MICRO-FINANCE FACTORS, TRAINING, AND MSES PERFORMANCE IN NIGERIA: DATA SCREENING AND PRELIMINARY ANALYSIS

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ABSTRACT

The aim of this paper is to investigate the collected data concerning on the influence of micro- finance factors, training, and performance of women MSEs in Nigerian. Samples of four hundred and thirty were selected from the total population of 7155 MSEs operating in Gombe state North East Nigeria. Hence, this study employed stratified sampling technique to divide the State in to three Senatorial District strata. In addition, data screening and cleaning were performed with the intention to satisfy the assumptions of multivariate analysis. Thus, the study conducted missing data analysis, outliers, normality and multicollinearity assessments. Likewise, the entire analysis was analyzed using Statistical Package for Social Science (SPSS) v18. Conclusively, the data found to fulfill the requirements for multivariate analysis.

Keywords: women MSEs Performance, Nigeria, Training, Data Screening, micro-finance factors

1. INTRODUCTION

Screening, editing and preparation of preliminary data are essential steps before any further multivariate analysis. It also important to conduct data screening to identify any potential violation of the basic assumptions related to the application of multivariate techniques (Hair Jr, Black, Babin, & Anderson, 2010). In addition, preliminary data examination enables the researcher to have a proper understanding of the data collected. However, this important step of data cleaning and screening is sometimes skipped by researchers (Hair Jr et al., 2010). Avoiding this stage of would undoubtedly, affect the quality of the result provided by the research. Therefore, there is a need to evaluate the data through series of statistical techniques to ensure it is free from this problem. In this case, in this paper independent sample t-tests, Mahalanobis distance, correlation and regression analysis were employed to assess response bias, common method bias, missing data, outliers, normality and multicollinearity. The remainder of the paper is organized as follows, introduction, literature about micro-finance factors, training and performance of women entrepreneurs business. Then, highlight of the method used in this study, result and discussion of the findings. Finally, conclusion was reported based on the research findings.

2. LITERATURE REVIEW

Micro-finance factors assist in providing financial services to women entrepreneurs and the rural poor who are not served by the conventional formal financial institutions (e.g. commercial banks). However, these factors extended the frontiers of financial services provision and transformed the rural economic development (Evbuomwam, Ikpi, Okoruwa,& Akinyesege, 2013; Ekpe,2011). Micro-finance factors are firm valuable resources that indicate the course in which an organization wants to be in the future. It indicates and how well these activities help organization to achieve these dreams. Micro-finance are organizational valuable resources that can lead organization to achieve better performance (Iganiga, 2008). In other words, micro-finance refer to how owner-managers were able to access micro-finance factors to achieve firm desire objectives (Ike, 2013). Others opine that micro-finance factors, as used here, refer to the services provided by micro-finance institutions to entrepreneurs to start or improve their businesses. These include credit services such as loan and saving, and non-credit services such as motivation, and network affiliation (Brockhaus, & Horwitz, 1986; Kumar 2005, Baun &Locke 2004; Carter & Shaw, 2006; Rian, 2015).

Similarly, Gadway and O'Donnell(1996) define micro-finance factors entrepreneurs have access to financial services by allowing a large segment of productive Nigerian population also to obtain low-income earners as groups. Cultivate savings habits for better firm performance. In line with argument, Peter (2001) states that micro-finance need to provide tailored lending services for the poor instead of rigid loan products services. Supporting this latter assertion of Peter (2001), Ekpe (2011) develops a model of women micro entrepreneurs and MFIs in developing countries that provides a tailored lending structure for microenterprise women. Similarly, Iganiga (2008), Okpara (2011),and Gary, Enrique, and Alicia, (2012) argue that MFIs need to be more client-focused, including offering a mix of financial products tailored to the varied needs and wants of vulnerable women entrepreneurs. As a result, it has a helpful influence on the owner-managers activities and resource utilization that may lead to sustainable competitive advantage. However, MFFs represent intangible resources of the firms (Barney, 1991). So, the interaction among different finance and non factors give firm competitive advantages which will lead to better performance (Aminu, 2015). Based on these argument previous studies have shown that motivation (MV), network affiliation (NA), credit accessibility (CA) and savings (SV) are essential organizational resources that can provide firms with competitive advantage and lead to better performance (Atieno,2009;Allen,2000; Shane,2003; Oke, 2013; Ahuja,2000; Alberton, Baldegger, Rico & Hucklin2013; Alakpa,2014). Literature on MV indicate that firms can achieve better performance when they are self confident, set goals and proactive (Baum & Locke, 2004; Baycan-Levent & Kundak, 2009; Benabou & Tirole, 2014). Likewise, constant interaction by the owner managers with other group members and social network through NA activities of individuals network provides emotional support, social persuasion, and vicarious experience to determine the performance of the firm (Atieno, 2009; Allen 2000). Similarly, ability to

