors.

Table 6.25: Summary of ANOVA Results by Industry

Industry	N	Mean	Std. Deviation	Std. Error Mean	F	Df1	Df2	sig
Entrepreneurial Orientation								
Manufacturing	98	4.3000	0.84670	0.08553	0.636	2	234	0.530
Services	84	4.4143	0.76223	0.08317				
Agriculture	55	4.2800	0.76942	0.10375				
Global Mindset								
Manufacturing	98	4.8776	0.65695	0.06636	3.675	2	234	0.027
Services	84	4.8452	0.66555	0.07262				
Agriculture	55	4.5576	0.94293	0.12714				
Network Relationships								
Manufacturing	98	4.6918	0.71805	0.07253	2.364	2	234	0.096
Services	84	4.7143	0.52069	0.05681				
Agriculture	55	4.4727	0.84622	0.11410				
Government Support								
Manufacturing	98	3.4592	1.09966	0.11108	2.735	2	234	0.067
Services	84	3.3619	1.29335	0.14112				
Agriculture	55	3.8145	0.97741	0.13179				
Internationalization								
Manufacturing	98	3.0421	1.03638	0.10469	2.603	2	234	0.076
Services	84	2.8095	1.02867	0.11224				
Agriculture	55	3.2091	1.06177	0.14317				
Financial Performance								
Manufacturing	98	3.1973	1.27612	0.12891	2.589	2	234	0.077
Services	84	3.2976	1.19573	0.13046				
Agriculture	55	3.6606	1.18546	0.15985				
Non-Financial Performance								
Manufacturing	98	4.5962	0.84129	0.08498	0.179	2	234	0.836
Services	84	4.5374	0.89300	0.09743				
Agriculture	55	4.5143	0.95973	0.12941				

6.6.3 Comparison by Firm Size

Comparison by annual total sales revealed that there was a significant difference in the levels of internationalization among the different categories of SMEs in the manufacturing sector, F (2, 95) = 4.692, at $p < 0.05$ level. On average, levels of internationalization in the medium category (M = 3.3080, SE = 0.14) were higher than in the small category (M = 2.7159, SE = 0.15) and the micro category (M = 2.5833, SE = 0.23). With regards to entrepreneurial orientation, global mindset, network relationships, government support, and firm financial and non-financial performance, the mean differences between groups were not significant.

In the agricultural and services sectors, there was a significant difference in the levels of internationalization among the different categories of SMEs, F (2, 136) = 5.354, at $p < 0.05$ level. On average, the levels of internationalization in the medium category (M = 3.2104, SE = 0.12) was higher than that in the small category (M = 2.7162, SE = 0.15) and the micro category (M = 2.5380, SE = 0.18). In addition, there was also a significant difference in the levels of non-financial performance among the different categories of SMEs in the services and agricultural sectors, F (2, 136) = 3.123, at $p < 0.05$ level. On average, the non-financial performance in the medium category (M = 4.6944, SE = 0.10) were higher than in the micro category (M = 4.3478, SE = 0.13) and small category (M = 4.2857, SE = 0.16). In terms of entrepreneurial orientation, global mindset, network relationships,

government support, and firm non-financial performance, the mean differences between groups were not significant.

Table 6.26: Summary of ANOVA Results by Annual Total Sales (Manufacturing)

Category	N	Mean	Std. Deviation	Std. Error Mean	*F*	Df1	Df2	sig
Entrepreneurial Orientation								
Medium	56	4.4107	0.81031	0.10828	2.999	2	95	0.055
Small	33	4.0242	0.83480	0.14532				
Micro	9	4.6222	0.93512	0.31171				
Global Mindset								
Medium	56	4.9643	0.58146	0.07770	2.508	2	95	0.087
Small	33	4.6768	0.70457	0.12265				
Micro	9	5.0741	0.81271	0.27090				
Network Relationships								
Medium	56	4.8214	0.65580	0.08764	2.440	2	95	0.093
Small	33	4.4788	0.75488	0.13141				
Micro	9	4.6667	0.84261	0.28087				
Government Support								
Medium	56	3.4964	1.00181	0.13387	1.625	2	95	0.202
Small	33	3.2545	1.21581	0.21164				
Micro	9	3.9778	1.16809	0.38936				
Internationalization								
Medium	56	3.3080	1.09932	0.14690	4.692	2	95	0.011
Small	33	2.7159	0.87292	0.15196				
Micro	9	2.5833	0.70434	0.23478				
Financial Performance								
Medium	56	3.2321	1.40694	0.18801	0.163	2	95	0.850
Small	33	3.1010	1.10706	0.19271				
Micro	9	3.3333	1.08012	0.36004				
Non-Financial Performance								
Medium	56	4.7347	0.77408	0.10344	2.972	2	95	0.056
Small	33	4.3117	0.92406	0.16086				
Micro	9	4.7778	0.73579	0.24526				

