

## **Gender Based Entrepreneurial Mindset and Their Influence on Performance of Small and Medium Manufacturing Firms**

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### **Abstract**

*The recent decades has seen many women venturing in manufacturing businesses and competing alongside the male entrepreneurs. They have competitively ventured in all sectors like transport, banking, and commercial services and others. However, research has indicated that their performance in business in terms of market growth, market share, sales volumes, and employment creation among other performance indicators is far much below their male counterparts. This research explores on the gender based entrepreneurial mindset measured through innovativeness, business alertness and creativity and their influence on performance of small and medium manufacturing firms. It looks in to the effects of socialization, entrepreneurial orientation and other factors that act as barriers to better performance by female entrepreneurs. The performance indicators like market share, growth, change in number of employees and sales volumes over five years period was used to measure performance. Logistic regression analysis indicated that male entrepreneurs performed better in all performance indicators than the female entrepreneurs. All stakeholders need to address the barriers by re-orienting the women entrepreneurs by setting hands on programs that will prepare them for what is really on the ground and change focus from a classroom theory to a real industrial experience.*

*Keywords: Gender, interaction, Performance*

## **1. Introduction**

### *1.1 Background Information*

Many decades have seen the economy and the global market being dominated by male entrepreneurs. They have controlled all manner of sectors ranging from banking, transport, commercial services to the manufacturing industry. They have started ventures and grown them to big and enviable business empires contributing greatly to the Gross Domestic Products (GDP) of any economy. In the last one decade however, the female entrepreneurs have joined the global market in similar areas and observation shows that they are competing adequately well.

A study conducted in the Industrial Area Nairobi revealed that although the number of women entrepreneurs have tremendously increased in the last one decade, the male entrepreneurs business performance was much higher than their female entrepreneurs despite the fact that they both operate in the same environment, target the same market and have similar access to resources deemed crucial for growth.

The entire society has focused on promoting gender equity in all areas, be it education, job positions or in investment ventures. This has given rise to the number of women-owned businesses. Irrespective of much effort and support to the female entrepreneurs, there exist a speculative concept on differences between male and female entrepreneurs and their businesses performance.

Past research findings and speculations have been largely theoretical, and little progress has been made in understanding whether such differences are pervasive, let alone why they might exist. As a result, public policy-makers have had little guidance on such difficult issues as whether or not unique training and support programs should be designed for women. The government, financial institutions and non government organisations who put so much effort in promoting enterprises' performance have little to rely on but their own "gut instinct" in assessing whether women's and men's businesses are likely to run in similar ways, or whether they might be run in different but equally effective ways if provided with financial resources.

A research conducted by Kalleberg and Leicht, 1991, fronts two concepts as to why there is a variation in the gender performance i.e the liberal feminism concept and social feminism concept.

According to them the Liberal feminist theory suggests that women are disadvantaged relative to men due to overt discrimination and, or to systemic factors that deprive them of vital resources like business education and experience. Previous studies that have investigated whether or not women are discriminated against by lenders and consultants, and whether or not women actually do have less relevant education and experience, are consistent with a liberal feminist perspective. Those empirical studies that have been conducted provide modest evidence that overt discrimination, or any systematic lack of access to resources that women may experience, impedes their ability to succeed in business. Indeed studies reveal that women are not discriminated at all as far as business education is concerned. In Kenya the formal education is actually accessible to both male and female at all levels. The question is, 'is there a variation in business performance due to gender?'. This forms the basis of this study. The researcher sought to establish the interaction between the specific gender business behavior and business performance.

## **2. Literature Review**

### *2.1 Theoretical Framework*

Social feminist theory propagated by Kalleberg & Leicht, (1991), suggests that, due to differences in early and ongoing socialization, women and men do differ inherently. However, it also suggests that this does not mean women are inferior to men, as women and men may develop different but equally effective traits. Previous entrepreneurship studies that have compared men and women on socialized traits and values are consistent with a social feminist perspective. These studies have documented few consistent gender differences, and have suggested that those differences that do exist may have little impact on business performance.

While this interpretation of past findings is relevant to this article, it does not clearly indicate whether female and male entrepreneurs differ in performance and if they do how? There are still large gaps in our knowledge on this issue and scholars continue to debate on it. In particular is the gap on understanding whether or not potential differences related to discrimination or socialization of each gender into business matters (Kalleberg & Leicht, 1991). According to their study conducted in Europe from a large, randomly selected sample of entrepreneurs in the manufacturing, retail, and service sectors, there were few differences in the education obtained by males and females, or in their business motivations. Women entrepreneurs were, however, found to have less experience in managing employees, in working in manufacturing sector, or in helping to start-up new businesses. Women's firms were also found to be smaller than men's. These firms were found to have lower growth in income over two years, and to have lower sales per employee. Regressions undertaken to examine predictors of a range of business performance indicators suggested that women's lesser experience in working in similar firms and in helping to start-up businesses may help to explain the smaller size, slower income growth, and lesser sales per employee of their firms.

These scholars recommended to the policy-makers that, systemic factors that afford women less access to experience must be addressed.

Support for classroom training or related advisory activities may not be warranted since there is little evidence that women lack access to relevant classroom education. However, programs that help increase women's access to hands-on experience in starting firms or in working in the industry in which they hope to set up business did seem advisable.

In-class education or counselling would not seem to compensate for lack of real-world experience, which suggests that any available funds should be directed more toward initiatives centred on apprenticeship programs rather than towards those centred on classroom teaching.

A study conducted by Johan Frishammar & Sven Ake Horte,( 2007) on the role of market orientation and entrepreneurial orientation for new product development performance in manufacturing firms Revealed three dimension that determine the performance of any individual entrepreneur. These are entrepreneurial orientation ( EO) ,Speculation Orientation (SO) and Product Push Orientation (PPO).