access credit to improve their business operations through innovation in new market, marketing information, and reduction in risk and improves entrepreneurial activity and firm growth and better performance through CA (Mazanai & Fatoki, 2011). In the same way, studies on SV point out that firm can achieve competitive advantage through effective savings which improve firms holding of money for investment purposes (Vonderlack & Schreiner, 2001; Salia & Mbwambo, 2014). Finally, training as an important resources improve women entrepreneur's business activities in any economy (Conney, 2011; Thang & Buyens, 2008). Therefore, training through skill acquisition enhances firm performance (Ekpe, 2011; Ernst &Young, 2012; Kuzulwa, 2005; Zhang, Edgar, Geare & O'kane, 2016).

3. METHODOLOGY

Method of data analysis is a procedure and statistical tools by which researchers analyse data, and subsequently provide better understanding of the phenomenon. In this study, descriptive statistics was employed to analyse the data. The samples were selected from the owner managers operating in Nigeria. A total of 430 questionnaires were distributed using self-distribution technique. Therefore, after raw data were collected from the field, the entire usable questionnaires were coded and inputted into the Statistical Package for the Social Science (SPSS v18). Then the following method of data analysis was adopted to analyse the data. Firstly, test of non-response bias and common method bias was conducted. Secondly, the data undergo screening to find data entry errors, frequency test was run for each variable to identify and correct the possible missing value using the respective mean values. Finally, the study assesses and describes variable in terms of outliers, normality and multicollinearity (Saunders, Lewis, & Thornhill, 2009).

4. RESULT AND DISCUSSION

4.1 Response Rate

Because of the efforts made by the researcher and research assistants, 381 questionnaires were retrieved. Therefore, this makes the response rate of 88.60%, though, out of the 381 collected questionnaires only 363 were found to be useful for further analysis, because 18 were wrongly filled making a valid response rate of 84.42% (Yehuda, 1999). According to Sekaran and Bougie (2010), in survey studies a response rate of 30% is acceptable. Therefore, the study response rate is adequate for further analysis as indicated in Table 4.1 below.

Table 4.1 Response Rate of the Questionnaires

Response	North	South	Central	Freq/Rate
No. of distributed questionnaires	140	129	161	430
Returned questionnaire	125	115	141	381
Returned and usable questionnaires	119	106	138	363
Returned and excluded questionnaire	6	9	3	18
Questionnaire not returned	15	14	20	49

Response rate %	89.29	89.14	87.57	88.60
Usable response rate %	85.00	82.17	85.71	84.42

4.2 Response Bias Test

The problem of non-response bias occurs in surveys when the response of the respondents who response differ in significant ways from those who did not respond. In other words, non-response error refers to the failure to get information from the respondents. For instance, negation to take part in the survey that makes it difficult to contact the respondents (Yehuda, 1999). The real problem of non-response errors are derived from responses to questions, and the information given by respondents may be different information to those who refused to respond (Armstrong & Overton, 1977). Hence, non-response bias can restrict the findings of the study to say explain how the sample responded and may affect the generalization of the result to the population. So, in a survey research like the current study assessing this type of error before moving to the main analysis is paramount.

Firstly, in order to address the problem of non-response bias in this study, the sample was increased to 17% as suggested by Salkind (1997); follow-up through phone calls, SMS and personal visits and some gifts and consultation were offered as inspiration (Churchill Jr. & Iacobucci, 2004). However, to assess the prospect of non response bias, the difference between respondents who responded first and those who responded late were compared as suggested by Armstrong and Overton (1977).