Table 6.27: Summary of ANOVA Results by Annual Total Sales (Services & Agriculture)

Category	N	Mean	Std. Deviation	Std. Error Mean	*F*	Df1	Df2	sig
Entrepreneurial Orientation								
Medium	79	4.4380	0.79748	0.08972	1.804	2	136	0.169
Small	37	4.3622	0.77293	0.12707				
Micro	23	4.0957	0.58735	0.12247				
Global Mindset								
Medium	79	4.8017	0.79083	0.08898	1.023	2	136	0.362
Small	37	4.7027	0.88814	0.14601				
Micro	23	4.5362	0.64149	0.13376				
Network Relationships								
Medium	79	4.6076	0.72143	0.08117	0.611	2	136	0.544
Small	37	4.7081	0.64048	0.10529				
Micro	23	4.5130	0.57152	0.11917				
Government Support								
Medium	79	3.6380	1.19318	0.13424	0.629	2	136	0.535
Small	37	3.4423	1.32341	0.21757				
Micro	23	3.3652	0.98471	0.20533				
Internationalization								
Medium	79	3.2104	1.08909	0.12253	5.354	2	136	0.006
Small	37	2.7162	0.95044	0.15625				
Micro	23	2.5380	0.89778	0.18720				
Financial Performance								
Medium	79	3.5907	1.27540	0.14349	1.469	2	136	0.234
Small	37	3.2793	0.98918	0.16262				
Micro	23	3.1884	1.21782	0.25393				
Non-Financial Performance								
Medium	79	4.6944	0.91265	0.10268	3.123	2	136	0.047
Small	37	4.2857	1.00734	0.16561				
Micro	23	4.3478	0.65157	0.13586				

With regard to the number of full-time employees, statistical tests showed that there was a significant difference in levels of government support in the different categories of SMEs in the services and agricultural sectors, $F(2, 136) = 3.166$, at $p < 0.05$ level. On average, levels of government support in the medium category (M = 3.7703, SE = 0.13) were higher than in the micro category (M = 3.4105, SE = 0.26) and the small category (M = 3.2261, SE = 0.18).

Furthermore, there was also a significant difference in the levels of internationalization among the different categories of the SMEs in the services and agricultural sectors $F(2, 136) = 3.429$, at $p < 0.05$ level. On average, levels of internationalization in the medium category (M = 3.1740, SE = 0.12) were higher than in the micro category (M = 2.8355, SE = 0.24) and the small category (M = 2.6902, SE = 0.13). In terms of entrepreneurial orientation, global mindset, network relationships, and firm financial and non-financial performance, the mean differences between groups were not significant. It was also found that there was no significant difference amongst the different categories of the SMEs in the manufacturing sector across the different variables.

Table 6.28: Summary of ANOVA Results by Number of Full-Time Employees (Manufacturing)

Category	N	Mean	Std. Deviation	Std. Error Mean	F	Df1	Df2	sig
Entrepreneurial Orientation								
Medium	59	4.4271	0.76335	0.09938	2.570	2	95	0.082
Small	34	4.0412	0.92048	0.15792				
Micro	5	4.5600	1.02372	0.45782				
Global Mindset								
Medium	59	4.9605	0.59398	0.07733	1.201	2	95	0.306
Small	34	4.7451	0.71567	0.12274				
Micro	5	4.8000	0.93095	0.41633				
Network Relationships								
Medium	59	4.8102	0.63401	0.08254	2.313	2	95	0.105
Small	34	4.4824	0.80320	0.13775				
Micro	5	4.7200	0.87864	0.39294				
Government Support								
Medium	59	3.4881	0.95287	0.12405	0.651	2	95	0.524
Small	34	3.3412	1.36762	0.23454				
Micro	5	3.9200	0.57619	0.25768				
Internationalization								
Medium	59	3.2394	1.08905	0.14178	2.789	2	95	0.067
Small	34	2.7390	0.92951	0.15941				
Micro	5	2.7750	0.52589	0.23519				
Financial Performance								
Medium	59	3.2825	1.36150	0.17725	0.333	2	95	0.717
Small	34	3.0588	1.12956	0.19372				
Micro	5	3.1333	1.34578	0.60185				
Non-Financial Performance								
Medium	59	4.7337	0.73682	0.09563	2.021	2	95	0.138
Small	34	4.3866	0.93481	0.16032				
Micro	5	4.4000	1.17543	0.52567				

Table 6.29: Summary of ANOVA Results by Number of Full-Time Employees (Services & Agriculture)

