

IMPACT OF GENDER ON FINANCIAL PERFORMANCE OF SMEs AT BURAO DISTRICT

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JULY 2021

ABSTRACT

The impact of sex on financial performance of small-medium enterprise had been discussed extensively by scholars; somehow with controversial results. The purpose of study is to examine effect of gender; characteristics of gender and characteristics of firm as explanatory variables on financial achievement of SMEs in the Burao district. With cross sectional survey; sample of 278 participants had been selected equally based on gender from population of 1000 SMEs under judgmental sampling method. Specific variables studied were; growth of sales; profits-earned; savings of income; microcredit financing opportunities; risk taking; and gender-based comparisons. Multivariate regression analyses (MANOVA) predicted that gender has significant positive direct effect on financial performance of the enterprise; $P (0.000)$. Apart from gender; the characteristics of firm and characteristics of gender such years of experiences on business; age of business owner; size of firm; and education were other explanatory demographic variables its effects on the outcome variables has been measured. Found three of them contributed insignificant except education was significant; $P (0.0861)$; $P (0.460)$; $P (0.141)$; $P (0.001)$ respectively. Gender has moderated interaction effects between independent and dependent variables. Descriptive average Mean of male and female groups scored 3.64 and 3.56 respectively for comparisons. Female groups showed less in terms of years of experience in

business and their level of education than men. Finally; implementation of additional scientific studies about gender's achievements in business was recommendation.

Introduction

Approximately 47 percent of global enterprises are possessed and led by women while number of women in business continued to grow up ahead. Some of the arguments believed woman has achieved less in small medium enterprise business compared to their counterparts. (Bird, 2014; Swinney, et.al. 2006; Terrell, Shwetlena Sabarwal & Katherine, 2008; Robb, Gender differences in business performance, 2009) Regardless some differences on the issue. There are researchers who believed that outcomes of SMEs was mixed and has been determined by other factors not gender alone(Sabarwal & Terrell, 2021); as this idea has been supported by (Collins-Dodd et al., 2004). Due to the controversial; therefore the topic of the gender and firm's performance became widely interested among social science scholars in business research. Interestingly; majority of researchers recommended further investigations on gender and performance relationship since no solid consensus was reached yet. Studies pointed out countries who promoted gender equality has obtained higher in productivity than those not. USA census (2002) around 6.5 billion of women owned businesses have employed 7.1 employees with sales of 940 billion US dollar(Coleman & Robb, 2009). Undoubted, situation was different in where countries were least- developed included Somaliland. In Somaliland (northern region of former Somalia); where women are backbone of the family, primarily taking care after household and children. While on the other hand; the number of businesses under the ownership of women has increased noticeably throughout regions of Somaliland and Somalia with significant contribution in to the

local economy (Yassin et al., 2014). Somali context quoted from Ali (2014) “The hidden entrepreneurial potentials of women have gradually been changing with the growing sensitivity to the role and economic status in the society” (ALI, 2014). However, the idea women are with less- performance naturally than men were widespread perception in the Somali society. Women are rarely employed, unskilled, illiterate, and with lower accessibility to financing sector independently. The purpose of study was to examine impact of gender with characteristics of gender and characteristics of firm on financial performance of small-medium enterprises whereby gender moderated between predictor and criterion variables. It meant that study examined direct and indirect effects of selected demographic characteristics for both gender and firm on financial achievements of SMEs through gender moderated between demographic characteristics and financial outcomes. We understood from previous studies referenced that large number of studies in literature have used few number of independent variable (2 or 3) as some of them claimed utilization of many predictors was difficult to examine. Our study employed five independent demographic characteristics in order to make further investigation about effects; also was the gap considered.

The study have linked theoretically to different theories such as Social Identity Theory of leadership- the way person thinks will depends on to that particular group s/he belong to, this means the person can act differently in varying social context groups (Hogg, 2001).