Therefore, test of response bias was conducted by dividing the respondents into two groups, based on the early and late respondents they argued that late respondents share similar characteristics with non-respondents The non-response bias approach in the present study has divided the respondents in to two group: those who responded within 57days (i.e. early respondents) and those who responded after 57days (i.e. late respondents). However, the responses were recorded instantly, as the questionnaires were collected from the respondent (Vink & Boomsma, 2008). Most of the respondents in the sample in the study, widely accounted for that is 235 (64%) responded to the questionnaire within 57 days, while the remaining 128, representing (36%) responded after 57 days (Table 4.2). Specifically, an independent samples t-test was conducted to detect any possible non-response bias on the main study variables including motivation, network affiliation, credit accessibility and savings. Table 4.2 presents the results of independent-samples t-test obtained. As indicated in Table 4.2, the results of independent-samples t-test revealed that the equality variance significance values for each of the six main study variables were greater than the 0.05 significance level of Levene's test for equality of variances as suggested by Pallant (2010) and Field (2009). For this reason, this suggests that the assumption of equal variances between early and late respondents has been taken care up. As such, it can be concluded that non-response bias was not a major concern in the present study. Furthermore, following Lindner and Wingenbach's (2002) recommendation, since this study achieved 88.60% response rate,

additionally it can be observed that the issue of non-response bias does not appear to be an obstacle for this research.

Table 4.2 Results of Independent-Samples T-test for Non-Response Bias

	Group Statistics				Levene's Test for Equality of Variances	
Variables	**Response**	**N**	**Mean**	**Std. Deviation**	**F**	**Sig.**
MV	Early	235	3.5314	56525	.003	.959
	Late	128	5.3281	.69604		
NA	Early	235	3.6648	.56385	.125	.724
	Late	128	5.4523	.64279		
CR	Early	235	3.7164	.61667	.955	.329
	Late	128	5.3255	70414		
SV	Early	235	4.4745	1.02475	2.068	.151
	Late	128	4.2168	1.04734		
TR	Early	235	5.2868	.82696	2.919	.088
	Late	128	5.6905	.60401		
WBP	Early	235	4.6887	.51697	1.746	.187
	Late	128	5.7897	.43909		

Note: MV=Motivation, NA= Network affiliation, CA= Credit accessibility, SV= Savings, WBP=Women entrepreneurs business performance

4.3 Common Method Bias Test

Common method bias is also refers to as monomethod bias the variance attributable exclusively to the measurement procedure as opposed to the actual variables the measures represent (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003). Common method variance is a major concern to scholars and researchers using self-report surveys (Lindell & Whitney, 2001; Podsakoff *et al.*, 2003; Spector, 2006). For example, Conway and Lance (2010) stated that "common method bias inflates relationships between variables measured by self-reports. Hence, considering the likely problem caused by common method bias in behavioural studies, this study conducted a test to make sure that there is no variance in observed scores and correlations are not inflated because of the methods effect. Common method bias refers to the variance attributable exclusively to the measurement procedure as opposed to the actual variables the measures represent (Podsakoff, *et al.*, 2003). There are several arguments on the importance of common method bias on data (Bagozzi, 2011). It is therefore an important consideration in this study. There are several procedures and statistical techniques that are used to treat common method variance. These include wording questions in reverse, clarity of questions or items, confidentiality of the respondents and statistical Harman's one-factor test (Podsakoff *et al.*, 2003). In view of the fact that the data on the endogenous and exogenous variables were collected at the same time using the same instrument, common methods bias could distort the data collected. Following Podsakoff and Organ (1986), all items in this

study were subjected to a principal components factor analysis. The results of the analysis yielded six factors, explaining a cumulative of 60.33% of the variance; with the single factor explaining 39.53% of the total variance, hence indicating the possibility of common method bias in this study. This is in line with Podsakoff *et al.,* (2003), and Lowry and Gaskin (2014), who argue that common method bias is presented when a single factor explains more than 50% of the total variance.

4.4 Initial Data Examination, Screening and Preparation

Screening, editing and preparation of initial data are essential steps before any further multivariate analysis. It also important to conduct data screening to identify any potential violation of the basic assumptions related to the application of multivariate techniques (Hair Jr *et al.,* 2010). Furthermore, initial data examination enables the researcher to gain a deeper understanding of the data collected. Therefore, missing data, outliers, normality and multicollinearity are checked and treated accordingly.

