# Correlations of the Marketing Return on Sales Investment (MROS) vrs the Investment in Marketing of the Micro, Small, Medium and Large (MSMLE's) Enterprises of Belize.

#### **Romaldo Isaac Lewis**

Abstract: Enterprises in Belize and around the world continue to face challenges in Marketing Investment, whose overall objectives is to increase the performance of the Marketing Return on Sales (MROS) as a part of its acquaintance of the goods and services they provide. The results of this study will contribute significantly to the establishment of the minimum, average and maximum percentage of investment that an enterprise within the Belizean economy should undertake base on the enterprise size weather it is Micro, Small, Medium and Large enterprise (MSMLE's). The objectives were to: 1) Determine if there is statistical significance in Marketing Investment (MI) as well as the Marketing Return on Sales (MROS) of the different enterprises(Micro, Small, Medium and Large). 2) Determine the nature as well as the level of correlation that exit between the Marketing Investment(%) and the Marketing Return on Sales (%). 3) Estimate the lineal equation for each enterprise group in Belize. 4) Make recommendation base on graphical and mathematical equation to increase the Marketing Return on Sales (MROS) in the enterprises in Belize. To evaluate the statistical significance, A Regression analysis was conduct on each pairs of data according to the enterprise size Micro (374), Small (761), Medium (348), and Large (14) for a total of 1500 enterprises through out Belize. Additionally to the statistical significance, this same analysis was use to determine interpret the nature as well as the level of correlation that exist between the Marketing Return on Sales and the Marketing Investment (%). In summary, the effects of the three enterprise groups; Micro, Small, Medium and Large Enterprises (MSMLE's) in Belize were highly statistically significant, with a positive nature and whose level of association were highly correlated according to the Dancy and Reding Table. Estimated linear equation was also estimated for the different enterprise groups.

Index Terms: Belize, Returns on Marketing Investments, Micro, Small, Medium and Large Enterprises, Regression Analysis.

# I. INTRODUCTION

This research is intended to analyze the correlations that exist Returns on Marketing Investment (ROMI) vrs the Investment in Marketing of the Micro, Small, Medium and Large (MSMLE's) enterprises of Belize. for the past years, enterprises has someone or the other contributed to the Gross Domestic Product (GDP) at an estimate 24.55% via revenue generation from taxes and licences. Despite that enterprise contribute to the economy of the country. Enterprises still

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struggled with other difficulties such as the ability to manage the day to day operations, which in some way or the other have direct economic impact of these units within the Belizean economy.

The problem that currently exists is that, in Belize and other nations of Central American and the Caribbean (CAC), enterprises don't budget or have limited financial resources for investment in marketing. Additional, many of these managers aren't aware and have never measure the impact that promotion of their goods or services bring to their enterprises weather it is Micro, Small and Medium Enterprises (MSME's).

The problem of budget absence or limited allocated financial resources minimize or eliminate the investment in marketing which has a direct impact on the Marketing Returns on Sales (MROS), of the goods or services provided by the enterprises. As emphasized by Kotler 2012 Marketing should been seen as an instrument or strategy to introduce and / or promote any goods or services within past, existing or future markets so that past, existing and future clients can have access to it. (Boguslauskas & Ruta, 2010, p119).

Information in the past indicated that the support for the MSMLE's sector has led to the creation of a policy for Belize in February 2013 which only considered variables such as Total Assets, Number of Employees, Annual Sales and Manufacturing Space. (Seepersaud, M. M, 2012, p13-15).

According to Boguslauskas & Ruta (2010, p119), the study just included Total Assets, Number of Employees, Annual Sales and Manufacturing Space; which isn't useful considering that enterprise have other constraints such financial limitation for marketing investment, which is directly related to the Marketing Return on Sales (MROS).

In Belize and the region, MSMLE's are of particular interest because they are considered to be amongst the most important growth factors that have a direct impact on the country's economy.

In addition to the above mentioned these enterprises also affect social stability, as well as labor force creation, as seen in the private sector in Belize, which is approximately 89% (SIB, 2017). Furthermore, to the marketing investment constraints. It is believed that there hasn't been a culture of investment for marketing as a strategic tool or instrument to increase the sales performance, and consequently the profiatability of the enterprises.

