

## EXTENDED ABSTRACT

# THE MODERATING EFFECT OF DEMOGRAPHIC FACTOR ON THE DETERMINANTS OF BUSINESS PERFORMANCE: EVIDENCE FROM MUSLIM WOMEN ENTREPRENEURS

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### Abstract

This study aims to examine the moderating effect of demographic factor on the relationship between the factors of business performance of Muslim women entrepreneurs (MWEs) in Sri Lanka. Demographic factor was measured with the dimensions of age in this study. Structured questionnaire was used as the data collection technique with the sampling frame of 296 respondents using simple random sampling technique. Structural Equation Modeling (SEM) with AMOS as the data analysis technique while employing SPSS 23.0. The systematic investigation of factors influencing business performance of Muslim women entrepreneurs in Sri Lanka examined the applicability of five empirical perspectives such as psychological characteristics, human capital, social Capital, industrial factor and cultural factor with the moderating effect of demographic factor-age. Based on the results reported, there is a substantial moderation of age in the relationship between the factors of business performance, Women entrepreneurs, Muslim societies, trade chambers and policymaking authorities may use this finding of the study as a template to gain insight in to the demographic factors influencing on business performance of Sri Lankan Muslim women entrepreneurs.

**Keywords:** Demographic factors, business performance, Muslim women entrepreneurs

## 1. Introduction

Women entrepreneurship is the talk of the town now a days since researchers and academicians focus women entrepreneurship. Islamic perspective, the Quran- the Holy Book has provided certain guidelines for Muslim women doing business, first and foremost giving priority to their families as the breadwinners are men, while the women are caretakers (Alina, 2013; Ullah et al., 2013). Therefore, individual background/demographic factors had an impact on entrepreneurial development such as age (Reynold, Hay, Bygrave, Camp, and Autio, 2000; Sarker Palit, 2014). Baum et al. (2001) pointed out that researchers should also look at moderation models that measure more complex and causal effects. This study incorporated new knowledge into the multidimensional factors of business performance by assessing the moderating effects of demographic factor on the factors affecting the business performance of Muslim women entrepreneurs in SMEs in Sri Lanka, Hence, the objective

was to investigate how demographic- moderate the relationships between the factors of business performance of Muslim women entrepreneurs in SMEs in Sri Lanka.

Previous studies have shown that age has an impact with with business performance (Ibudunni et al., 2018; Kristiansen et al., 2003; Sinha, 1996). However, Saker and Palit (2014) found that there is no significant relationship amongst age differential of women entrepreneurs and success factors in Bangladesh. However, the moderating effect of age on the relationship between the determinants of business performance has not been established, particularly in developing countries like Sri Lanka especially amongst Muslim women entrepreneurs. In order to bridge this study, age was considered as a moderating factor on the determinants of business performance.

Contemporary social studies commonly use age as the main variable in categorizing people and explaining their differences (Aapola, 2002). Skills and experience might improve with age. This may be the reason that people might learn to manage things better, including business, when they grow and become more matured. Age is primarily measured in numerical terms (Aapola, 2002). According to Reynold et al. (2000), individuals between the ages of 25 and 44 are the most entrepreneurially active and are expected to be successful. Further, Sinha (1996) correlated successful entrepreneurs with younger age. However, Krisansen et al. (2003) discovered that older entrepreneurs are more successful than their younger counterparts. Rashid et al. (2015) found that those who are 56 years or older are more successful, followed by the age group of 46 to 55. However, some studies (Islam et al., 2011; Saker and Palit (2014) found that age has no significant impact on business performance, implying an inconclusive finding between age and business performance.

It is therefore expected that demographic factor-age of the female Muslim entrepreneurs engaged in SMEs in Sri Lanka will moderate the factors influencing business performance.

## 2. Research Methodology

Structured questionnaire was used as the data collection technique with the sampling frame of 296 respondents who were registered with District Chambers from Ampara, Batticaloa, and Tricomalee Districts using stratified random sampling technique. Sample selection criteria over the business run more than 3 years and should be registered with their District Chamber. Data analysis technique was Structural Equation Modeling (SEM) with AMOS while employing SPSS 23.0 to confirm the measurement model used in this study. Multi group analysis was used to test the moderation effect of demographic factors on the determinants of business performance. Business performance was operationalized with the sub variables such as psychological characteristics, human capital, social capital, industrial factor and cultural factor according to Salfiya Ummah, Choy and Sulaiha Beevi (2021). The moderation effect of demographic variable was operationalize with age.