#### **2.1.1 Entrepreneurial Orientation**

Entrepreneurial orientation has been used to refer to the strategy-making processes and styles of firms that engage in entrepreneurial activities. This is said to be enhanced by culture, education and the environment surrounding an individual. This is manifested in five dimensions which include;

Autonomy, innovativeness, proactiveness, risk taking tendencies and competitive aggressiveness

(Lumpkin and Dess, 1996). These are traits that can be inherent and enhanced by culture, education and environment. Based on Lumpkin and Dess's conceptualization of entrepreneurial orientation (EO), the society has a propensity to generate autonomous, risk-taking, innovative, competitively aggressive and proactive entrepreneurs, traits that firms will depend on to perform well. The role of economic, political/legal, and social factors as moderators of the relationship between culture and entrepreneurial orientation (EO) can also not be understated.

### 2.1.2 Speculation Orientation

Speculation orientation ranges from high risk tolerance to high risk avoidance. Accordingly, a high speculative orientation means that the individual perceives innovation to be marginally important. This is clearly demonstrated in the study conducted in the industrial area Nairobi. In this research, the 120 male entrepreneurs and 94 female entrepreneurs were compared using various performance indicators including market performance, market share, and sales volume among others. Their level of innovativeness, creativity and business alertness determined their performance. The findings revealed that female entrepreneurs rated low on innovativeness and business alertness but substantially well in creativity.

Using the various performance indicators male entrepreneurs performed better on all of them as shown in the following graphical presentations. The entrepreneurs were measured using various performance indicators like the market share, market growth, the number of employees and sales increase among others. The following graphical presentations show the variations between male and female entrepreneurs.

### 2.1.3 Product Push Orientation

In the case of product push, the range is between a single product and highly diversified product lines. The product push strategy focuses on producing a product of better quality. This creates customer loyalty, better sales volume and premiums. When a business is product orientated, it will base its products or services on what it perceives as its internal organizational strengths. Firms with a product orientated approach to selling base its strategies on internal decisions and not on the customer feedback or survey findings. Whether this approach aids performance or not, can be another area of study. There is not much empirical evidence which gender will commonly embark on this strategy. Global statistics reveal that female-owned that are thriving and have grown to be enviable empires are hard to come by.

It's estimated that only a small minority of between 25 to 30% of enterprises owned and operated by women perform moderately well according to Zouera Youssoufou, a manager of International Finance Corporation's (IFC's) Gender Entrepreneurship Markets (GEM) unit. To prove his point, he gave some empirical evidence that female SME owners have decidedly refused to take advantage of the finances made available to them. In Uganda, for example, 39% of registered SMEs are owned by women and on average only 9% have come seeking credit from all the financial providers available. This is in comparison to the male entrepreneurs who out of 78.9% registered SMEs, 51% vigorously seek the financial assistance to build their ventures.

There appears to be a trend that as loan size offers increase, loans required by women decrease which is the opposite for men. What's stopping the women to reach out to greatness or what hinders women to perform competitively well with their male counterparts. While access to finance is one key constraint for women entrepreneurs that development finance institutions (DFIs) can and should tackle other roadblocks to growth, so just what are these barriers that causes women to lag behind? Al Amana, a leading Moroccan microfinance institution made this a subject of study in 2005 exploring just this issue. Charged

with this task, Shapero, A., & Sokol, (1982), studied the social orientation in Morocco and said... “While the barriers cited by the Moroccan microfinance female clients varied, they boiled down to some combination of lack of capacity and/or lack of desire for growth”. Women’s both desire and capacity can be affected by traditional gender roles and mores, for example, a society may have stigmas against women working (dampening desire to grow one’s business) or barriers to women’s interaction with men in the market (reducing access and capacity for Growth). Interviews with two clients exemplified this dynamics.

Rabia Helali trained as a seamstress in Saudi Arabia. When she returned to Morocco and married, she fell back upon what she knew i.e sewing traditional women’s clothing and set up a shop for herself.. Two years later, she received a loan from Al Amana bank, and she felt confident that her business will grow. Through her hard work she bought a plot of land to build a shop on it, she planned to buy more machines, and hire additional workers. She was a woman with vision, skills, and an education. With both the desire to expand her business and the capacity (if the loans keep coming), Rabia had set at achieving her dreams. However, she was quick to retaliate that she would not want to expand so much for this could cause problems with her husbands. She also admitted that another greatest limitation is time. She has to balance the demands of her family with those of her business, and her family must always come first.

Fifty-four female entrepreneurs in Greater Sudbury, Canada, were also surveyed in 2009 to determine the motives for self-employment, success factors, and problems they perceived. Results revealed that primary reasons for owning a business were personal satisfaction and growth, to have fun and to prove they could do it. These results showed that Canadian female small business owners were driven by intrinsic factors as opposed to monetary motives. In terms of business success variables, the most important to them were the entrepreneurs’ reputation for honesty and good customer service. These Canadian female entrepreneurs faced a big challenge of a weak economy, high business taxes and unavailability of skilled labour. Results on success factors and perceived problems were consistent with those from previous studies using similar instruments both in Canada and other countries, including Turkey. However, while intrinsic rewards characterised Canadian respondents’ motives, Turkish entrepreneurs were primarily driven by economic rewards. (Scherer, R. F., Brodzinski, J. D., & Wiebe, F. A. 1991).

