HOFSTEDE'S MASCULINITY: CAN IT EXPLAIN WOMEN'S ENTREPRENEURIAL INNOVATIVENESS?

Aida Idris[1]

Abstract

Feminists have argued that analysis of women entrepreneurs should view women as a distinct social entity which may require separate theoretical and methodological treatments than men. Since some cultural stimuli induce gender-differentiated responses, cultural constructs, in particular, deserve a closer inspection. Hence, the objective of the current study is to examine whether or not existing constructs of culture may sufficiently explain the behaviour of women entrepreneurs. Hofstede's masculinity is used as the independent variable and innovativeness as the dependent variable, and correlation analysis is performed on the relationship between the two. Additionally, factor analysis is conducted to examine discriminant and convergent validity of the relevant scales. The study is carried out in the form of a mail survey which yields a total of 87 usable responses. Results indicate that for a female sample, the masculinity dimension may very well require a thorough reconsideration.

1. Introduction

Studies on women entrepreneurs have gained increasing popularity since the early 1990s, when it became clear that they were making important contributions to economic development. Some of these studies are concerned with male-female differences in personal and business profiles (Brush, 1992; Carter et al, 1997; Fischer et al, 1993). Others facilitate comparison of women entrepreneurs across cultures (Ben-Yoseph and Gundry, 1998; Hisrich and Ozturk, 1999; McElwee and Al-Riyami, 2003).

While many researchers use established constructs - such as Hofstede's five cultural dimensions and McClelland's three needs – as the basis for comparing entrepreneurial behaviours (Baum et al, 1993; Lee, 1996; McGrath et al, 1992; Shane, 1993; Thomas and Mueller, 2000), there is a growing voice urging for alternative viewpoints in gender-related entrepreneurship studies. In particular feminists argue that instead of applying current management theories lock, stock and barrel, analysis of women entrepreneurs should view women as a distinct social entity which may require separate theoretical and methodological treatments than men (Bruni et al, 2004; Calas and Smircich, 1992; Cunha and Cunha, 2002; Marlow, 2002).

Since masculinity, as a cultural value, induces gender-differentiated responses (Segall et al, 1999; Thompson, 1975), it deserves a closer inspection as a predictor of women's entrepreneurial behaviour. In other words, there is a need to ascertain whether the

---

[1] Aida Idris is a Lecturer in the Department Of Business Strategy And Policy, Faculty of Business and Accountancy, University of Malaya, Kuala Lumpur.

existing concept of masculinity explains the behaviour of women entrepreneurs in the same way it does men. In the following section, a review of masculinity is conducted. A special emphasis is given on Hofstede's work (1980, 1998) due to its widespread adoption in entrepreneurship studies.

2. Masculinity as a Cultural Dimension

Best and Williams (1997) suggest that a person may be masculine or feminine in many different ways including dress, mannerisms, and tone and voice. However, they restrict their definition to the self-concepts and the degree to which these concepts incorporate traits which are differentially associated with men and women. In other words, a person is masculine if he or she emulates certain characteristics normally associated with men such as aggression, dominance, autonomy and achievement. In contrast a person is feminine if he or she displays characteristics normally associated with women such as nurturance, gentleness, deference and abasement.

Studies on masculinity have linked it with various aspects of modern civilisation including consumer behaviour, gender stereotypes, sexuality and religiosity. The dimension has been used to explain differences in the need for success as a component of status, resulting in varying buying behaviour of status products such as jewellery (De Mooij, 1998). It has helped researchers understand why children as young as two perceive weapons to be boys' toys and dolls to be girls' (Thompson, 1975). It has been argued to be the factor which has led many men and women to question their own sexual orientation, thus giving impetus to the gay movement (Messner, 1997). And it has provided explanation for cross-national differences in secularisation (Verweij et al, 1997).

Hofstede (1980) perceives masculinity as a collective social value. According to him:

> The fact that the social-ego difference appears on a worldwide ecological level means that it must be associated with a fundamental dilemma of mankind. This dilemma is the relative strength of nurturance interests (relation with manager, cooperation, atmosphere) versus assertiveness interests (earnings, advancement): of interests in which nearly all traditional and modern societies are traditionally more feminine versus that are traditionally more masculine. (Hofstede, 1980, p.190).