## 3. Results and Discussion

The research objective was to determine the moderation effects of demographic factor- age on the relationship between the factors of business performance such as psychological characteristics, human capital, social capital, industrial factor, cultural factor.to test the sub-hypothesis age was categorised into four levels namely, below 30 years, 30-40 years, 40-50 years and above 50 years. To test for the presence of moderation effect on the overall model, the variant model (unconstrained) was compared with the invariant model (measurement residuals) in the multi-group analysis to determine the moderation effect of age on the determinant factors of business performance. As a rule of thumb, if the unconstrained model was found to be better than the measurement residuals model, then there is an existence of moderation on the overall model (Hair et al., 2010). Figure 1 illustrates the fit indices of the structural model for testing the moderation effect of age on the relationship between the determinant variables and business performance of the age group below 30 years, 30 to 40 years, 40 to 50 years and above 50 years, respectively.

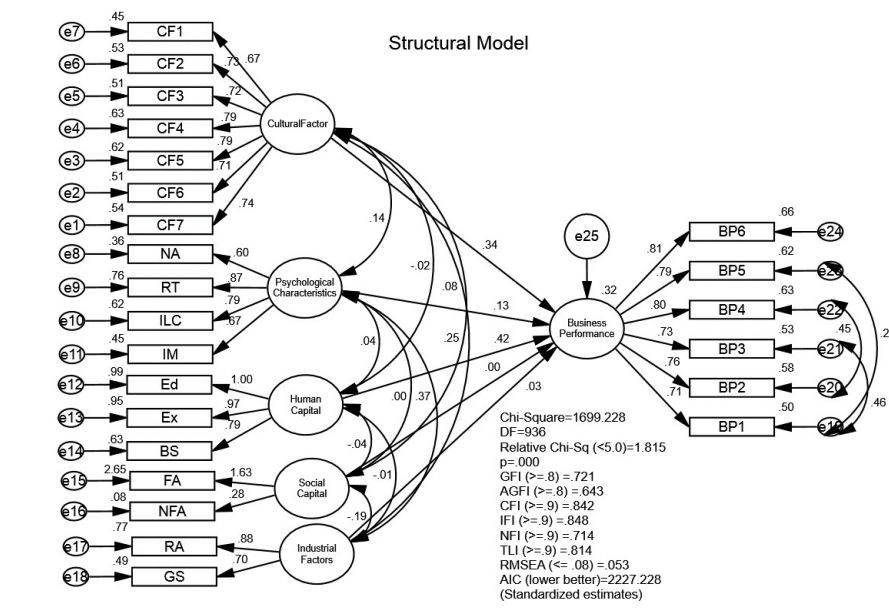


Figure 1. Age Group as a Moderator

Based on the recommendation made by Hair et al. (2010), if any three or four of the goodness-of-fit indices are within the threshold, then the entire model is fit and the model is acceptable for further analysis. In this study, the relative chi-square for both measurement residuals and unconstrained models were less than 5.0, CFI, TLI and TLI were closer to 0.90, whilst RMSEA was less than 0.08. Thus, the structural model met more than four goodness-of-fit indices.

Table 1. Moderating effect of Age on the Overall Model

Model	DF	CIMIN	P	Decision
Measurement weights	54.000	72.449	0.048	Significant
Structural weights	69.000	84.361	0.101	
Structural co-variances	114.000	159.494	0.003	
Structural residuals	117.000	163.935	0.003	
Measurement residuals	198.000	342.745	0.000	

The results indicated that, the direct relationship between the factors of business performance among 296 respondents found that, psychological characteristics ( $\beta = 0.141$ ,  $CR=2.183$ ,  $p= 0.029$ ), human capital ( $\beta = 0.280$ ,  $CR=4.785$ ,  $p= 0.000$ ), social capital ( $\beta = 0.226$ ,  $CR=2.920$ ,  $p= 0.003$ ), industrial factor ( $\beta = 0.194$ ,  $CR=2.790$ ,  $p= 0.005$ ), and cultural factor ( $\beta = 0.172$ ,  $CR=2.613$ ,  $p= 0.009$ ) had a notable and positive relationship with business performance of the Muslim women entrepreneurs in Sri Lanka.