Categorization-elaboration model (CEM and self-categorization theory (Trepte & Loy, 2017).

Liberal feminist and social feminist theory have argued businesses run by women are frequently underperformed against men led business since women were over discriminated in various factors(Hsu et al., 2013; Hyeock & Matthew, 2015; Watson, 2013). Theory of human relations also known theory of motivation; Theory of contingency, entrepreneurial theory and theory of

personality (Belás et al., 2015; Carter et al., 2006; Kim & Lee, 2020) are other theories could be related to the differences of performance of gender in SMEs.

Research question

1. What is the impact of relationship between gender and the financial performance of SMEs in Burao context?

Five sub- research questions

2. Does a woman owned small- medium enterprise perform lesser number of sales, profits, and income savings compare to same sized enterprise owned by men?
3. Do small-medium women-owned firms' lower access to microcredit to finance their enterprise compared to men-owned firms in Burao? This research question serves to the second objective of the research which is accessibility of finance by small- medium enterprises by gender is the objective the above research question will serve for
4. Are women less risk taking than men when it comes to invest (seize) potential business opportunity in Burao?
5. Do combination of characteristics of owner and characteristics of firm influence relationship between gender and financial performance of business?

Methodology

Approach of study was quantitative data. The study was explanatory used cross sectional survey thus its design was (causal research survey design). Self-administered structured questionnaire was printed out to collect data from participants with person to person interview between 10-15 minutes for interviewee.

Measurement of study variables

Independent variable (IV); the gender; characteristics of gender and firm were explanatory variables intended to predict on company's financial outcome. The five items measured by the research were: gender; education level; age of owner business owner; number of years in current business; and size of the enterprise (number of employee). Gender was direct effect and at same time moderated between other four characteristic and outcome variables.

Dependent variable: Financial performance of firm was dependent variable. Five financial dimensions were identified and were; Sales growth, Profit earned, income savings, owner's perception on access capital funds(microcredit) and taking financial risks(taking risky decisions). On base of the five dimensions; hence total of 25 financial indicators have been measured in relation to financial performance. Gender was moderator also. Study was attitudinal; so psychometric five-point Likert scale is the mode of responses that determined values of answers from participants.

Results

The rate of back response was 267 participants (0.96 percent) while 11 participants (0.04 percent) have not shown. Reliability test; Cronbach's alpha indicated (0.646), this was an

adequate according to Heirs (2018) who classified Cronbach’s alpha test of reliability” into ranges (Heris, 2018) as opposite of this was Taber(2017) who argued that high value of Alpha offers limited evidence of the reliability of a research instrument always (Taber, 2017).

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.646	.639	25

Content validity was non statistical technique of carefully prepared list of items question from researcher; was reviewed by supervisor to improve validity of questionnaire. With permission of supervisor we invited panel of three persons to score items. The panel have changed one item completely while rephrased wording of two others. Scale (1-2 = not appropriate) and (3-4 = appropriate). Overall average of scoring of item questions (0.86,) termed “good.

About 49.8 percent (133 participants) interviewed were women and 50.2 percent (134 participants) were men. For 62.2 percent (182 participants) married; 16.10 percent (43 participants) divorced; 9.7 percent (26 persons) single and 0.06 percent (16 persons)

Women concentrate on lower levels of educations such as intermediate school, informal adult education etc., men was more educated; for instance for 0.04 percent (11 men) neither read nor write) women’s illiteracy was 0.08 percent (22 women); a twice bigger than men. Due to the number of years of experience in current enterprises; men was getting more experienced than women in business. The more the number of years in business experiencing lesser the number of women was indicated and vice versa in men. Almost 84.6 percent (226 enterprise owners) hired

2-4 employees; this is a less than five employees. Type of small businesses have been dominated by Women included grocery, meat selling, beauty salon, selling chat, selling milk, and selling vegetables while clothes & shoe selling, eating-restruent, teashops/soft drinks, mini supermarket, cosmetics with electronics and hair cutter, building material and print stationery are dominated by men owned firms. SMEs dominated by women includes grocery, meat selling, beauty salon, selling chat, selling milk, and selling vegetables while clothes & shoe selling, eating restruent, teashops/soft drinks, mini supermarket, cosmetic and electronics and hair cutter, building material and stationery are dominated by men owned firms.