In Hofstede's work (1980), masculinity is a single-factor construct which refers to the extent to which a society is concerned with self-accomplishment as opposed to social development. Although he acknowledges that masculinity also indicates the extent of gender role differentiation, he makes no specific attempt to measure this particular aspect of it. Nevertheless through correlation analysis with data from other studies, Hofstede (1998) draws the following conclusions on gender role differentiation. He suggests that in more masculine cultures:

- There are fewer women in management and leadership positions.
- Job opportunities for men and women are less equal.

- Women have less say in matters which concern them, such as family size and career choice.
- Entrepreneurial traits such as decisiveness and commitment to career are associated primarily with men.

Thus masculinity may in fact be proposed as a two-factor concept which measures: One, the extent to which a society emphasizes the importance of competitiveness, success and self-accomplishment, and two, the extent to which it differentiates between male and female social roles and status. For the sake of simplicity, the former shall be denoted by the term ego orientation and the latter, gender differentiation. According to Hofstede's findings (1998), high masculinity is signified by high ego orientation and high gender differentiation.

Having said that, the norm among researchers is to equate masculinity with ego orientation and to keep silent on gender differentiation. In the area of entrepreneurship, masculinity has often been proposed as a predictor of entrepreneurial tendencies (McGrath et al, 1992; Thomas and Mueller, 2000), and innovativeness (Shane, 1993; Thomas and Mueller, 2000; Yeniyurt and Townsend, 2003). In these studies, the measure of masculinity reflects only the ego orientation content and one can merely assume the positive correlation between ego orientation and gender differentiation.

It is the contention of the current study that this practice is flawed, especially when applied to women entrepreneurs. For a female sample splitting the two "sub-constructs" and measuring each separately is necessary because ego orientation is not necessarily positively correlated with gender differentiation. To illustrate better this argument, a suitable dependent variable is needed which can highlight clearly the different effects of ego orientation and gender differentiation for women entrepreneurs. One such variable is innovativeness.

2.1 Masculinity and Entrepreneurial Innovativeness

Masculinity has previously been linked with innovativeness. Yeniyurt and Townsend (2003) posit that as masculinity indicates the degree to which a society values material success, having the latest and most novel possessions is likely to be important because they symbolize wealth. Thus masculine societies are believed to be more innovative than feminine ones. Shane (1993), and Thomas and Mueller (2000) argue that since masculine traits such as competitiveness and career-orientation are also essential ingredients in the innovative process, individuals or societies with a high masculinity index will tend to be more innovative. According to Hofstede (1998), this high inclination towards material success is also positively related with gender role differentiation. In other words, a highly masculine society will score high on both ego orientation and gender differentiation. Therefore, a highly innovative society is also expected to score high on both factors.

In the case of entrepreneurs, for men, this proposition is of course quite acceptable. It makes sense that if a male entrepreneur is masculine – by virtue of a high score in ego orientation as well as gender differentiation – he will tend to be innovative. However, when applied to females it appears to be self-contradictory. For a woman, having a high masculinity index means that, although she may be ambitious and competitive (high ego

orientation), she will not have a high inclination towards career in the first place (high gender differentiation). Consider the following observation by Hofstede (1998):

> In masculine countries, both boys and girls learn to be ambitious and competitive, although the ambition of the girls may be directed toward the achievements of their brothers and later of their husbands and sons. They become cheerleaders ... (Hofstede, 1998, p.84)

Could it be possible then that for women entrepreneurs, innovativeness is positively related with ego orientation but negatively with gender differentiation? If that were the case, then one cannot use only ego orientation as the measure of masculinity and merely assume its positive correlation with gender differentiation. Neither can one combine the two constructs in a single masculinity dimension as adding the scores for the two constructs may result in their canceling each other out. Hofstede (1998, p.20) observes a similar problem encountered in another research which used a non-IBM population. For that population, scores for two masculinity factors - "advancement" and "earnings" - were negatively correlated and thus adding them up to produce a single index would have been meaningless. To solve the problem, the researcher had to use an alternative measure of the construct.