The last one decade has seen growing research interest in female entrepreneurship. This has been coincident with the increasing contribution of female-owned small and medium-sized enterprises (SME’s) to economic growth, as well as the marked increase in the numbers of small firms controlled by women. For example, in Canada, the number of SMES ran by females has grown fifty percent over the last fifteen years. Women entrepreneurs now represent one-third of the total population of Canadian entrepreneurs. In fact, the number of Canadian companies managed by women has been growing at an average annual rate of 3.3 percent since 1989. This growth rate is 60 percent higher than for male entrepreneurs (CIBC World Markets 2005). In 2008, there were more than 910,000 women entrepreneurs in Canada and 46% of firms with at least one female owner (Statistics Canada 2009). These businesses employed 570,000 people and generated combined annual revenues of \$72 billion representing approximately 8% of all revenues from Canadian SMEs (Carrington 2006). Statistics Canada (2009) estimates that 16% of all businesses in the country have a female as a majority shareholder or owner.

However, despite clear evidence of an escalation in entrepreneurial activity by women, females are still only half as likely as men to start a business, grow it to a big empire. (Minniti, Arenius, and Langowitz, 2004; Reynolds, Bygrave, and Autio 2004). At the same time, firms owned by women are smaller and

less likely to be oriented towards growth when compared to male-owned businesses (Minniti, Arenius, and Langowitz, 2004; Rooney et al. 2003; Anna et al. 2000; Du Rietz and Henrekson 2000; Orser, Hogarth-Scott, and Wright 1997).

According to the Global Entrepreneurship Monitor (2007), while the participation of women in business is constantly increasing, there is still a lower rate of female participation in entrepreneurship, indicating that some gender differences do exist. Given the substantial contribution of female-owned SMEs to the economy, as well as the aforementioned facts, it was deemed relevant to try to improve the knowledge in that area by investigating the motivations, success factors, and problems facing female entrepreneurs globally. The research looks that the possible factors that inhibits better performance by female entrepreneurs. The entrepreneurial orientation, speculative orientation and product push orientation plays a major role in creating a performing entrepreneurs. These orientations not well provided by the society, the economy and the government inhibit the female performance. They inhibit three components in women i.e Motivations, Success Factors, and Barriers yet these are key to the entrepreneurship process and better performance.

A study by Durand and Shea, (1974) investigating the entrepreneurial activity over a period of 18 months among 22 male and 7 female black adults engaged in operating small and medium enterprises. They found out that those entrepreneurs with high n-ach (need for achievement) and exterior locus of control significantly performed well and vice versa. One of the objectives of this research work was to understand the association between the gender and different levels of Entrepreneurial efficacy. In order to achieve this objective, a chi-square test was conducted. The findings obtained a chi-square value (45.633) - statistically significant at 0.01 level. They had set to test the hypotheses

Ho: Entrepreneurial efficacies do not differ based on their gender. (Table 1)

Table 1 shows the mean, standard deviation and 't' value corresponding to the differences in the level of entrepreneurial efficacy based on their gender. It is observed from the table that the female entrepreneurs and the male entrepreneurs have different mean scores of entrepreneurial efficacy. The findings reflect that there is a higher score of the entrepreneurial efficacy of male entrepreneurs than the female entrepreneurs.

The researchers recommended that there is need to encourage the Growing intensity and extend support with significantly designed packages of the technical and financial assistance from various institutions to female entrepreneurs. They reported that financial sector also needs to extend their maximum support in the form of incentives, loans, and schemes towards women entrepreneurs. The government should assist the financial institutions support, set training programs and workshops to enhance entrepreneurial efficacy in women. A study conducted in the industrial area Nairobi Kenya from 220 entrepreneurs revealed that male entrepreneurs performed better on all performance indicators used. These indicators were market share, market growth, and change in the number of employees, change in the number of products introduced to the market, number of offices opened and the sales volumes over a five years period.

### **3. Research Methodology**

#### *3.1 Research Design*

The researcher used exploratory research to understand the effect of interactive relationship between gender and entrepreneurial performance as exhibited through innovations, creativity and business

alertness .This design allowed the researcher to deepen the understanding of the relationship between the variables. A survey design was used to explore this aspect. Both quantitative and qualitative approaches were used. The quantitative analysis assisted the researcher obtain the quantifiable data on the variations in performance between various entrepreneurs while the qualitative analysis sought to measure the specific traits that exist in various entrepreneurs that were used to classify them either as performing or not performing entrepreneurs. The researcher used the correlation analysis to establish the relationship between the variables in the study. The approach enabled the researcher to examine whether or not the expected relationships existed and to what extent.

### *3.2 Population*

.The target population was all small and medium sized manufacturing firms in Nairobi Industrial Area distributed across 6 sectors and involved in the production and distribution processes. The sectors included ; food and beverage 214, leather and footwear 43, motor vehicle accessories 104 , plastics and rubber 44 , textile and apparels 112 and wood and furniture 108. From the directorate of Kenya association of manufacturers of 2008, there are a total of 625 firms that formed the target population (KAM, 2008).The population was chosen since it was operating in the same area and hence exposed to the same business environment .In an empirical study by Gituro and Awino, on supply chain management, they found out that there are 2626 registered firms operating in Nairobi, Meru, Eldoret and Kisumu. Out of these 24% are located in Nairobi industrial area and these formed the population in this study (Gituro W, Awino Bolo 2009).

### *3.3 Sampling Design*

The researcher used a two stage sampling approach, the first was stratified sampling method which enabled the researcher divide the firms according to sub-sector and in the second stage, a simple random sampling was used. One of the characteristics of small and medium enterprise in Kenya is that they employ between 10 and 100 employees. These firms were either autonomous or running branch entities in other towns and must be registered by the registrar of companies as a private Limited Company.