Univariate correlation throughout 25 items of dependent variable sorted out into six dimensions and the result showed sales growth strongly positive correlated to profit, credit financing; risk taking and to gender-based comparison (0 .239; 0.136; 0.152; 0.471) respectively; all significant except correlation with income-savings. Profit correlated significantly with all other five. But income saving was negative significant relationship with risk taking; while significant association with other four constructs except sales was insignificant correlated. In general majority of 25 items maintained positive associations among them while few were associating negatively. For assess normality of data; central tendencies of sales growth, Profit earned, income savings, access capital funds(microcredit) and taking financial risks; were outcome variables transformed computing average method in descriptive statistics of SPSS for adjusting slight skewness in data (Bishara & Hittner, 2012).

For instance; debt-financing which can be a concrete example of transformed outcome variables has been indicated below on Figure 4:9 (chapter 4 data analyse on figure 9) for visualising transformed normality.

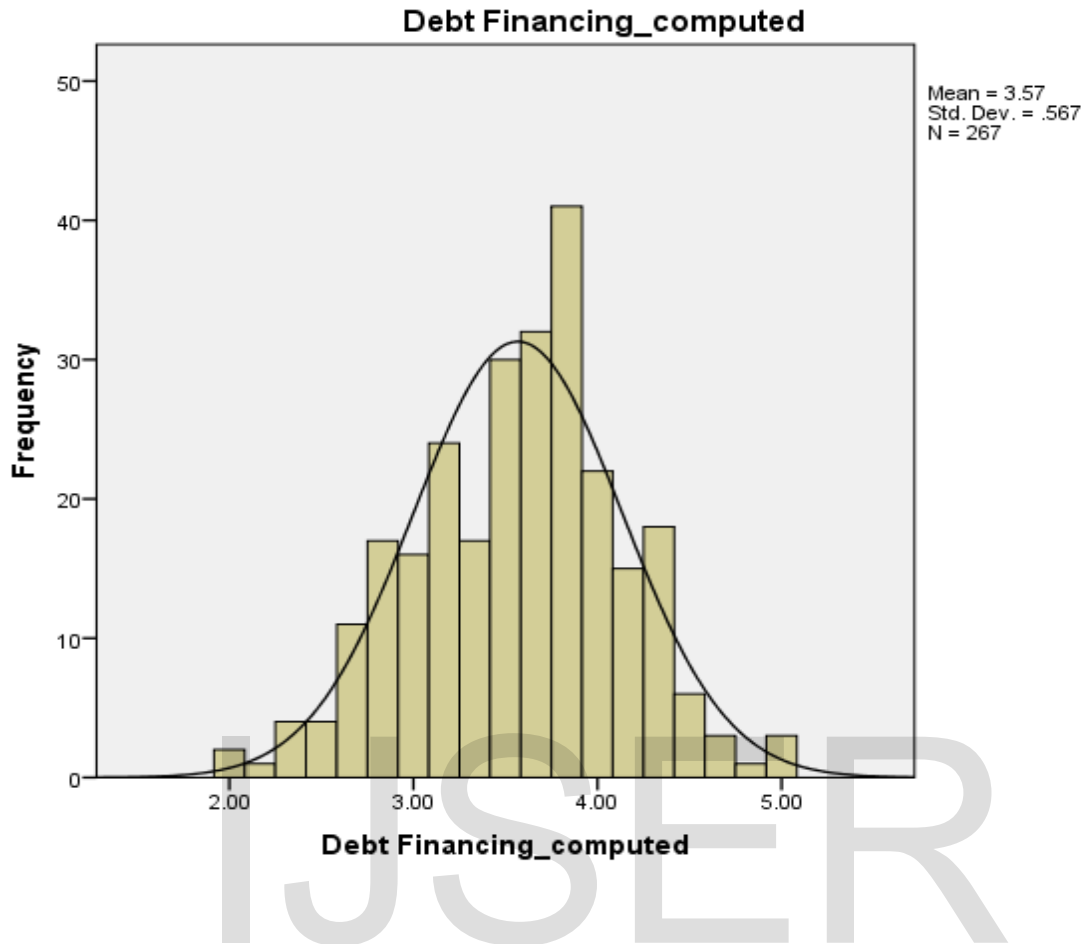


Figure4; 1: Debt financing- computed

To make further comparison between two sexes of gender; the cross tabulation was calculated and the Arithmetic Mean of scores between men and women pointed to 3.640 and 3.637 respectively. The women quite slightly lowered from men though this was statistically insignificant $P(0.349)$. In other words; looked at over all computed six outcome variables; we can say; Debt- financing; was the only outcome variable where woman was slightly upper than men with an average of 4.240 and 4.296 respectively. Chi-Square test of relationship between debt- financing and gender was significant $P(0.001)$.