Hence it seems that for the female population, the theoretical link between masculinity and entrepreneurial innovativeness needs a thorough reconsideration. This line of thinking may also find support in some feminist literature. Calas and Smircich (1992), and Cunha and Cunha (2002) are among those who opine that studies on women need to consider the aptness of applying existing theories without accounting for the unique characteristics of the population. According to Cunha and Cunha (2002),

> As far as research is concerned, this article's major contribution is to go beyond the acknowledgement that management theory in general is gendered and that this gendering leads to a sustained "masculine" bias in its findings and applications... This serves as a warning to academics and practitioners alike. To academics, we would like to restate the need to recognize the male-biased nature of the overwhelming majority of management texts... Feminine management will only come through the rethinking of the deepest assumptions, beliefs and values that shape contemporary organizations. (Cunha and Cunha, 2002, p.11).

3. Rationale and Objective of Study

Based on the above discussion, there is an apparent need to examine whether the existing concept of masculinity may sufficiently explain the behaviour of women entrepreneurs. Therefore, the primary objective of the study is to determine whether masculinity should be reconstructed into two factors, i.e. ego orientation and gender differentiation. In addition, the study also aims to examine the respective effects of ego orientation, gender differentiation and masculinity on women's innovativeness. The study is expected to shed some light on how women entrepreneurs are affected by gender and cultural issues. In particular it will serve as a guide to policy-makers and managers towards cultivating values which are conducive for women's development.

4. Study Method

A self-administered questionnaire was sent to 913 women entrepreneurs registered with the Malaysian Small and Medium Industries Development Corporation (SMIDEC). The questionnaire consisted of three parts. Part One was designed to produce a profile of the respondents and included items on:

- age
- marital status
- educational achievement
- form of business ownership
- duration of business
- annual income
- type of industry
- number of employees
- location of business

Part Two measured gender differentiation, ego orientation and masculinity while Part Three was a measure of entrepreneurial innovativeness. 5-point Likert scales (Tables 1, 2 and 3) were used in the second and third parts to produce continuous data. The items for Part Two were adopted from Hofstede's work (1998), where masculinity was taken as the combined scores for ego orientation and gender differentiation. Part Three was self-developed - based on an earlier series of personal interviews (Idris, 2008) - to represent the most common types of innovation among Malaysian women entrepreneurs. In general, the fifteen items in Part Three were in line with the definitions of innovation offered by Drucker (1985), Johannessen et al (2001), Rogers and Shoemaker (1971), and Zaltman et al (1973) which may be summarised as:

> The level of novelty implemented by an entrepreneur with regards to the products, services, processes, technologies, ideas or strategies in various functions of the business which may facilitate the realization of its objectives. The degree of novelty or newness is as perceived by the individual entrepreneur.

In view of the objectives set out in Section 3.0, correlation and factor analysis are considered appropriate. In correlation analysis, the intention is to determine the strength and direction of the following associations: Ego orientation and innovativeness, gender differentiation and innovativeness, and masculinity and innovativeness.

Factor analysis is intended primarily to assess support for the earlier contention that in studies involving women entrepreneurs, gender differentiation and ego orientation should be measured separately and explicitly, instead of using a single masculinity construct. Thus factor analysis is conducted on the 14 items of gender differentiation (6 items) and ego orientation (8 items) collectively. If these 14 items load onto one factor, then separating the two "sub-constructs" of masculinity may be considered futile because they are in fact dealing with exactly the same concept. However, if the items load onto two factors it may be taken that they are looking at two different concepts – an indication that using a single masculinity construct in the study would have been inappropriate.

4.1 Hypotheses

Based on the arguments in Section 2.1, the following relationships and hypotheses are forwarded.

Ego Orientation and Innovativeness
Ego orientation is defined as an internal drive for material achievements, which in turn is a stimulant for business growth and innovation. Within the same society, ego orientation is expected to affect women the same way it does men. Thus, the higher their ego orientation, the higher the level of innovation among women entrepreneurs.

H1: There is a significant positive relationship between ego orientation and entrepreneurial innovativeness.

Gender Differentiation and Innovativeness
Gender differentiation refers to the extent male and female roles are differentiated within the society. A high gender differentiation society conditions women to focus on their traditional roles such as wives and mothers, and impedes their career growth. Therefore it is postulated that gender differentiation has an adverse effect on the innovativeness of women entrepreneurs.