### *3.4 Sample Size*

The population was large and stratified and therefore to get the sample size for the proportions, the researcher used a formula provided by C. Kothari, 2007 since it yielded good representation of the population. The population was composed of 625 registered firms from which a sample of 215 firms were sampled (C. Kothari, 2007) as per their strata shown. (Table 2)

### *3.5 Data Collection Instrument*

The researcher developed questionnaires that enabled the capturing of the various variables. Use of questionnaire was appropriate since the sample was large and also assisted in translating the research objectives into specific questions to test the hypothesis. Use of questionnaire was also appropriate since the respondents were widely scattered. The instrument had both open and closed ended questions. The questionnaires were administered to the top management of the selected firms, the researcher tested its reliability by conducting a pilot research on thirty entrepreneurs. The findings of this pilot testing revealed that the researcher could not measure the effects of the independent variable on firm's performance as the firms were from varied industries and hence facing different business challenges and with different target markets. This necessitated the amendment of the original questionnaire to enable the researcher place all

the firms on a level where the independent variables effects could be measured in any firm irrespective of the sectors it belonged.

### 3.6 Data Collection Procedure

A total of 230 questionnaires were administered to the top management and the middle level managers. General observation was also used to understand the innovations that have taken place in the firm and the level of creativity.

In the data collection the variables were measured. This called for analyzing the performance indicators that had come about through the entrepreneur's creativity, business alertness and innovativeness per gender. An analysis on factors interaction was done to show the interaction between the entrepreneur's characteristics (gender) and business performance.

#### 3.6.1 Firm Performance

The performance in this case was in terms of the market share and growth, sales volume, increased number of employees, increased number of products introduced to the market in a period of one year and general expansion indicators among others per gender.

### 3.7 Hypothesis Testing

The following null and alternative hypothesis was developed to assess if gender has any moderating effect on relationship between mindset and business performance.

$H_0$ : Gender has no significant moderating effect on relationship between Mindset and business performance

$H_1$ : Gender has significant moderating effect on relationship between Mindset and business performance

### 3.8 Data Analysis

Descriptive statistics such as the rate of response, the frequency distribution, the mean and the standard deviation were used at the first stage. Establishing the goodness of the data leads to credibility to all subsequent analysis and findings since it measures the reliability and validity of the measuring tools used in the study (Sekaran, 2003).

Logistic Regression Analysis was carried out where a two-predictor logistic model was fitted to the data to test the research hypothesis regarding the interaction between gender and firm's performance based on innovativeness, creativity and business alertness. The interaction between these traits and the performance indicators determined the level of overall firm's performance. The following model was used;

$$\text{Logit}(p) = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_{12} X_1 X_2 + \beta_{13} X_1 X_3 + \beta_{23} X_2 X_3 + \beta_{123} X_1 X_2 X_3 + e$$

where;  $\text{Logit}(p) = \log\left(\frac{p}{1-p}\right)$  and  $p$  is the probability of performing positively on any performance

indicators,  $X_1$  is the level of innovativeness  $X_2$  is the level of business alertness and  $X_3$  is the level of creativity. Notice that the model includes all the other interaction terms based on different aspects of mindset.

This model defines a binary logistic model which was fitted using a forward conditional logistic regression method. This allowed for automatic selection of relevant variable and their interactions.

### *3.9 Moderating Effect of Gender*

Moderating effect can be established if a certain variable of interest is found to be modifying the relationship between the independent variable and the predictors. There are several ways of testing this effect but the research in this case focused on fitting sub-models where the grouping variable is the suspected moderator (gender). If the sub-models picked the same predictors, then the moderating effect does not exist.

## **4. Research Findings**

### *4.1 Demographic Analysis*

The study targeted two hundred and thirty (230) firms which can be classified as small and medium manufacturers in various industries. The researcher required a minimum sample of 215 entrepreneurs forming 100% of respondents required for the study. Out of 230 questionnaires administered, 220 chief executive officers responded to the study questionnaires while 10 firms failed to return the questionnaires. one hundred and twenty male entrepreneurs and 94 female entrepreneurs responded to the research items. The frequency analysis was done, mean scores established and all revealed that male entrepreneurs scored higher on all performance indicators.

The mean scores of each performance indicators results are graphically shown in figures 1-5. (Fig 1-5)

Figure 1 illustrates that the male entrepreneur's market share in comparison with their main competitors increased from a mean of 22.0 to a high of 35.0 between the years 2006 to 2010. This implies better performance as the years progressed. This performance is better than that of the women entrepreneurs whose market share mean had increased to a high of 28.0 in 2010 as opposed to males market share increase of 35.0. The research revealed that 92 (76.6%) out of 120 male entrepreneurs were able to grow their market at a rate 5-10 % in the year 2006. The number of entrepreneurs growing at that same rate dropped to 50(42.0%) and kept on dropping and by the year 2010 the number had decreased to only 14 (12.0%). However, it's worth noting that whereas the number of entrepreneurs able to grow their market at a rate between 11-20 was only 25 (20.8%) in 2006, this had increased to 61(20%) by 2007. This implies that a number of entrepreneurs growing their market at a rate of 5-10 had improved and now grew their market at a rate of 11-20 within one year. This trend continued in 2008 with the number increasing to 74(61.7%). However the number able to increase their rate of growth decreases in the subsequent years.

Growing the market at the rate above 20% looked like a challenge as the number of entrepreneurs able to grow at a rate between 21 to 30 and above were only 45(38.1%) in the year 2009 and 33(28 %) 2010. This implies that the number of entrepreneurs who were able to grow at a higher rate kept going down. In comparison the table illustrates that 73(80.2%) female entrepreneurs grew their market at the rate between 5-10% which dropped similar to their male counterparts to 54(59.3%) in 2007 and by 2010 the number had dropped to 31(33.7%), the same trend as that of men entrepreneurs as the years progressed and as the rate of growth increased.