Category	N	Mean	Std. Deviation	Std. Error Mean	*F*	Df1	Df2	sig
Entrepreneurial Orientation								
Medium	74	4.4703	0.76673	0.08913	1.973	2	136	0.143
Small	46	4.2870	0.77132	0.11373				
Micro	19	4.1158	0.70021	0.16064				
Global Mindset								
Medium	74	4.7838	0.84658	0.09841	2.580	2	136	0.080
Small	46	4.8043	0.72547	0.10696				
Micro	19	4.3509	0.68018	0.15604				
Network Relationships								
Medium	74	4.6405	0.69989	0.08136	2.052	2	136	0.132
Small	46	4.7000	0.69250	0.10210				
Micro	19	4.3368	0.46692	0.10712				
Government Support								
Medium	74	3.7703	1.13509	0.13195	3.166	2	136	0.045
Small	46	3.2261	1.24694	0.18385				
Micro	19	3.4105	1.16519	0.26731				
Internationalization								
Medium	74	3.1740	1.09322	0.12708	3.249	2	136	0.042
Small	46	2.6902	0.92861	0.13692				
Micro	19	2.8355	1.07856	0.24744				
Financial Performance								
Medium	74	3.5676	1.27823	0.14859	1.620	2	136	0.202
Small	46	3.4130	1.08681	0.16024				
Micro	19	3.0175	1.10260	0.25295				
Non-Financial Performance								
Medium	74	4.6718	0.88845	0.10328	2.329	2	136	0.101
Small	46	4.4255	1.01975	0.15035				
Micro	19	4.2180	0.65356	0.14994				

It can be observed that, on average, medium-sized establishments which were the majority establishments in this study had higher levels of government support as compared to small-sized and micro establishments. Medium-sized SMEs were also highly involved in internationalization that contributed to higher non-financial performance compared to small-sized and micro enterprises. The result suggests that size of the firm plays a major role in influencing the internationalization and

performance of SMEs. Bigger sized firms are normally better in terms of adequate capital investment, high level of technology and superior managerial capabilities that enable them to be more competitive as compared to small and micro enterprises.

6.6.4 Comparison by Location

Further analysis indicated that there was a significant difference in the levels of global mindset according to the different locations of the SMEs, F (2, 234) = 6.889, at $p < 0.05$ level. On average, the levels of global mindset of urban SMEs (M = 4.9301, SE = 0.05) were higher than suburban enterprises (M = 4.6133, SE = 0.08) and rural, SMEs (M = 4.4561, SE = 0.24).

It was also found that there was a significant difference in the levels of network relationships according to the different location of the SMEs F (2, 234) = 3.826, at $p < 0.05$ level. On average, the levels of network relationships in urban SMEs (M = 4.7483, SE = 0.05) were higher than rural enterprises (M = 4.5368, SE = 0.21) and suburban SMEs (M = 4.4880, SE = 0.08).

Lastly, comparison by location showed that there was a significant difference in levels of non-financial performance according to the different locations of SMEs, F (2, 234) = 3.242, at $p < 0.05$ level. On average, the non-financial performance of urban SMEs (M = 4.6713, SE = 0.06) were higher than suburban enterprises (M =

4.4057, SE = 0.11) and rural, SMEs (M = 4.2857, SE = 0.20). With regards to entrepreneurial orientation, government support, internationalization and firm financial performance, the mean differences between groups were not significant.

The findings of a one-way analysis of variance (ANOVA) by location demonstrated that SMEs located in urban areas possessed high levels of global mindset and network relationships and non-financial performance as compared to suburban and rural areas. This is understandable as urban SMEs enjoyed better facilities, infrastructure, and business environments as compared to suburban and rural areas. In addition, the implementation of the Government Transformation Program as well as various programs under it further benefited urban SMEs to grow and expand in domestic and international markets which subsequently contributed to high levels of global mindset, network relationships and firm non-financial performance.