H2: There is a significant negative relationship between gender differentiation and entrepreneurial innovativeness.

Masculinity and Innovativeness
Hofstede's (1980, 1998) concept of masculinity suggests that it is the collective score of ego orientation and gender differentiation. For women entrepreneurs, it is believed that the two scores will probably cancel each other out. It is therefore expected that masculinity will have no significant effect on the innovativeness of women entrepreneurs.

H3: There is no significant relationship between masculinity and entrepreneurial innovativeness.

5. Results and Discussion

A total of 96 completed questionnaires were returned, which yielded a response rate of 10.5%. Although the response rate was low, it was not unexpected due to the busy schedule of the entrepreneurs and their reluctance to divulge some information perceived as trade secrets. After screening for gross incompleteness and physical defects, in the end 87 usable responses were used in the data analysis. Results of the data analysis are discussed as follows.

5.1 Profile of Respondents

The majority of the respondents are in their 30s, are married and have children, and hold either SPM or STPM. Most are sole proprietors, operating in the consumer services sector, and located in the city. They have been in business for 1 to 5 years, earn less than RM200,000 per annum, and have between 1 to 4 employees. Table 4 presents a more detailed breakdown of the profile.

The above characteristics appear to be quite representative of the general population of Malaysian women entrepreneurs. According to the Malaysian Labour Force Report (Department of Statistics, 2004), out of the total number of women employers, a clear majority are located in urban areas and aged between 30 and 49 years. Furthermore, Ariffin (1994) and Ong and Sieh (2003) have noted similar observations regarding the small size of business, high participation in service industries, and sole proprietorship as the form of ownership. More recently, Ndubisi and Kahraman (2005) find that only a fraction have explored traditionally male-dominated sectors such as transportation and engineering.

On a more positive note, some development in educational attainment may be deduced. In the study by Sieh et al (1991), approximately 13% of the corresponding sample had received only primary school education. Here those who fall into the same category make up just 8% of the total sample. The difference of 5% seems to be due to a rise - by roughly the same amount - in the secondary school category. The study by Ndubisi and Kahraman (2005) also observes an upward trend in educational attainment, where more than 60% of their respondents have actually received tertiary education.

5.2 Scale Reliability

Before proceeding with further analysis, preliminary checks on scale reliability are required. The Cronbach's alpha statistics are used to determine the internal consistency of the measurements involved in the study. The alpha for the three continuous scales (gender differentiation=0.801, ego orientation=0.881 and entrepreneurial innovativeness=0.877) fall within the acceptable range (Pallant, 2005), thus assuring the reliability of the scales.

5.3 Discriminant and Convergent Validity

Factor analysis on the combined scale results in the extraction of two factors (Table 5). Each of the 14 items has a loading of at least 0.5 in either one of the components and none of them cross-loads onto the other factor, indicating a clear-cut separation of constructs. Furthermore, all 6 items for gender differentiation load onto Component 1 and all 8 items for ego orientation load onto Component 2. Next factor analysis is performed on the two scales separately, the results of which confirm convergent validity for gender differentiation and ego orientation.

The above findings confirm the discriminant validity of the combined masculinity scale as well as the convergent validity of each individual scale (gender differentiation and ego orientation separately). These results provide the first indication that, for the current sample, the proposition to measure gender differentiation and ego orientation separately does appear to be apt.

5.4 Correlation Analysis

Correlation analysis is conducted to facilitate hypotheses testing. The results are discussed below in accordance with the three hypotheses postulated earlier.

5.4.1 Ego Orientation and Innovativeness

Surprisingly, the results indicate that ego orientation does not have a significant relationship with entrepreneurial innovativeness. The strength of association between the two variables is extremely weak (R=-0.056, p=0.607) and the direction is also contrary to expectation. H1 is therefore not supported.