Figure 2 illustrates that the male entrepreneurs were able to grow their market with a mean between 1.4 in 2006 to a high of 2.4 in 2010. This is a rate of 100% within five years. Female entrepreneurs were able to

grow their market with a mean between 1.31 in 2006 to a high of 1.98 in 2010. This is a rate of 67 % within five years. This is lower than their male counterparts within the same period.

Figure 3 illustrates that out of 117 male entrepreneurs, the number of employees had increased from 95 to 126 over a period of five years while for women entrepreneurs the employees increased from 60 to 66 within the same period. This is an increase of 31 and 6 respectively. In this area the male entrepreneurs have performed much better than female counterparts.

Figure 4 illustrates that 115 male entrepreneurs had a maximum of 39 products in the market by the year 2010. The mean increase to 4.82 in 2006 and to 6.48 in 2010. This was determined by the number of the products they continually introduced into the market. Similarly the women entrepreneurs increased their products in the market hence increasing their mean from 4.71 in 2006 to 6.03 in 2010. The research revealed that up to 115 male entrepreneurs had opened a maximum of 16 offices by the year 2010. The mean increased from 1.83 in 2006 to 2.96 in 2010. This was determined by the number of the offices they continually opened. Similarly the women entrepreneurs increased their offices, increasing their mean from 1.99 in 2006 to 2.74 in 2010. The women entrepreneurs are still seen to be behind their male counterparts in this performance.

Figure 5 illustrates that the male entrepreneurs were able to increase their sales volume from 72800 shillings to 1200000 within a period of five years. This marked an increase of 225,440 shilling per year. In contrast the sales volumes for the female entrepreneurs were inconsistent ranging from a high of 60000 to a low of 30000. There is a noticeable difference in performance in this area between the male and female entrepreneurs.

The men entrepreneurs are doing exemplary well. The male entrepreneurs were able to open up to a maximum of 39 branches over a period of 5 years while their female counterparts had opened up to a maximum of only 14 branches within the same period. Again the male are performing better in this case

#### *4.2 Logistic Regression Results*

Logistic regression model was fitted through forward conditional method and the best model (the one with the largest number of terms) was taken. For all the reported terms, a p-value <.05 on each variable or the interaction of variables indicated significant influence. The direction of the influence is depicted by the sign preceding the coefficient.

##### *4.2.1 Office Performance*

The general model (for both males and females) is as given below;

$$\text{Logit}(p) = 2.548 - 1.26 X_2 + 0.049 X_1 X_2 X_3$$

This model reveals that level of innovativeness has no influence on the number of offices that an entrepreneur opens while level of business alertness contributes negatively to this indicator. The interaction of the three variables i.e level of innovativeness, business alertness and creativity however contribute positively towards the increase in the number of offices opened. It's possible that the more an entrepreneur becomes business alert, the more efficient he/she may become and utilizes the existing offices more other than opening new offices.

Gender based models were generated by splitting the data into two; While there model for males was found to be

$$\text{Logit (p)} = 3.598 - 1.047 X_2$$

The model for Females could not be found. This implies that male entrepreneur's business alertness contributes negatively towards office performance. The male entrepreneurs open less and less offices as they become more business alert. This implies business alertness contributed negatively to male entrepreneur's performance office. It means the more alert the male entrepreneurs became, the less offices they opened. For female entrepreneurs, the number of offices they opened was not influenced by their level of innovativeness, business alertness or creativity.

#### 4.2.2 Sales Performance

The general model (for both males and females) is a given below;

$$\text{Logit (p)} = 2.774 + 0.661 X_2 X_3$$

This implies that the interaction between level of business alertness and creativity contributes positively towards sales performance but innovativeness has no significance in sales performance.

$$\text{Males: Logit (p)} = -2.154 + 0.577 X_2 X_3$$

This implies that business alertness and creativity are significant in the performance of sales for male entrepreneurs. There was no relationship found between the female entrepreneurs and the interaction between the variables. The female performance level of innovativeness, business alert and creativity did not influence their sales performance.

#### 4.2.3 Market Performance

The general model is a given below;

$$\text{Logit (p)} = 6.973 - 2.106 X_1 - 1.171 X_2 X_3 + 0.327 X_1 X_2 X_3$$

This implies that innovativeness on its own contributes negatively towards market performance. Similarly the interaction between innovativeness and business alertness will have the same negative effects to market performance but the interaction between the three variables contributed positively towards market performance.

$$\text{Males: Logit (p)} = -3.228 + 0.771 X_1$$

For male entrepreneurs the level of innovativeness on its own promotes positive market performance.

$$\text{Females: Logit (p)} = 10.372 - 3.056 X_1 - 2.323 X_2 X_3 + 0.666 X_1 X_2 X_3$$

This implies that for females to perform positively in the market there must exist an interaction between the three variables together. However the level of innovativeness on its own and interactions between level of business alertness and creativity have a negative influence on market performance in women entrepreneurs.

#### 4.2.4 Performance Branches

The general model could not be found but for males, the following model was found:

$$\text{Logit (p)} = 1.404 + 2.863 X_1 - 2.635 X_2$$

This implies that the level of innovativeness contributes significantly towards performance branches opened by male entrepreneurs but level of business alertness impacts negatively on the number of

branches male entrepreneurs open. It is observed that as the male entrepreneurs become more business alert they increase their performance using other strategies and not opening new branches of offices. This could be a sign of increased efficiency, the level of creativity is irrelevant to these entrepreneurs even as they continue to perform well. There was no model found for female entrepreneurs. In all the cases presented above, the grouping variable (gender) distorts the relationship between mindset and business performance and so gender has a moderating effect on this relationship.