4.4 Initial Data Examination, Screening and Preparation

Data screening, editing and preparation are important steps before proceeding for further multivariate analysis. It is also imperative to carry out data screening so as to identify and check the accuracy of the data input with treatment of the missing value. As one of the basic assumption of multivariate analysis data need to be properly screen and treated so that the data will not be abstruse. Therefore clear and screen data enhance the outcomes of the result (Tabachnik & Fidell, 2007). However refusal to carry such data screening may lead to breach of the basic assumptions related to the data analysis (Hair Jr.*et al.*, 2010). Additionally, preliminary data and assessment appraisal enables the researcher to be acquainted with the data collected. Therefore, missing data, outliers, normality and multicollinearity are checked and treated accordingly.

4.4.1 Missing Data Detection

Missing data is detected by clearly identifying the number of selected cases missing using computer IBM SPSS filter command to locate the missing value.

4.4.2 Missing Data Treatment

In the original SPSS dataset, out of the 7,155 data points, 8 were randomly missed, which accounted for .11%. Specifically, MV4 had 1 missing values NA1, NA5 had 1 missing value each while NA6 had 2missing values. Likewise, WBP1 had 2 missing values and WBP12 had 1 missing value; and no missing value was found in SV. Although there is no acceptable percentage of missing values in a data set for making a valid statistical inference, researchers have generally agreed that missing rate of 5% or less is non-significant (Tabachnick & Fidell, 2007).

Furthermore, researchers have suggested that mean substitution is the easiest way of replacing missing values if the total percentage of missing data is 5% or less (Little & Rubin, 1987; Raymond, 1986; Tabachnick & Fidell, 2007). Hence, in this study, randomly missing values were replaced using mean substitution (Tabachnick & Fidell, 2007). Table 4.3 shows the total and percentage of randomly missing values in the present study as indicated below.

Table 4.3 Total and Percentage of Missing Values

Latent Variables	Number of Missing Values
MOV4	1
NET1	1
NET5	1
NET6	2
WBP1	2
WBP12	1
Total	8 out of 19,236 data points
Percentage	0.04%

Note: Percentage of missing values is obtained by dividing the total number of the random missing value for the entire data set by total number of data points multiplied by 100

4.4.2 Univariate and Multivariate Outliers Detection

Breunig, Kriegel, Raymond, and Sander (2000) define Outliers as an observation that deviates so much from other observation as to arouse suspicion that was created by a complex mechanism. The occurrence of outliers in the data set can seriously twist the estimates of regression coefficients and lead to unreliable results (Verardi & Croux, 2008). In order to identify any observation which appears to be outside the SPSS value labels as a result of wrong data entry, frequency tables were tabulated for all variables using minimum and maximum statistics in the first place to detect the wrong data. Based on the initial statistical analysis of frequency, there was no any value found to be outside the expected range.

An outlier is a point that is far from observing other observations. Outliers may arise due to measurement variation that can possibly indicate an experimental error (Churchill Jr. & Iacobucci, 2004). Outliers can occur in any random distribution, but they are often indicative either of measurement error or that the population suffers hard-tail distribution. Investigating outliers is an important step because skipping initial examination of outliers can distort statistical tests if it happens to be a problematic outlier (Hair Jr. *et al.*, 2010). In particular, it distorts statistics and may lead to results that do not generalize to certain samples except one with the same type of outliers (Tabachnick & Fidell, 2013).

In line with the suggestion of Tabachnick and Fidell (2013), this present study, employed Mahalanobis D^2 measure was to identify and deal with multivariate outliers. Moreover, treating multivariate outliers will take care of univariate outliers. Though, treating univariate outliers will not necessarily dealt with multivariate outliers (Hair Jr. *et al.*, 2010). Therefore comparing Mahalanobis D2 to chi-square distribution with the same degree of freedom, the probability value was computed using the IBM SPSS v18, computer command. The probabilities are compared against the probability value of 0.001. Responses with unusual combination of items with the probabilities of Mahalanobis D2 of less than 0.001 are considered a multivariate outlier (Tabachnick & Fidell, 2013). Hence, the following