Although the results are unexpected, they are nevertheless consistent with those by Shane (1993), Thatcher et al (2003), and Yeniyurt and Townsend (2003). Thus, the current results reinforce some earlier findings on the non-significant relationship between ego orientation and innovativeness. The negative direction also highlights another interesting discrepancy between theory and reality. Ego orientation is usually expected to have a positive effect on innovativeness. However, empirical data indicate that in reality that is not always the case. In this study and that by Shane (1993), ego orientation has been shown empirically to have a negative effect on innovativeness. As the study by Shane (1993) involves a mixed sample (majority-male), the negative association between the two variables may not be attributed to gender differences. Instead it points to a possible misconception of ego orientation and how it potentially affects innovativeness.

It is quite likely that the relationship between ego orientation and innovativeness may not be as simple and clear-cut as expected. Rather it appears to be dependent on the presence of certain moderating variables. In fact such notion has received support in the study by Yeniyurt and Townsend (2003) where the direction of the association between ego orientation and innovativeness is found to be moderated by Gross Domestic Product (GDP). To be specific, in countries where the GDP is high, the sign is negative; where the GDP is low, it is positive. Although moderating factors are beyond the scope of this study, the issue certainly deserves due attention in future research.

5.4.2 Gender Differentiation and Innovativeness

There is a significant relationship between gender differentiation and innovativeness at the 0.01-level. The strength of association is moderate (R= -0.412, p=0.000), and the direction is as expected. Thus H2 is supported.

The above shows that a society's perception of a woman as well as her social role and status very much affects her innovative capacity. Women entrepreneurs in a high gender differentiation society are expected to give very little priority to their business development compared to their primary role as daughters, wives and mothers. Thus gender differentiation is hypothesized to have a negative effect on their innovativeness. The results show that gender differentiation does indeed have a direct and significant relationship with the women's innovativeness and that its direction is negative.

In the study, gender differentiation is measured using six items representing the women's views on male-female differences in school, at work, at home and in general. When correlation analysis is performed between each item and entrepreneurial innovativeness, the results show that all but Item 3 are significantly (and negatively) correlated with the dependent variable at the 0.01 level. The largest effect, however, is produced by Item 5: Boys and girls should attend the same subjects at school, followed by Item 4: Certain professions are suitable only for men while some only for women.

The above outcome suggests that, as far as gender differentiation is concerned, the innovativeness of women entrepreneurs is mostly determined by values on educational and employment rights. The reason may be that a society which believes in equal opportunities both at school and work tend to produce capable and independent women. In such cultures, it is very likely that women choose to go into business mainly out of interest and of their own free will. As a result, they have the commitment as well as autonomy to experiment and experience. It is important to note that in this scenario, the said commitment is expected to be a result of interest and autonomy, not a higher drive for wealth accumulation (ego orientation).

5.4.3 Masculinity and Innovativeness

Finally, the results show that the association between masculinity and entrepreneurial innovativeness is marginally significant at the 0.01-level (p=0.015). Therefore, there is only a weak support for H3. However, it must be noted that the effect of masculinity on innovativeness is very much lower than that of gender differentiation (R=-0.261).

The result indicates that using a single masculinity construct for a female sample may lead to erroneous conclusions. In other words, researchers might conclude that both ego orientation and gender differentiation are equally significant to women. As seen in this study, the existing concept of masculinity clouds the importance of gender differentiation to women, while overestimating ego orientation.

6. Conclusion

The main significance of the study lies in the re-conceptualization of masculinity. While Hofstede's work (1998) hints that gender role differentiation is an implicit construct of the said value, this author argues earlier on that for a female sample, the two sub-constructs i.e. ego orientation and gender differentiation need to be measured explicitly and separately. Indeed results of the study indicate that when the two scales are combined and subjected to factor analysis, two dimensions emerge. Furthermore, only gender differentiation is a significant predictor of entrepreneurial innovativeness while ego orientation is not. These observations attest that the decision to split the masculinity dimension into the two constructs is appropriate.

The emergence of gender differentiation as a construct separate from ego orientation has several implications to both cross-cultural and gender-related studies. In general, the study has provided some empirical support for researchers who have argued for further discourse in women-related studies. When discussing women entrepreneurs, scholars have criticised the normal practice of comparing women and men on male terms, and then offering "solutions" to perceived "problems" (Bruni et al, 2004; Marlow, 2002). Thus, this study will hopefully give the impetus for greater debate and reforms in entrepreneurship research.