### **Differences in mean scores**

Independent samples t-test revealed that the two groups (male and female) do not differ significantly in terms of performance indicators except in the area of offices growth in which case the females had a slightly higher mean with  $p\text{-value}=0.039$ . When similar test was applied to the mindset variables, the contrary was revealed. From the table, it can be seen that the males score is significantly higher than that of females. This could mean that females lack or have low level of mindset measures which is why could be the reason why the predictor models could not be found.

## **5. Conclusion**

The research findings indicate that the mindset of male entrepreneurs is more important than that of females in determining how their businesses perform. Men entrepreneurs traits exhibited through innovativeness, business alertness and creativity were able to interact more effectively and resulted to better performance than their female counterparts. Gender orientation is therefore a significant factor that affects the relationship between business performances through the mindset.

### *5.1 Recommendations*

To the policy-makers, this study suggests an urgent and systemic hands on apprenticeship programmes be incorporated together with classroom training to create the right skills and behaviour in women entrepreneurs. These programs should be structured in a way that they help increase women's access to hands-on experience in starting firms or in working in the industry in which they hope to set up business in and in-class education or counselling should not be seen to compensate for lack of real-world experience.

*It is recommended that the government and other economic players like Kenya manufacturers association create forums that challenge the female entrepreneur to display their innovativeness and creativity and also expose them to different business environments.*

*To the educationists, they should include education programmes in the curriculum that enhance the entrepreneurial mindset in both gender and especially in courses that are female dominated like human management, secretarial and hospitality. The programmes should include a period of industrial attachment as a course requirement.*

To other stakeholders like financiers and non government organisations, it is recommended that they gear their efforts towards promoting traits that enhance better performance in female entrepreneurs such as being Autonomous, innovative, proactiveness, risk taking tendencies competitiveness and aggressiveness. They can do this by creating competing and rewarding forums and encouraging female entrepreneurs to participate.

As the Social feminist theory suggests, early and ongoing socialization of the girl child and women is critical. There should be no discrimination between women and men. The women should be given equal access to resources, set free to develop their dreams to their highest levels without interference from family and the society.

Creating networks that involve both genders should be the endeavour of all the stake holders. A level playing ground should be set for all to play.

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## Tables and Figures

**Table 1: Mean Scores on Responses on efficacy per Gender**

S/ No	Gender	N	Mean	Std Deviation	t
1	Male	97	238.2	8.56	0.87
2	Female	23	239.7	4.94	1.03

**Table 2: List of Firms and Number of Sampled Firms**

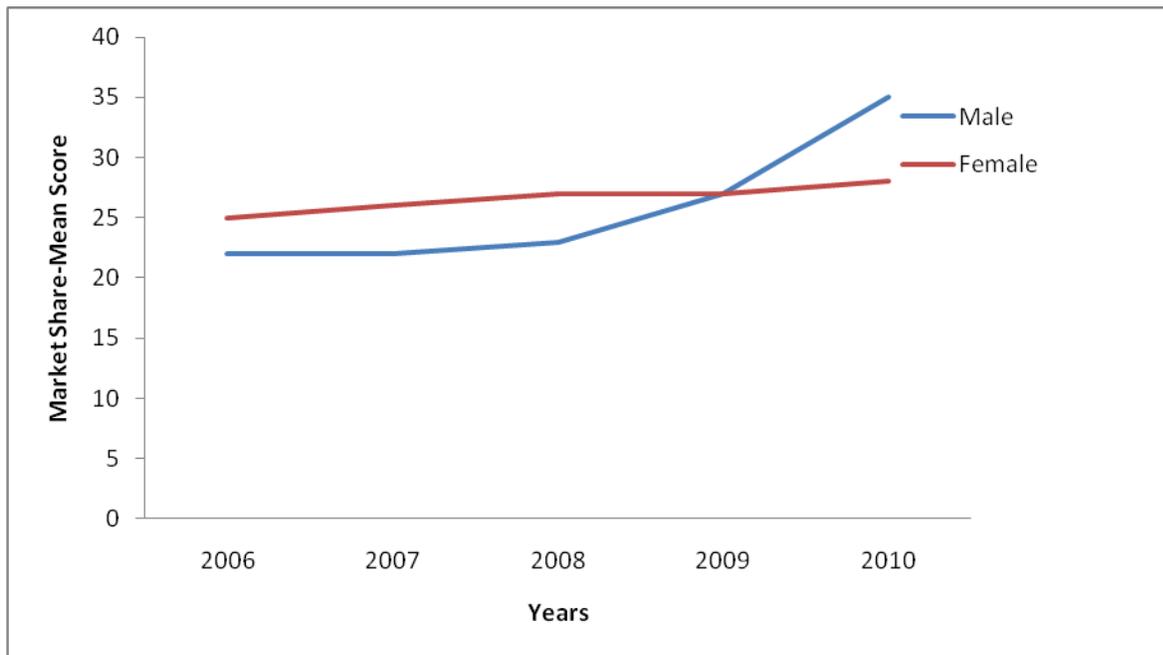
	Sector	Number of Firms	Percentage (%)	Sample Size
1	Food and Beverage	214	33	70
2	Leather and Footwear,	43	06	10
3	Motor vehicle accessories	104	18	38
4	Plastics and Rubber	44	07	16
5	Textile and Apparels	112	19	41
6	Wood and Furniture	108	17	40
	<b>Total</b>	<b>625</b>	<b>100</b>	<b>215</b>