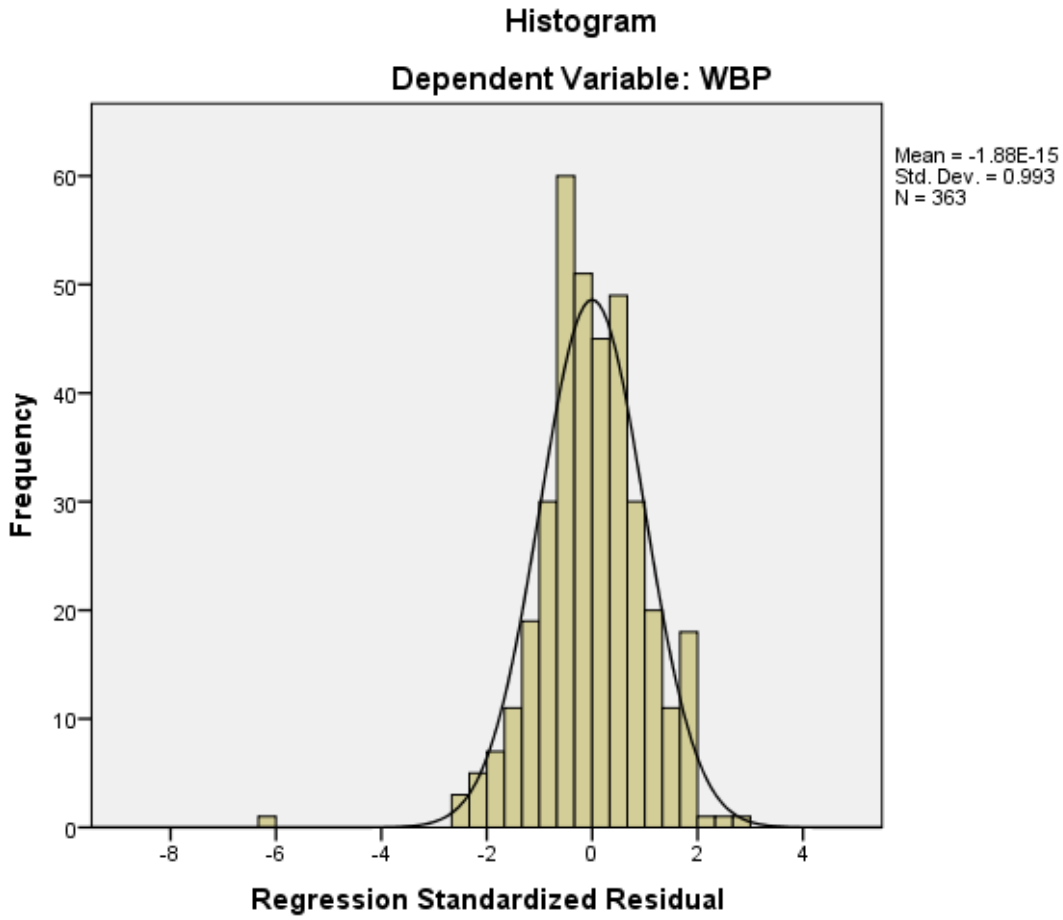
questionnaires with the ID number 360, 295, 195, 117, 36, 70, 202, 96, 2, 53, 358, 6, 102, 83, 201, 181, 56, 5 were removed from further analysis.

4.4.3 Normality Test

Subsequent to the proper checking and examining of the outliers, the normal distribution of the data was assessed. The normal distribution is a key assumption for statistical analysis and structural equation model (Hair Jr. *et al.*, 2010). The PLS-SEM is a lenient model that makes no assumptions about the normality of the data distributions (Hair Jr. Hult, Ringle, & Sarstedt, 2013; Henseler, Ringle & Sinkovics, 2009; Temme, Kreis, & Hildebrandt, 2010). Even though PLS-SEM is a non-parametric statistical method therefore does not require data to be normally distributed, it is important to check if the data is not too far from being normal (Hair Jr. *et al.*, 2013). Because extremely non-normal data can be a problem in assessing the parameters and the standard errors may be inflated from bootstrapping.

According to Hair Jr *et al*, (2010), normality refers to the shape of the distribution of data for an individual metric variable and its correspondence to the normal distribution of the benchmark for statistical methods. To check the normality, i.e., assessing possible deviation from normality and the shape of the distributions, this study applied statistical method of Skewness and Kurtosis (Curran, West, & Finch, 1996; Hair Jr. *et al.*, 2010; Kline, 2011; Tabachnick & Fidell, 2013). However, Tabachnick and Fidell (2013) state that deviation from normality of Skewness and Kurtosis often does not make a substantive difference in the analysis when the samples is more than 200.