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#### **II. LITERATURE REVIEW**

#### 2.1. Enterprise

Economists describe business or Enterprises as a division of the private sector where productive economic activities take place. Furthermore, the words, enterprise' and business' are associated with organizations that sell goods and services in exchange for what clients assume, judge or assimilate to be an accurate approximation, to the vendor (Hallberg, 2000, p.1-1).

As a result, it is believed that an Enterprise is considered to be any economic unit that is tailored to provide goods or service to clients, considering that as an entity it must be financially sustainable by maximizing its profits, and minimizing cost, without affecting the quality of goods or services provided. Nevertheless, economists have argued that the fundamental reason why it seems profitable to establish an Enterprise or business is that there are cost and price mechanisms which are commonly used in the market where good and services are traded between wholesalers, retailers and customers.(Hallberg 2000, p.1-1).

# 2.1.1 Definition of Micro, Small and Medium Enterprises (MSME's)

Micro, Small and Medium Enterprises (MSME's) are heterogeneous and can included a broad range of Enterprises in the formal and informal economies that participate in the various sectors. From a global perspective, entrepreneurs are frequently family-owned business or self-employed individuals who are operating in a semi-formal or informal manner with little probability of either growing into larger scale Enterprises or having access to finances or becoming competitive at both international and regional levels.

According to recent studies done in Belize, Micro Small, Medium and Large Enterprises (MSMLE's) can be describe as follows:

*LARGE ENTERPRISE*: Any enterprise that generates Earnings Before Tax (EBT) ( $X_1$ ) that fluctuates between \$19,465,139 to \$157,603,154, with Business Tax (BT) ( $X_2$ ) contribution between \$5,250,001 and \$4,060,000, as well as General Sales Tax(GST)( $X_3$ ) between \$3,750,001 and \$ 29,000,000 Bze.These variables calculated a Net Operating Profit After Tax (NOPAT)(X4) between \$16,589,859 and \$134,859,243, allowing an Expansion Investment (EI)(X5) between \$2,006,776 and \$26,971,849, as well as Free Cash Flow (FCF)(X6) between \$13,743,674 and \$107,887,395 Bze.

**MEDIUM ENTERPRISE**: Any Enterprise that generates Earnings Before Tax (EBT)( $X_1$ ) that fluctuates between \$120,001 to \$19,465,136 with Business Tax (BT)( $X_2$ ) contribution between \$6,070 and \$525,000, as well as General Sales Tax(GST)( $X_3$ ) between \$78,125 and \$3,750,000. These variables calculated a Net Operating Profit After Tax (NOPAT)(X4) between \$132,131 and \$16,589,858, which allowed an Expansion Investment (EI)(X5) between \$79,278 and \$2,006,775, as well as Free Cash Flow (FCF)(X6) between \$83,376 and \$13,271,886 Bze.

**SMALL ENTERPRISE**: Any Enterprise that generates Earnings Before Tax  $(EBT)(X_1)$  between the ranges of

\$25,801 to \$120,000 with Business Tax(BT) ( $X_2$ ) contribution between \$2,258 and \$6,069, as well as an additional General Sales Tax (GST)(X<sub>3</sub>) between \$16,125 and \$78,124. These variables calculated a Net Operating Profit After Tax (NOPAT)(X4) between \$25,223 and \$132,130, which allowed an Expansion Investment (EI)(X5) between \$5,494 and \$79,277, as well as Free Cash Flow (FCF)(X6) between \$22,718 and \$83,375 Bze.

*MICRO ENTERPRISE*: Any Enterprise that generates Earnings Before Tax (EBT) ( $X_1$ ) between the ranges of \$3,000 to \$25,800; with Business Tax (BT) ( $X_2$ ) contribution between \$105.0 and \$2,257; as well as an additional General Sales Tax (GST) )( $X_3$ ) between \$0,00 and \$16,125 Bze. These variables calculated a Net Operating Profit After Tax (NOPAT)(X4) between \$2,615 and \$25,222, which allowed an Expansion Investment (EI)(X5) between \$0,00 and \$5,493, as well as Free Cash Flow (FCF)(X6) between \$ 2,517 and \$ 22,717 Bze.