Multivariate analysis

Multivariate analysis was implemented (MANOVA). The researcher measured two types of effects; Direct Effect (DE) known main effect and Indirect-Effects (IE) known interaction effects-two levels; three levels of each demographic variable. Results indicated type of sex (gender) has affected financial performance of SMEs. Willks' Lambda (.910); $F(6; 260) = 4.279$; Partial eta square (η^2) = 0.090; $P(0.000)$. Lambda is greater than 0.05 therefore distribution of datasets was normal. F test is significant (4.279) showing different variances existed between measured variables; $P(.000)$. Partial eta square (η^2) = 0.090. Expressed portion of variances and effect explained by gender (IV) on dependent variables associated with Education; is the only demographic variable except gender that predicted its main effect on outcome variable but no power of moderation. Therefore, in this context education was treated as covariate.

.Willks' Lambda (.830); was greater than 0.05; data neither skewed heavily to left nor to right. $F(24; 897.776) = 2.052$. F test indicated variances are not equal between measured variables; and was significant $P(0.002)$. Partial eta square (η^2) = 0.046; Age of the owner; Number of years of experiences in enterprise; and Number of employees in the enterprise; were in normality; with non equal variances; called F- test. Example; Age of owner ($18; 730.219$) = 0.998; Years in business $F(24; 897.776) = 0.694$; Number of employee(size of firm) $F(18; 730.219) = 1.365$ as well as their Partial Eta (0.023; 0.016; 0.031) but they did not produce any significant main-effect of differences between performances of male and female. While level of significance was $P(0.460)$; $P(0.0861)$; $P(0.141)$ respectively.