According to Curran *et al.* (1996) Skewness values should be less than 2 and Kurtosis values should be less than 7. Additionally, following similar argument Kline (2011) states that the absolute value of Skewness greater than 3 and Kurtosis value greater than 10 may indicate a problem; and values above 20 may indicate a more serious problem. Based on this recommendation, the absolute values of the Skewness and Kurtosis of all the items in this study are within the acceptable range. Against this background, the present study here employed a graphical method to check for the normality of data collected (Tabachnick & Fidell, 2007). As indicated by Field (2009) is very important to look at the shape of graphically distribution samples that is 200 or more rather than looking at the value of the skewness and kurtosis statistics. In addition the more the greater the sample sizes the less standard error which will in turn inflate the value of the skeweness and kurtosis statistics (Field 2009). Hence, this justified the reason for using a graphical method of normality test rather than the statistical methods. Based on the suggestion given by Field's (2009) in the present study, a histogram and normal probability plots were examined to ensure that normality assumptions were not infringe. The Table below depicts that data collected for the present study follow normal pattern since all the bars on the histogram were closed to a normal curve. Consequently, the study indicates that normality assumptions were not infringed in the present study.



4.4.4 Multicollinearity

Multicollinearity refers to the relationship between two or more exogenous variables, where the independent variables demonstrate little correlation with other independent variables Hair Jr et al. (2010). Multicollinearity problem occurs when the independent variables are highly correlated to each other (Hair Jr et al., 2010; Pallant, 2010; Tabachnick & Fidell, 2013).

Table 4.4
Correlations Matrix

Variable	CA	MV	NA	SV	TR	WBP
CA	1					
MV	.814**	1				
NA	.375**	.418**	1			
SV	.283**	.343**	.560**	1		
TR	.806**	.826**	.469**	.366**	1	
WBP	.817**	.800**	.428**	.374**	.815**	1

**. Correlation is significant at the 0.01 level (2-tailed).

Therefore, when two or more variables are highly related, it means they contain unnecessary information. Therefore, not all are needed in the same analysis because they increase the error terms. Furthermore, when multicollinearity between variables is high, the standard error of the regression coefficient increases, so the statistical significance of these coefficients becomes less reliable. However, the most reliable statistical test of multicollinearity is examination of tolerance and Variance Inflation Factor (VIF) with the thresholds of more than 0.1 and VIF of 10 (Hair Jr et al., 2010; Pallant, 2010). Therefore, in this study multicollinearity was tested first by examining correlation matrix and secondly by tolerance and VIF level for the independent variables.

The correlation matrix of the independent variables was examined to find out if there is any indication of high correlations among the variables. According to Hair Jr et al. (2010 and Pallant, 2010), multicollinearity exists when correlation between independent variables is 0.9 and higher. However, Pallant (2010), suggested correlation value above 0.7 as a threshold for multicollinearity among independent variables. The result showed that none of the exogenous variables is highly correlated with any other exogenous variable. Table 4.5 shows that the correlation values are not higher than the threshold of 0.7 and higher. It is, therefore, concluded that there is no problem of high correlation among the variables.

Table 4.5
Multicollinearity Test

		Collinearity Statistics	
Endogenous Variable	**Exogenous Variable**	**Tolerance**	**VIF**
CA	MV	.808	1.237
	NA	.629	1.591
	SV	.672	1.489
MV	NA	.635	1.574
	SV	.680	1.471
	CA	.852	1.174
NA	SV	.882	1.133
	CA	.337	2.969
	MV	.323	3.096
	CA	.335	2.982
SV	MV	.322	3.104
	NA	.822	1.217

MV=Motivation, NA= Network affiliation, CA= Credit accessibility, SV= Savings,

Secondly, multicollinearity was tested through examination of tolerance and VIF using regression results provided by the SPSS collinearity diagnostics result. As recommended, this is the most important and reliable test of multicollinearity (Hair Jr et al., 2010). From the table 4.4 it is clear that the tolerance ranges between 0.322 and 0.882 substantially greater than 0.1

and VIF ranges from 1.133 to 3.104, thus, is acceptable as being less than 10. In line with Hair Jr et al. (2010) and Pallant (2010), the result shows that multicollinearity does not exist in this study, since tolerance values above 0.10 and VIF values is below 10.

4.5 Sample Characteristics

Respondents were asked to indicate the number of aspects relating to their enterprises. Such as, education, marital status, business type, year of experience, firm size, nature of capital, ownership type etc. The following are the results of the features of the respondents.