**Table 3: Mean Scores per Gender**

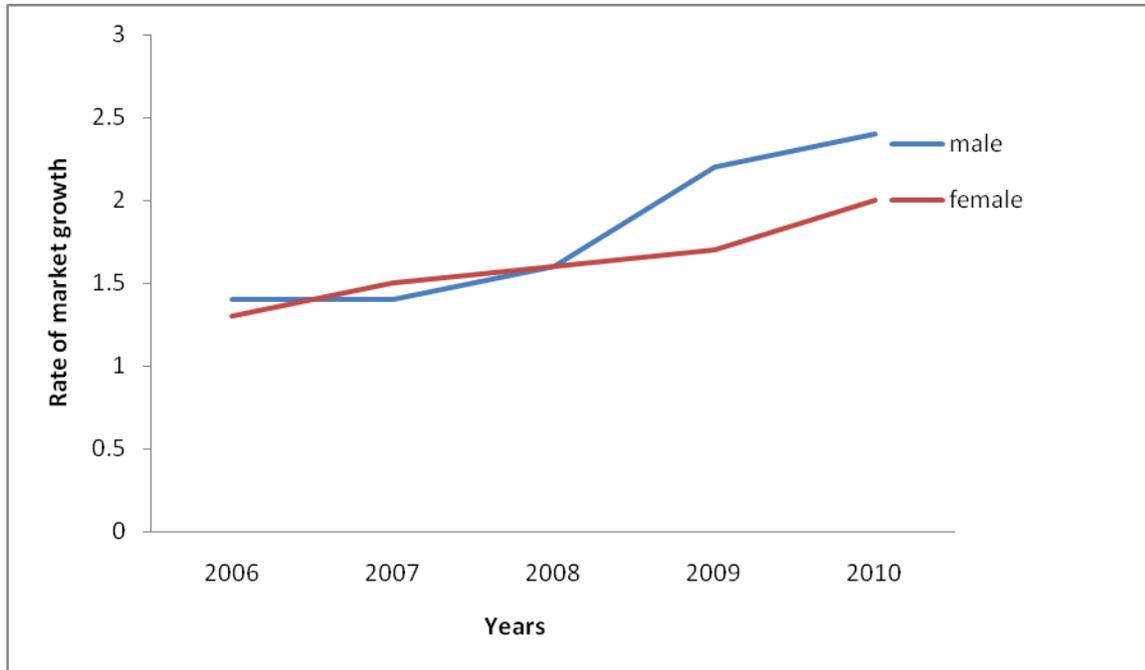
Group Statistics					
	Gender	N	Mean	Std. Deviation	Std. Error Mean
Innovativeness	Male	121	3.9817	0.66126	0.06011
	Female	91	3.1871	0.91431	0.09585
Alertness	Male	121	4.0988	0.56718	0.05156
	Female	93	3.2209	0.91524	0.09491
Creativity	Male	121	2.5041	0.50516	0.04592
	Female	93	2.3172	0.60919	0.06317
Performance branches	Male	117	0.8205	0.38541	0.03563
	Female	90	0.8444	0.36446	0.03842
Performance market	Male	116	0.4655	0.50097	0.04651
	Female	90	0.5333	0.50168	0.05288
Performance offices	Male	113	0.3451	0.47753	0.04492
	Female	90	0.4889	0.50268	0.05299
Performance sales	Male	51	0.9216	0.27152	0.03802
	Female	25	0.7600	0.43589	0.08718

**Table 4: The t-Value and Level of Significance**

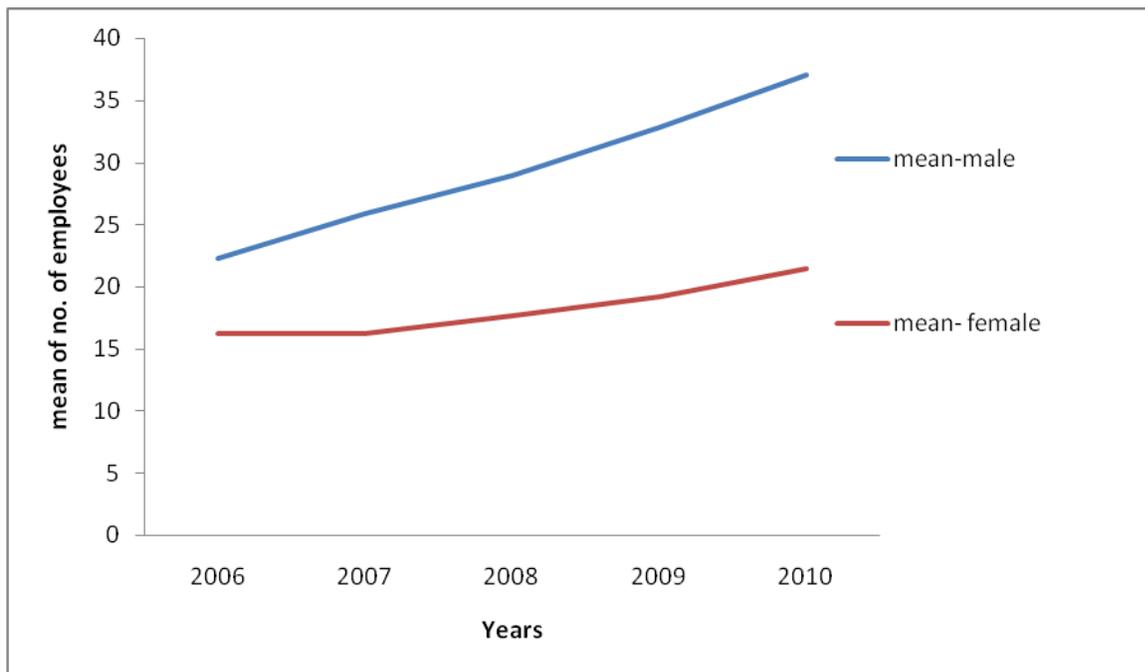
Variable	t-value	df	p-value
Innovativeness	7.343	210	P<0.001
Alertness	8.619	212	P<0.001
Creativity	2.452	212	0.015
Performance branches	-0.453	205	0.651
Performance market	-0.963	204	0.337
Performance offices	-2.082	201	0.039
Performance sales	1.982	74	0.051