Table 6.30: Summary of ANOVA Results by Location

Location	N	Mean	Std. Deviation	Std. Error Mean	F	Df1	Df2	sig
Entrepreneurial Orientation								
Urban	143	4.3944	0.76396	0.06389	1.087	2	234	0.339
Suburban	75	4.2267	0.82615	0.09540				
Rural	19	4.3263	0.93621	0.21478				
Global Mindset								
Urban	143	4.9301	0.64137	0.05363	6.889	2	234	0.001
Suburban	75	4.6133	0.77893	0.08994				
Rural	19	4.4561	1.05532	0.24211				
Network Relationships								
Urban	143	4.7483	0.60594	0.05067	3.826	2	234	0.023
Suburban	75	4.4880	0.74923	0.08651				
Rural	19	4.5368	0.94763	0.21740				
Government Support								
Urban	143	3.5692	1.10321	0.09226	2.536	2	234	0.081
Suburban	75	3.2933	1.20150	0.13874				
Rural	19	3.8842	1.26019	0.28911				
Internationalization								
Urban	143	2.9703	1.02724	0.08590	0.729	2	234	0.483
Suburban	75	2.9817	1.06418	0.12288				
Rural	19	3.2763	1.13696	0.06798				
Financial Performance								
Urban	143	3.4429	1.25708	0.10512	2.273	2	234	0.105
Suburban	75	3.0933	1.13577	0.13115				
Rural	19	3.5439	1.36631	0.31345				
Non-Financial Performance								
Urban	143	4.6713	0.79142	0.06618	3.242	2	234	0.041
Suburban	75	4.4057	1.02103	0.11790				
Rural	19	4.2857	0.87547	0.20085				

6.6.5 Comparison Ownership Status

The final comparison by ownership status revealed that there was a significant difference in the levels of network relationships according to the ownership status of SMEs $F (2, 234) = 3.663$, at $p < 0.05$ level. On average, the levels of network relationships of private limited companies of these enterprises (M = 4.7149, SE = 0.05) were higher than that of partnerships (M = 4.4815, SE = 0.12) and sole-proprietors of SMEs (M = 4.3931, SE = 0.13).

This may be attributed to the fact that private limited companies had the advantage acquiring funds and also had greater potential of expanding domestically and internationally (Raya et al., 2010). In addition, Senik et al. (2007) suggested that SMEs should give serious attention to network relationships especially at the start-up and growth stages. Thus, with the expansion of firms in domestic and international markets, private limited companies gained high network relationships as compared to sole-proprietorships and partnerships.

Lastly, it was also found that there was a significant difference in the levels of financial performance according to the ownership status of SMEs, $F (2, 234) = 4.527$, at $p < 0.05$ level. On average, the levels of financial performance of partnerships (M = 3.8765, SE = 0.17) were higher than that of sole-proprietors (M = 3.6437, SE = 0.19) and private limited companies (M = 3.2118, SE = 0.09). In terms of entrepreneurial orientation, global mindset, government support,

internationalization and firm non-financial performance, the mean differences between groups were not significant.

The possible explanation is that most of the partnership enterprises were professional entrepreneurs with high levels of entrepreneurial knowledge and experience. Furthermore, McClelland (1987) suggested that the characteristics of entrepreneurs such as self-confidence, persistence, expertise and persuasion skills can be very important in determining business success. Moreover, in Malaysia, Rose et al. (2006) found that personal initiatives facilitated the growth and success of a firm. Thus, professional entrepreneurs with high entrepreneurial skills and knowledge will be more likely to achieve business success and contribute high financial performance for the enterprises.

Table 6.31: Summary of ANOVA Results by Ownership Status

Location	N	Mean	Std. Deviation	Std. Error Mean	*F*	Df1	Df2	sig
Entrepreneurial Orientation								
Sole-proprietor	27	4.3448	0.78175	0.14517	0.021	2	234	0.979
Partnership	27	4.3630	0.72967	0.14043				
Private Limited Co.	181	4.3304	0.81501	0.06058				
Global Mindset								
Sole-proprietor	29	4.6897	0.78645	0.14604	0.856	2	234	0.426
Partnership	27	4.6667	0.90582	0.17433				
Private Limited Co.	181	4.8269	0.71110	0.05286				
Network Relationships								
Sole-proprietor	29	4.3931	0.75116	0.13949	3.663	2	234	0.027
Partnership	27	4.4815	0.65928	0.12688				
Private Limited Co.	181	4.7149	0.67860	0.05044				
Government Support								
Sole-proprietor	29	3.5793	1.35893	0.25235	2.380	2	234	0.095
Partnership	27	3.9407	0.91284	0.17568				
Private Limited Co.	181	3.4309	1.14326	0.08498				
Internationalization								
Sole-proprietor	29	2.8405	0.94662	0.17578	0.573	2	234	0.565
Partnership	27	3.1389	1.15730	0.22272				
Private Limited Co.	181	3.0028	1.04707	0.07783				
Financial Performance								
Sole-proprietor	29	3.6437	1.07619	0.19984	4.527	2	234	0.012
Partnership	27	3.8765	0.93438	0.17982				
Private Limited Co.	181	3.2118	1.27316	0.09463				
Non-Financial Performance								
Sole-proprietor	29	4.6601	0.88263	0.16390	0.274	2	234	0.760
Partnership	27	4.4921	0.91759	0.17659				
Private Limited Co.	181	4.5493	0.88421	0.06572				