In summary, the findings indicate that base on the Free Cash Flow (FCF) (X6), 99% of the current enterprises represents Micro, Small and Medium Enterprises (MSME"s), considering that Large enterprises represent only 1.0% of the market. The breakdown structure corresponds to Medium, Small and Micro Enterprises, whose percentages were 25.3, 50.5 and 23.1 respectively as illustrated in Table No. 1 below

Table No.1, Enterprise Cluster by Municipality

		Enterprise Classifiaction				
		MICRO	SMALL	MEDIUM	LARGE	Total
In which	BELMOPAN	2.8%	2.1%	3.2%	.2%	8.3%
municipality is the	SAN IGNACIO & STA, ELENA	5.9%	6.2%	.7%		12.9%
enterprise located	BENQUE VIEJO	1.3%	.9%	.1%		2.4%
	ORANGE WALK	1.8%	3.0%	1.0%		5.8%
	COROZAL	2.0%	2.9%	.1%		5.0%
	SAN PEDRO	2.1%	9.3%	4.9%	.1%	16.4%
	BELIZE CITY	6.5%	19.9%	10.3%	.3%	37.1%
	PUNTA GORDA	1.9%	2.4%	.5%		4.9%
	DANGRIGA	.9%	3.7%	2.2%	.5%	7.3%
Total		25.3%	50.5%	23.1%	1.0%	100.0%

# 2.2 Marketing Investment / Cost

The Marketing Investment (MI) or Cost, can be referred to to cost inccured in the transformation of the good and services. According to Best (2013), the investment in marketing can be consider as a strategy for cost based pricing which is logical from a financial perspective and is considered easy to follow. Additionally, it set the stage for cost base pricing as the most commonly pricing strategy that is been use. On another note the author also mentioned that according to a study 60% of the business surveyed used cost-based pricing as their primary basis for price setting.

It is important to mention that customers and competitor are missing from this approach to pricing. First, cost-based pricing ignores customers performances needs and what will pay be paid for a desired level of product performance. Second, this approach to pricing overlooks both competitions' offerings relative to customers' needs and price sensitivity.



Nevertheless, Value based pricing base on marketing investment, Starts with customer needs competitors' product-price positioning, and company product-price positing. Taking into consideration customer needs, customers' price sensitivity, and competitive products, a company develop its price around a product's relative strength to create great value than competing products offer. (Best, Roger J. 2013).

#### 2.3 Marketing Returns on Sales (MROS)

Kolter 2012, stated that returns are seen as a nuisance to customers, manufacturers, retailers and distributors alike, product returns are also an unavoidable reality of ding business, especially with on line purchases. Although the average return rate for on line sales is roughly 5 percent, return and exchange policies are estimated to serve as a deterrent for one-third to one-half of on line.

On another note Best (2013), indicated that the Market Returns on Sale(MROS) can be considered as a metric that should be considered as extra work, but a part of work. Managing marketing performance and profitability is n fact an important of a managers responsibility. Additionally, Marketing metrics are too important to be simply an add-on to the marketing or product manager's responsibilities. Mover over metrics should be at the core of their management efforts, if you don't measure it, you can't manage it. If marketing managers are paid to manage marketing performance, it seems obvious that they should be measuring it.

### **2.4 Correlations**

A correlation is a measure of strength and direction of any statistical association between two or variables. The strength is measure base on numeric value (0.00 to 1.00) called coefficient; meanwhile direction on the nature, which can be positive or negative. Although the correlation is associated with Pearson coefficient or as a Pearson product, there are many other types of correlation, such as phi ( $\Phi$ ) coefficient, tetrachoric, point biserial r, biserial r, Spearman r, and  $\eta$  (Warner, R. M; 2012, p.1080).

Moreover, Warner (2013), describe correlation as the strength of the linear equation between two quantitative variables describe as the designated or predictor (X) and Y as the (Outcome). the absolute magnitude of any correlation provides information about the strength of the linear association between scores on X and Y. For r close to 0, there is no linear association between scores X and Y. When r = + 1.00, there is a perfect positive linear association. Intermediate values of r corresponds to intermediate strength of the relationship.

On another note, the regression is a mathematical model that is used to estimate the effect of a variable or the interrelationship between variables, which is associated with Pearson coefficient. The measurement of the effect of the variable is analyzed through the lineal regression, which need a dependent variable and an independent variable to demonstrate the effects caused by the interactions of both in a graphical form as mentioned by Warner, R. M; 2012, p.344-345). The regression or also called Pearson's r is also known as a parametric correlation statistic that provides information about the strength of relationship between two quantitative variables; it should be used only when the variables are normally distributed, linearly related, and at least approximately at the interval / ration level of measurement (Warner, R. M; 2012, p.261-266).