Further about the moderation effect of demographic variable this study divided age into four groups of the Muslim women entrepreneurs namely, below 30 years, 30-40 years, 40-50 years, and above 50 years for testing the moderation effect of age on the relationship between the determinant variables and business performance. Based on the finding of the study, most of them belonged to the age bracket of 40 to 50 years old (42.0%) followed by over 50 years.

The indices of measurement residuals, as well as the unconstrained models are shown in Table 1 and showed that the measurement residuals is greater than unconstrained based on  $X^2$  (CIMIN)=342.745;

df=198; p=0.000. Hence, the unconstrained model was found to be better than the measurement residuals model. Therefore, there is an existence of moderation effect of age on the determinants of business performance in overall model. Table 1 indicates that measurement residuals showed a significant p-value at 0.001 which was less than the alpha value. Hence, there was a significant moderating effect in age groups between the independent and dependent variables. This led to the testing of the moderating effects of individual path.

**Table 2.** Results of Moderation Effect of Age on Relationship between the Independent Variables and Business Performance

Path		B	S.E.	Beta	C.R.	P	Decision
<b>Business ← Performance</b>	<b>Psychological Characteristics</b>						<b>Not Significant</b>
Age below 30 years		1.058	0.769	0.320	1.376	0.169	
Age 30 to 40 years		0.624	0.520	0.267	1.200	0.230	
Age 41 to 50 years		0.143	0.086	0.157	1.663	0.096	
Above 50 years		0.153	0.146	0.130	1.048	0.295	
<b>Business ← Performance</b>	<b>Human Capacity</b>						<b>Significant</b>
Age below 30 years		0.057	0.054	0.114	1.049	0.294	
Age 30 to 40 years		0.281	0.161	0.249	1.751	0.080	
Age 41 to 50 years		0.053	0.069	0.068	0.764	0.445	
Above 50 years		0.355	0.099	0.421	3.572	***	
<b>Business ← Performance</b>	<b>Social Capacity</b>						<b>Significant</b>
Age below 30 years		0.201	0.119	0.283	1.685	0.092	
Age 30 to 40 years		0.244	0.209	0.218	1.165	0.244	
Age 41 to 50 years		0.184	0.092	0.253	1.991	0.047	
Above 50 years		0.013	0.156	0.005	0.081	0.935	
<b>Business ← Performance</b>	<b>Industrial factor</b>						<b>Significant</b>
Age below 30 years		0.325	0.298	0.152	1.092	0.275	
Age 30 to 40 years		0.006	0.203	0.005	0.029	0.977	
Age 41 to 50 years		0.399	0.138	0.359	2.900	0.004	
Above 50 years		0.040	0.169	0.030	0.237	0.813	
<b>Business ← Performance</b>	<b>Cultural factor</b>						<b>Not Significant</b>
Age below 30 years		0.027	0.136	0.034	0.202	0.840	
Age 30 to 40 years		0.218	0.169	0.174	1.294	0.196	
Age 41 to 50 years		0.158	0.110	0.139	1.441	0.150	
Above 50 years		0.321	0.116	0.336	2.758	0.006	

Table 2 shows the results of the moderating effect of age on the independent and dependent variables. It can be seen that the p-values for all the age groups were not significant in the relationship between psychological capital and business performance at 0.05 level of significance. However, those in the age group of over 50 years old showed full and significant moderating effect at 0.01 levels of significance between human capital and business performance ( $\beta=0.355$ ,  $p=0.000$ ), and between cultural factor and business performance ( $\beta=0.321$ ,  $p=0.006$ ) at 0.05 level of significance. For the relationship between social capital, industrial factor and business performance, a full and significant

moderating effect was found on the age group of between 40 and 50 years ( $\beta=0.184$ ,  $p=0.047$ ) at 0.01 significant level and ( $\beta=0.399$ ,  $p=0.004$ ) at 0.05 levels of significance, respectively.

Overall, there is a significant moderation of age in the relationship between human capital, social capital, industrial factor, cultural factor and business performance. However, age is not a significant moderator on the relationship between psychological characteristics and business performance.

The relationship between human capital and business performance was discussed in this study as well, with moderation effect of age found in the relationship between human capital and business performance, particularly amongst the Muslim women entrepreneurs who are over 50 years age. This is an indication that age has a significant effect on the relationship between HC and BP, particularly among the Muslim women entrepreneurs who are over 50 years age ( $\beta = 0.421$ ,  $p=0.001$ ). This might suggest that Muslim women entrepreneurs who are over 50 years are expected to have more business knowledge, experience and business skill. However, only the business skills and experience significantly contributed to the human capital construct, over 50 years were able to learn more business experience and skills because of their maturity than the other age groups.