The findings also highlight the importance of values to the development of entrepreneurs. Female entrepreneurs, in particular, are significantly affected by the level of gender differentiation within the society as it determines educational and employment opportunities. Thus fostering values which are "women-friendly" seems paramount and

should ideally be a process which begins early in a child's life. For instance, both boys and girls should be encouraged to help out at home and choose the same subjects in school.

However, the study is very much limited by the small sample size. With a larger sample, more detailed tests may be conducted to determine differences among sub-group - in other words, whether there are innovative differentials among women from different age groups, educational attainment, types of industry, size of business, et cetera. Future studies may also want to investigate the mediating effect of culture on the relationship between the above factors and innovativeness.

Comparative analysis of the current findings with a male sample is also recommended. Some of the more pertinent research objectives include evaluating male-female differences regarding the effect of gender differentiation and ego orientation on entrepreneurial innovativeness. In particular, while ego orientation does not seem to be very important to women, it is expected to have a significant effect on men. Researchers should also be interested in the validity of the ego orientation-gender differentiation scale: Do the items converge or load on two components? Findings in the above areas will help conclude whether using a single masculinity scale – or maintaining the two "sub-constructs" – is more appropriate for male entrepreneurs.

Research interest also lies in the validation of the instrument as an appropriate measure of gender differentiation. Recall that the variable is not measured explicitly in Hofstede's (1980, 1998) studies. Hence, for current purposes, the scale for gender differentiation is constructed by the author herself, based on a personal interpretation of Hofstede's deductions. Validating it is thus a critical requirement in the research process. Through the Cronbach's alpha and factor analysis, the reliability and convergent validity of the scale are assessed and found to be tenable. However, according to Pallant (2005), it is possible to improve further the reliability by developing a longer scale (more than 10 items). Certainly more replication studies are called for to verify the strength of the scale.

Table 1 Items Measuring Gender Differentiation

Item	Scale
1. The main provider for a family should be the husband, not the wife. 2. Both sons and daughters should help out with household chores (negatively-worded). 3. It is okay for a man to make sexual advances towards a woman, but not vice versa. 4. Certain professions are suitable only for men while some only for women. 5. Boys and girls should attend the same subjects at school (negatively-worded). 6. Men should be aggressive; women submissive.	1=Disagree; 2=Somewhat disagree; 3=Not sure; 4=Somewhat agree; 5=Agree.

Table 2 Items Measuring Ego Orientation

Item	Scale
1. Developing the economy is more important than protecting nature. 2. A large organization is better than a small one. 3. Work to live, not live to work (negatively-worded). 4. The primary objective of a business entity should be profit-maximisation. 5. Organisational conflicts should be resolved through negotiation instead of force (negatively-worded). 6. For the sake of the business, it is okay to uproot the family. 7. Crimes may be reduced more through educational programmes than stricter laws (negatively-worded). 8. Violence on TV is acceptable.	1=Disagree; 2=Somewhat disagree; 3=Not sure; 4=Somewhat agree; 5=Agree.

Table 3 Items Measuring Entrepreneurial Innovativeness

Item	Scale
1. Introduce new products or services within the same industry. 2. Engage new suppliers. 3. Promote existing products or services to new target markets. 4. Develop new uses for existing products or services. 5. Move to a new location. 6. Improve the quality of existing products or services. 7. Use new technology or machinery. 8. Open new branches. 9. Use new raw materials or types of supply. 10. Change leadership or communication style. 11. Change the appearance or packaging of existing products or services. 12. Change business operating hours. 13. Restructure departments or functions in organization. 14. Change the price of existing products or services. 15. Develop new promotional techniques.	1=Never implemented; 2=Slightly implemented; 3=Not sure; 4=Often implemeted; 5=Continuously implemented.