# **2.5 Related Studies**

Studies on data driven Marketing have increase the Marketing Return on Sales (MROS) as performance indicator to 18% on an average by incorporating these strategies. These strategies were were as follows: *Significant strategic Change*: 40% of our assignments dealt with implementing significant strategic changes to the marketing mix of our clients. This meant changes to the overall marketing, marketing communications or media strategy, significant changes to budgeting and/or portfolio level investment allocations.

Activity mix optimization: 50% of our marketing mix modelling, or impact analysis, results in us recommending and helping our clients to implement small changes to budgeting allocations and focused more on optimizing the operative activity mix per brand, category or division; optimizing the timing of activities and investments inside campaigns and utilizing synergies between different parts of the marketing mix.

*Fine tuning marketing plans*: 10% of our assignments derived results where only fine-tuning the existing activity mix or investment allocations was needed. These were almost predominantly companies, who had taken ROI measurement and optimization as a part of the marketing process and optimization had been done through the course of many years before the analysis period.

# III. HYPOTHESES DEVELOPMENT

# 3.1. Alternative Hypothesis

- H<sub>1</sub>: There is statistical significance in the Marketing Investment (MI) as well as the Marketing Returns on Sales (MROS) of the different enterprises (Micro, Small, Medium and Large).
- $H_2$ : The four different groups of enterprises (Micro, Small, Medium and Large) require different percentage of Marketing Investment (MI) to stimulate acceptable Returns on sales forecast.
- H3: There is a positive and high correlation that exists between the Marketing Investment (%) and the Marketing Returns on Sales (MROS).

# **IV. METHODOLOGY**

# 4.1. Research Design

This study was carried out using the calculated Marketing Return on Sales (MROS) and Marketing Investment (MI) data of enterprises according to their size. Micro (374), Small (761), Medium (348), and Large (14) for a total of 1500 enterprises.



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This sample was equivalent to an average of 15% of the population (10,233) of registered enterprises in the nine municipalities in the country. Information was taken from the enterprises that were registered during the last three fiscal years (April 1st, 2013 to Mach 31st 2016).

The Enterprises' were stratified according to the Municipality where they were located as illustrated in the table below.

Municipality	# Enterprise (N)	Stratified	Participation	
		Sample	%	
Punta Gorda	364	71	5%	
Dangriga	441	113	8%	
Belmopan	656	125	8%	
San Ignacio & Santa. Elena	1355	193	13%	
Benque Viejo	196	36	2%	
Belize City	4336	556	38%	
San Pedro	1830	245	16%	
Orange Walk	575	86	6%	
Corozal	480	75	5%	
TOTAL	10233	1500	100%	

Table No.2, Registered Enterprises and Sample Size byMunicipality

To obtain the following variables such as Marketing Investment (MI) and Returns on Marketing Investment (ROMI), the calculation was done using the formula that appears below:

- 1. Marketing Investment (MI) = Cost of Marketing / Gross Sales (GS).
- 2. Marketing Returns on Sales (MROS) = Marketing Investment / Earnings before Tax (EBT).

After the calculation of the variables the exercise continued with the reassignment of these financial indicators as follows: 1) Marketing Investment (MI)( $X_1$ ) and 2) Returns on Marketing Investment (MROS)( $X_2$ ). These indicators were selected considering that they were identified as the dependent and independent variables respectively.

### V. RESULTS

### 5.1. Regression analysis of Micro Enterprises

The Analysis of variation (ANOVA) for the Micro enterprise's calculated statistical significance for the effects caused by both variables *Marketing return on Sales (MROS)* and *Marketing Investment(MI)*. The calculated F value (2223.41) > F. tab 0.0000 is greater, therefore the regression is significant. This demonstrates that the first Alternative hypothesis is accepted for the Micro enterprises. Table No 3, illustrates the values calculated for each source, Regression and Residual as well the Frequency degree (DF), Sum of Square(SS) and Square means(SM) as illustrated below.