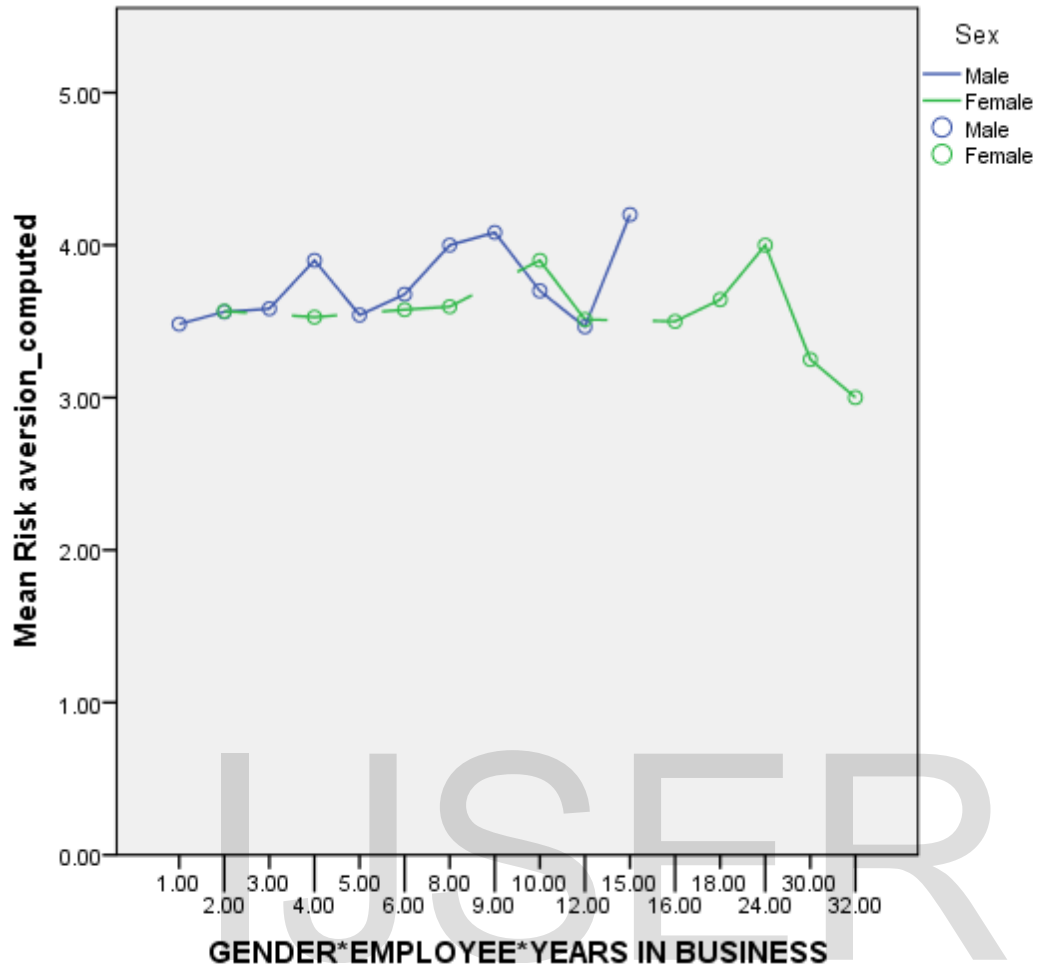
For examined indirect-effect; the combination of effects of the four (age*education* years in business* number of employees) was not significantly affected financial outcome between male and female $P(0.558)$; though this does not mean there was no interaction effects at all.

Gender has transformed position of above four variables from insignificant to Significant level. The interaction- effects became stronger among independent variables when gender started to moderate IVs and DVs; it is meant combination of total effects contributed in outcome variable has increased.

Dependent variable is shown on vertical (Y coordinate) and three level interactions at horizontal (X coordinate). Interception of two lines usually implies interactions are generated among gender on risk taking, opposite, any parallel lines mean no interactions between target variables at all.

Please see (Figure 4:22)-means from chapter 4 in data analysis; figure 22; of my thesis indicated the interaction effect of gender*employee*years in business.

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Findings show men have performed little bit better in accepting financial risk contrary to women on their individual average Mean compared.

Three level interaction effects. Employee*Years in business*Gender); (Age*Education*Gender); (Age*Employee*Gender); (Education*Employee*Gender); all of them are seen statistical important only after they are moderated by gender. With significance level of: P (0.033); P (0.013); P (0.01); P (0.001) in that order.