Table 4 Results of the Frequency Analysis

Variable	%	Cumulative %
Age		
- 20 to 29 yrs	16.7	16.7
- 30 to 39 yrs	35.5	52.2
- 40 to 49 yrs	29.7	81.9
- 50 and above	18.1	100.0
Marital status		
- Single	19.6	19.6
- Married and w/out children	5.8	25.4
- Married and with children	69.6	94.9
- Divorced/widowed	5.1	100.0
Educational attainment		
- Degree/diploma	29.0	29.0
- STPM/SPM	43.5	72.5
- SRP	15.2	87.7
- Primary school	8.0	95.7
- Others	4.3	100.0
Form of ownership		
- Sole proprietorship	83.3	83.3
- Partnership	9.4	92.8
- Company	7.2	100.0
Type of business		
- Manufacturing	8.7	8.7
- Business services	18.8	27.5
- Consumer services	41.3	68.8
- Distribution	29.0	97.8
- Others	2.2	100.0
Duration of business		
- Less than 1 yr	8.7	8.7
- 1 to 5 yrs	40.6	49.3
- More than 5 to 10 yrs	23.2	72.5
- More than 10 yrs	27.5	100.0
Location of business		
- City	39.9	39.9
- Large town	13.8	53.6
- Small town	31.9	85.5
- Village	10.9	96.4
- Others	3.6	100.0
Annual income		
- Less than RM200,000	64.5	64.5
- RM200,000 – 500,000	20.3	84.8
- RM501,000 – 1,000,000	5.1	89.9
- RM1,000,001 – 5,000,000	5.8	95.7
- More than RM5,000,000	4.3	100.0
Number of employees		
- None	25.4	25.4
- 1-4	55.1	80.4
- 5-19	15.9	96.4
- 20-50	3.6	100.0

Table 5 Rotated Component Matrix for the GD-EO Scale

	Component	
	1	2
GD1	0.147	**0.728**
GD2	0.098	**0.680**
GD3	0.072	**0.645**
GD4	-0.097	**0.741**
GD5	0.130	**0.734**
GD6	0.169	**0.679**
EO1	**0.793**	0.175
EO2	**0.589**	0.110
EO3	**0.763**	0.109
EO4	**0.821**	0.147
EO5	**0.742**	-0.064
EO6	**0.665**	0.258
EO7	**0.877**	0.037
EO8	**0.598**	0.018

References

Ariffin, J 1994, *Readings on women and development in Malaysia* Kuala Lumpur, University of Malaya.

Baum, JR, Olian, JD, Erez, M, Schnell, ER, Smith, KG, Sims, HP, Scully, JS, and Smith, KA, 1993, 'Nationality and work role interactions: A cultural contrast of Israeli and U.S. entrepreneurs' versus managers' needs' *Journal of Business Venturing*, vol.8, pp. 449-512.

Ben-Yoseph, M, and Gundry, LK 1998, 'Women Entrepreneurs in Romania, Poland, and the U.S.: Cultural and Family Influences on Strategy and Growth', *Family Business Review*, vol.9, no.1, pp. 61-73.

Best, DL and Williams, JE 1997, 'Sex, gender and culture' in Berry, JW, Segall, MH and Kagitcibasi, C (eds.), *Handbook of Cross-cultural Psychology Volume 3 Social Behavior and Applications*, Needham Heights, MA: Allyn and Bacon.

Bruni, A, Gherardi, S and Poggio, B 2004, 'Entrepreneur-mentality, gender and the study of women entrepreneurs' *Journal of Organizational Change Management*, vol.17, no.3, pp. 256-268.

Brush, CG 1992, 'Research on women business owners: past trends, a new perspective, and future directions', *Entrepreneurship Theory and Practice*, vol.16, no.4, pp.5-30.

Calas, M and Smircich, L 1996, 'From the woman's point of view: Feminist approaches to organisation studies', In Clegg, S, Hardy, C and Nord, W, *Handbook of Organisation Studies*, Sage, Newbury Park, California.

Carter, NM, Williams, M and Reynolds, PD 1997, 'Discontinuance among new firms in retail: the influence of initial resources, strategy and gender', *Journal of Business Venturing*, vol.12, pp.125-145.

Cunha, JV and Cunha, MP 2002, 'Reading between the lines: Unveiling masculinity in feminine management practices', *Women in Management Review*, vol.17, no.1, pp. 5-11.

De Mooij, M 1998, *Global Marketing and Advertising, Understanding Cultural Paradoxes*, Sage, Thousand Oaks, California.

Department of Statistics 2004, *Labour Force Survey Report, Malaysia, 2003*, Putrajaya.