The relationship between social capital and business performance was discussed in this study with moderation effect of age, this study reveals that, age moderate the relationship between SC and BP. This is an indication that age has a significant effect on the relationship between SC and BP, particularly among the Muslim women entrepreneurs who are 40-50 years age ( $\beta= 0.253$ ,  $p=0.047$ ). Thus, age was also found to moderate the relationship between social capital and business performance, particularly amongst the Muslim women entrepreneurs who are between 40 to 50 years old. This might suggest those who are 40-50 years in the age were able to make network from nonfamilial affiliation which was found significantly than the other groups.

The relationship between Industrial factor and business performance was discussed in this study with moderation effect of age, this study reveals that, age moderate the relationship between IF and BP. This is an indication that age has a significant effect on the relationship between IF and BP, particularly among the Muslim women entrepreneurs who are between 40-50 years age ( $\beta= 0.359$ ,  $p=0.004$ ). That is, age also moderates the relationship between industrial factor and business performance, particularly amongst the Muslim women entrepreneurs who are between 40 and 50 years old. This might suggest that, this age group take much effort to devote to making their business success by finding institutional support as well as find them selves easy to access the resources.

Finally, the relationship between cultural factor and business performance was discussed in this study with moderation effect of age, this study reveals that, age moderate the relationship between CF and BP. This is an indication that age has a significant effect on the relationship between CF and BP, particularly among the Muslim women entrepreneurs who are over 50 years age ( $\beta= 0.336$ ,  $p=0.006$ ). That is, relationship between cultural factor and business performance, age also moderates the relationship, particularly amongst the Muslim women entrepreneurs who are over 50 years old. This is because of older women in general adhere cultural norms than the younger ones in such a way to getting husband advice in decision making, and expected to fulfil her family responsibilities consistent with the norms in Muslim culture. Hence, hypothesis 1 is partially accepted in this study.

#### 4. Conclusion

The systematic investigation of factors influencing business performance of Muslim women entrepreneurs in Sri Lanka examined the applicability of five empirical perspectives such as psychological characteristics, human capital, social Capital, industrial factor and cultural factor with the moderating effect of demographic factor-age.

With regard to the moderation effect of age on the determinants of business performance, the study found that there is a moderation effect of age on the overall model. The study concluded that age moderate the relationship between independent variables and business performance. Moreover, the age category does not moderate the relationship between PC and BP. this might suggest that

to have a higher need to achieve, to be risk taking, to have locus of control and to be independent, age is not a matter of fact. Among the dimensions of the psychological construct, it is also noted that, findings suggested only risk taking significantly contribute on the business success of Muslim women entrepreneurs. Hence, a Muslim women entrepreneur to be a risk taker, there is no difference between age categories. In Muslim families in Sri Lanka, it can be observed that, female children after their puberty are being kept under more vigilance of their parents as well as grandparents. They are not mostly allowed to do any activities as their own that would be monitored by the elder in their family such as parents and grandparents. Hence from the child hood onwards their personality characteristics developed in such a manner. But the moderation of the relationship between HC and CF with BP exists among over 50 year age group. This might suggest that Muslim women entrepreneurs who are over 50 years are expected to have more business knowledge, experience and business skill. However, only the business skills and experience significantly contributed to the human capital construct, over 50 years were able to learn more business experience and skills because of their maturity than the other age groups. And in terms of culture, older women in Muslim families generally adhere cultural norms than the younger ones in such a way to getting husband advice in decision making, and expected to fulfil her family responsibilities consistent with the norms in Muslim culture. The relationship between SC and IF with BP exists 40-50 year age category. This might suggests those who are 40-50 years in the age were able to make network from non-familial affiliation which was found significantly than the other groups and this age group take much effort to devote to making their business success by finding institutional support as well as find themselves easy to access the resources. The finding suggests that older entrepreneurs understand the cultural norms better and this could be the reason why they are allowed to have better access to non-familial support which is beneficial to their business pursuits.

A significant contribution is the inclusion of a comprehensive set of demographic factors in explaining the relationships between the constructs and business performance, taking the cue from Baum et al. (2001) that a moderation model can be helpful to test more complex and causal effect, which was evident from the outcomes of the study. Future researches can re-examine the moderating effect by including some other demographics, as well as more dimensions from independent variables.

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