Two level interaction effects. Two level interactions measured; all showed insignificant include (gender * Employee); not significant p (0.608); size of effect (η^2) = 0.041. (Employee * Years in business); not significant P (.598); (η^2) = 0.059. (Age * Yearsinbusiness); P (0.701); (η^2) = 0.042. (Gender * Age); not significant P (.212) (η^2) = 0.068. (Gender * Yearsinbusiness); not significant P (0.931); (η^2) = .028. (Education*Age); non-significant P (.064); (η^2) = 0.075. (Education *employee); non-significant P (0.826); (η^2) = 0.058. Education * Yearsinbusiness); with non-significant P (0.931) (η^2) = 0.028. F test reported non equal variances throughout these two level interactions tested. Concluded that all together demonstrated no significant differences of impact on financial achievements between female and male groups at small businesses.

Principal Component analysis (PCA) was checked by Kaiser-Meyer-Olkin Measure of Sampling Adequacy. (KMO) test clarified sample of study was fairly representative as KMO (0.570); greater than 0.5 and significant P (0.000)

Eigenvalues analysis was important especially during factor analysis to see how components are loaded by items; and which component (factor) has explained largest portion of contribution of variances to the specific factor. Total variances of 36 percent were contributed by component 1 while component 2 explains variance of 20.97 percent thus their combination demonstrate accumulative percentage of contribution of variance (56.97 percent to the outcomes. Other four components had smaller percentage of variances and cannot express themselves; their Eigenvalues was less than 1.

According to the results of hypothesis have been tested; the Null hypothesis are rejected since financial performance of SMEs owned by male was higher than female's own ones.

Rotated Component Matrix

	Component	
	1	2
Sales _computed	.612	
Profit before savings computed	.734	
Income saving		.723
Debt Financing_computed		.656
Risk aversion_computed	.734	
Comparison of gender computed	.532	.657

Rotated component matrix; data was reduced to component 1 and component 2; each observed variable was explained by specific factor. Though its interpretations can be difficult and sometimes; however researcher’s interpretation was that:-

Financial performance of enterprise (Component 1). The variables such as Sales; Profit; Risks taking pattern and comparison of gender; have loaded to component 1. If we look at correlation of items, these four items are strongly correlated to financial performance of enterprise.

Investment (component 2).According to the items loading to this latent factor; for example income saving of firm and debt financing; both can be an important tools being used for investment of firm. The aim of getting credit financing from external financial local institutions is to invest business. Firm can reinvest saving income internally or can obtain it from external source. The above interpretations are just personal judgment by the author of the study.

Interpretation of hypothesis; seven null hypotheses were tested shown at below:-

1. Null hypothesis

(H₀)₁: Small medium women-owned firms do not have inferior financial performance than male-owned firms where enterprises are same sized in Burao town.

We rejected the null hypothesis. Women have achieved lower financial performance in small medium business than men

2. Null hypothesis

(H₀)₂: Gender alone as independent variable does not have impact on financial performance of enterprise.

We did reject the null hypothesis. It has been found gender have impact on financial performance of enterprise alone without other independent variables.

3. Null hypothesis

(H₀)₃ Education, age, and years of experience and size of firm do not moderate interaction effects between gender(IV) and financial performance of firm (DV).

Not rejected the null hypothesis. Education; age of business owner; Years of experience, Size of firm did not moderate effects of independent (gender) to dependent variables (sales increase, profit, net savings, access credit financing and risk taking)

4. Null hypothesis

(H₀)₄: women-owned SMEs do not less access to microcredit to start up their business compare their counterparts.

We do not reject the null hypotheses. Finding show women did not less access to micro credit providing institutions; to this study women seemed had better access to microcredit even than men.

5. Null hypothesis

(H₀)₅: Women are not less financial risk takers in business with comparison to men.

We reject the null hypothesis. According to our findings women are more in risk aversion than men.

6. Null hypothesis

(H₀)₆. When it comes to level of education; men are not more educated than women concerned SMEs surveyed.

We reject the null hypothesis. Considered level of education; men were more educated than women at SMEs surveyed.

7. Null hypothesis

(H₀)₇. Men are not more experienced than women concerning small- medium enterprises surveyed

We reject the null hypothesis. Men have more years of experience compared to women in SMEs surveyed.

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