Drucker, PF 1985, *Innovation and Entrepreneurship*, HarperCollins, New York.

Fischer, EM Reuber, AR and Dyke, LS 1993. 'A theoretical overview and extension of research on sex, gender and entrepreneurship', *Journal of Business Venturing*, vol.8, pp.151-168.

Hisrich, RD and Ozturk, SA 1999, 'Women entrepreneurs in a developing economy', *Journal of Management Development*, vol.18, no.2, pp.114-125.

Hofstede, G 1980, *Culture's consequences: International differences in work-related values*, Sage, London.

Hofstede, G (ed.) 1998, *Masculinity and Femininity: The Taboo Dimension of National Cultures*, Sage, Thousand Oaks.

Idris, A. 2008, 'Cultivating innovation through female leadership: The Malaysian perspective', *E-Leader Conference*, Bangkok, 2-5 January.

Lee, J 1996, 'The motivation of women entrepreneurs in Singapore', *Women in Management Review*, vol.11, no.2, pp. 18-29.

Marlow, S 2002, 'Women and self-employment: A part of apart from theoretical construct?' *International Journal of Entrepreneurship and Innovation*, vol.3, no.2, pp. 83-91.

McClelland, DC 1961, *The Achieving Society*, Van Nostrand, Princeton.

McElwee, G and Al-Riyami, R 2003, ' Women entrepreneurs in Oman: some barriers to success. *Career Development International*,' vol.8, no.7, pp.339-346.

McGrath, R, MacMillan, IC. And Scheinberg, S 1992, 'Elitists, risk-takers, and rugged individualists? An exploratory analysis of cultural differences between entrepreneurs and non-entrepreneurs', *Journal of Business Venturing*, vol.7, no.2, pp.115-135.

Messner, MA 1997, *Politics of masculinities: Men in movements*, Sage, Thousand Oaks, California.

Ndubisi, NO and Kahraman, C 2005, 'Malaysian women entrepreneurs: Understanding the ICT usage behaviours and drivers', Journal of Enterprise Information Management, vol.18, no.6, pp.721-739.

Ong, FS and Sieh, LML.2003, 'Women managers in the new millennium: Growth strategies', in Roziah Omar and Azizah Hamzah (eds.), *Women in Malaysia,* Utusan, Kuala Lumpur.

Pallant, J2005, *SPSS Survival Manual, 2nd. Edition,* Chicago.

Rogers, EM and Shoemaker, FF 1971, *Communications of Innovations: A Cross-Cultural Approach,* Free Press, New York.

Segall, MH, Dasen, PR, Berry, JW and Poortinga, YH 1999, *Human Behaviour in Global Perspective,* Allyn and Bacon, Needham Heights, Massachusetts.

Shane, S1993, 'Cultural Influences on National Rates of Innovation', *Journal of Business Venturing,* vol.8, pp. 59-73.

Sieh, LML, Lang, CY, Phang, SN and Norma Mansor, 1991, *Women Managers of Malaysia,* Faculty of Economics and Administration, University of Malaya, Kuala Lumpur.

Thatcher, JB, Srite, M, Stepina, LP and Liu, Y 2003, 'Culture, Overload and Personal Innovativeness with Information Technology: Extending the Nomological Net', *Journal of Computer Information Systems,* Fall, pp.74-81.

Thomas, AS and Mueller, SL 2000, 'A case for comparative entrepreneurship: Assessing the relevance of culture', *Journal of International Business Studies,* vol.31, pp. 287-301.

Thompson, SK 1975, 'Gender labels and early sex role development', *Child Development,* vol. 46, pp.339-347.

Verweij, J, Ester, P and Nauta, R 1997, ' Secularisation as an economic and cultural phenomenon: A cross-national analysis', *Journal for the Scientific Study of Religion,* vol.36, no.2, pp.309-324.

Yeniyurt, S and Townsend, JD 2003, 'Does Culture Explain Acceptance of New Products in A Country? An Empirical Investigation', *International Marketing Review,* vol.20, no.4, pp. 377-396.

Zaltman, G, Duncan, R and Holbeck, J 1973, *Innovations and Organisations,* Wiley, New York.