Education: firstly, to confirm for the respondents level of education. Respondents were asked to indicate their highest educational level by selecting one of the three options provided in the questionnaire. The descriptive analysis revealed that majority of women entrepreneurs in the samples indicated that 229 (63.1%) of the sampled women owner managers had secondary education while 10.7% had tertiary education, and 26.2% had primary education. Marital status: Table 4.6 indicated that 81.0% majority of the women entrepreneurs were married while 3.9% were single. 8.5% were widowed and 6.6% were divorced. With respect to business experience, 71.9% of the sampled women entrepreneurs had 3-5 years experience in business generally; 14.6% of the women had less than 3 years business experience; and 11.6% of the women had 6-10 years experience, and 1.9% indicated 11 and above years of business experience.

Type of industry: Table 4.6 investigate the owner managers firm. Therefore owner managers firm is another aspect that was investigated as part of the questionnaire administered to owner managers. Based on the categorization provided in the questionnaire, namely: 1) agriculture; 2) knowledge base; 3) manufacturing; 4) retailing; 5) professional; 6) services which shows that 32.4% of the sampled women entrepreneurs were engaged in Manufacturing while 26.4% were engaged in Retailing; 22.0% were engaged in agriculture, 17.6% were in services, 0.8% were in knowledge-based industry respectively. Firm size: the analysis indicated that 96.7% of the sampled women entrepreneurs had businesses worth less than #5million equivalent to (USD25380) and kwacha (8,000,000) Zambian. While 2.8 % of the women had businesses worth #5m-50million and 0.6% of the women had businesses worth #50m-500million.

Nature of start up capital: as for the nature of capital start up 45.2% of the respondents have started their business mostly, with their personal savings; while 27.8% start business with bank loans as their start up capital; and 21.8% started with contribution from friends and relatives; and 5.0% indicated 2 of the above nature of capital start up; 0.3% indicated their benefit as another sources of start up capital. Capital before last loan: respondent where asked to indicate their capital before the last loans by selecting the amount of capital before there last loans 88.7% most of the sampled women entrepreneurs had business capital of #200,000 and above before their last loan while 3.0% of the women had capital of #100,000-190,000 and 1.9% had capital of #50,000-90,000. Capital after last loan: The analysis revealed that 84.6% of the respondents had business capital after their last loan of

#200,000 (USD 66,666) and above while 5.0% had business capital after last loan of #100,000-190,000.

Ownership: the analysis revealed that majority 88.7% of the women entrepreneur's women acquired their current businesses through joint as partners; while 7.2% obtain their businesses through succession; while 2.2% of the respondent have take over their business.

Table 4.6 Summary of Respondents Demography

Items	Frequency	Percentage
Education		
Primary education	69	26.2
Secondary education	229	63.1
Tertiary education	39	10.7
Marital status		
Married	294	81.0
Single	14	3.9
Windowed	31	8.5
Devoiced	24	6.6
Years of experiences		
Less than 3years	18	5.0
3-5 years	322	88.7
6-10years	16	4.4
11years and above	7	1.9
Type of the Industry		
Agriculture	83	22.9
Knowledge based	3	0.8
Manufacturing	117	32.4
Retailing	96	26.4
Services	64	17.6
Size of the firm		
Less than #5m	351	96.7
Between #5-50m	10	2.8
Between #50-500m	2	0.6
Nature of start up capital		
Personnel savings	164	45.2
Bank loans	101	27.8
Contribution from friends and relatives	79	21.8
Retirement benefit	1	0.3
2 or more of the above	18	5.0
How much is your capital before the loan?		
Less than #50,000	23	6.3
#50000-90,000	7	1.9
#100,000-190,000	11	3.0
#200,000 and above	322	88.7
How much is your capital after the last loan?		
Less than #50,000	22	6.1
#50,000-90,000	16	4.4
#100,000-190,000	18	5.0

#200,000 and above	307	84.6
Ownership		
Succession	26	7.2
Joint partnership	322	88.7
Take over	8	2.2

5. CONCLUSION

Inclusion, this paper evaluate the data through series of statistical techniques to ensure it fulfil the multivariate assumptions. Therefore, data screening and cleaning ware conducted to satisfy these assumptions. Thus, the study conducted missing data analysis, outliers, normality and multicollinearity assessments. The study reports that the data fulfill the multivariate analysis requirements.

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