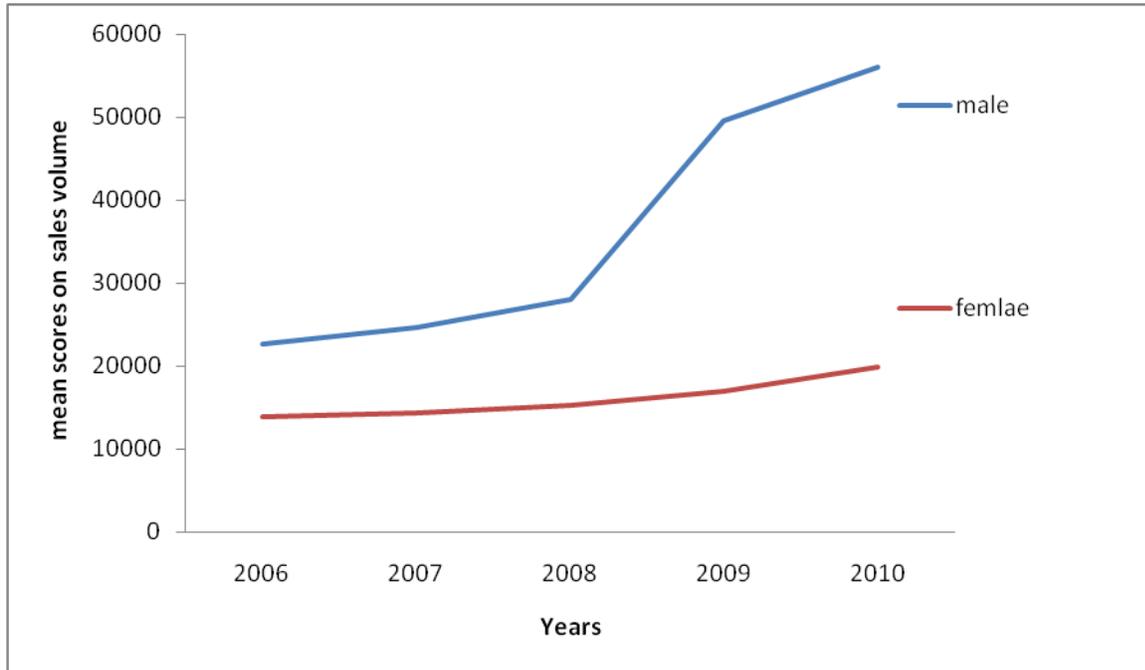
**Figure 1: Mean Scores on Market Share**



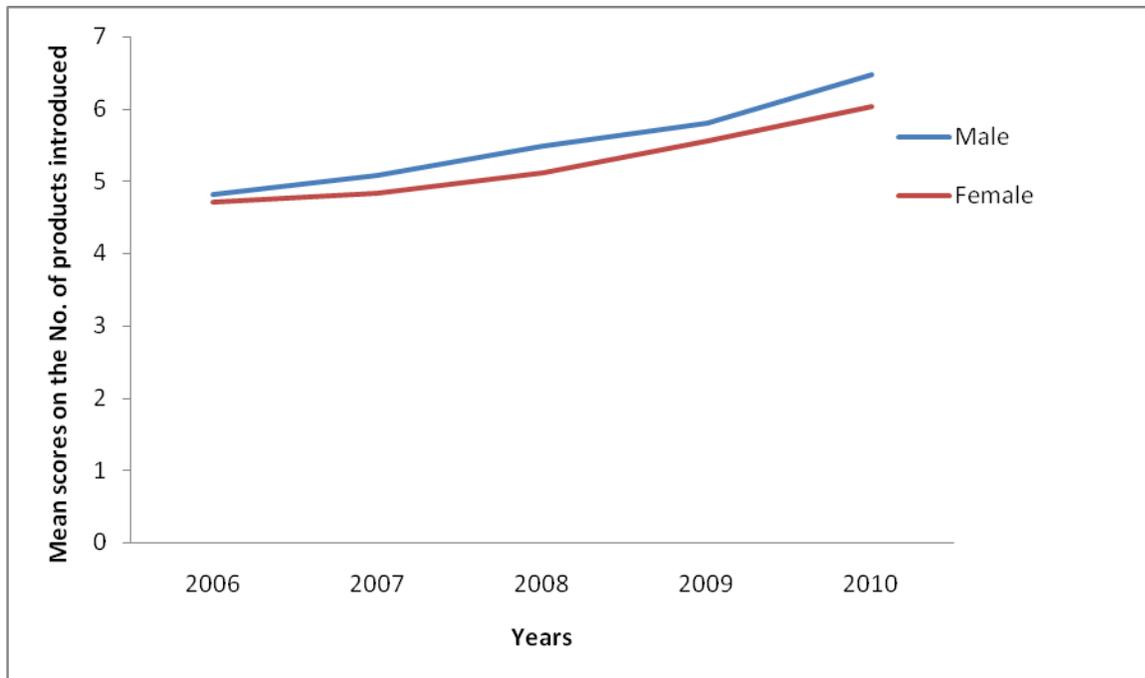
**Figure 2: Rate of Market Growth per Gender**



**Figure 3: Mean Scores on increase of no. of Employees**



**Figure 4: Mean Scores on sales volumes**



**Figure 5: Mean Scores on the No. of Products Introduced**