Table No.3, Analysis of Variation of the Micro Enterprises

Source	df	SS	MS	F	Significance F
Regression	1	0.65	0.65	2223.41	0.00000
Residual	373	0.11	0.00		
Total	374	0.76			

With regards to regression analysis on the Marketing Return on Sales (MROS), The interpretation of the

calculation also concluded the Null Hypothesis No 1 is accepted, since the regression is linear (George, D. & Mallery, P; 2014, p. 198-202). Moreover, the overall regression including the predictor, which was statistically significant considering that it is positive and very high as expressed by the indicators R=0.925,  $R^2=0.856$ , F (1, 373) = 2223.41, F < 0.0000. The independent variable is responsible for 98.3% of the variances that occurs in the Marketing return on Sales (MROS) as a dependent variable, as expressed statistically in Table No 4 below.

Regression Statistics					
Multiple R	0.925				
R Square	0.856				
Adjusted R Square	0.856				
Standard Error	0.017				
Observations	375				

Table No.4, Regression Statistics for Micro Enterprises

Finally to evaluate the strength of the regression, Table No 5 by Dance and Reidy's (2004) organization; was used for comparison of the analysis. Additionally the estimated Lineal Equation for the Micro enterprises is Y = 0.015 + 0.0231(X). Dancey and Reidy Correlation value as well the Graphical representation of the Marketing Returns on Sales and Marketing Investment is illustrated below.

 Table No 5, Correlation Coefficient Value and

 Correlation Strength

Correlation Coefficient Value	Correlation Strength	
1.00	Perfect	
0.7 – 0.90	Strong	
0.40 - 0.60	Moderate	
0.10 – 0.30	Weak	
0	Zero	

Source: Dancey and Reidy's (2004) organization.



### 5.2 Regression analysis of Small Enterprises

The Analysis of variation (ANOVA) for the Large enterprise's calculated statistical significance for the effects caused by both variables *Marketing return on Sales* and *Marketing Investment*. The calculated F value (10820.02) > F. tab 0.0000 is greater, therefore the regression is significant. This demonstrates that the first Alternative hypothesis is accepted for the Small enterprises. Table No 6, illustrates the values calculated for each

source,

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Regression and Residual as well the Frequency degree (DF), Sum of Square (SS) and Square means(SM) as illustrated below.

Source	df	SS	MS	F	Significance F
Regression	1	2.60	2.60	10820.02	0.00000
Residual	760	0.18	0.00		
Total	761	2.78			

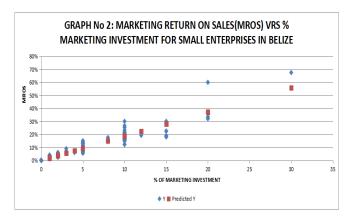
Table No.6, Analysis of Variation of the Small Enterprises

With regards to regression analysis on the Marketing Return on Sales (MROS), The interpretation of the calculation also concluded the Null Hypothesis No 1 is accepted, since the regression is linear (George, D. & Mallery, P; 2014, p. 198-202). Moreover, the overall regression including the predictor, which were statistically significant considering that it is positive and very high as expressed by the indicators R=0.967,  $R^2=0.934$ , F (1, 760) = 10820.02, F < 0.0000. The independent variable is responsible for 98.5% of the variances in the Marketing return on Sales (MROS) as a dependent variable, as expressed statistically in Table No 7 below.

**Table No.7, Regression Statistics for Large Enterprises** 

Regression Statistics					
Multiple R	0.967				
R Square	0.934				
Adjusted R Square	0.934				
Standard Error	0.015				
Observations	762				

Finally to evaluate the strength of the regression, Table No 5 by Dance and Reidy's (2004) organization; was used for comparison of the analysis. Additionally the estimated Lineal Equation for the Small enterprises is Y = -0.0003 + 0.0186(X). The Graphical representation of the Marketing Returns on Sales and Marketing Investment is illustrated in the graph below.



#### 5.3 Regression analysis of Medium Enterprises

The Analysis of variation (ANOVA) for the Large enterprise's calculated statistical significance for the effects caused by both variables *Marketing return on Sales* and *Marketing Investment*. The calculated F value (3780.548) > F. tab 0.0000 is greater, therefore the regression is significant.

This demonstrates that the first Alternative hypothesis is accepted for the Medium enterprises. Table No 8, illustrates the values calculated for each source, Regression and Residual as well the Frequency degree(DF), Sum of Square(SS) and Square means(SM) as illustrated below.

Table No.8, Analysis of Variation of the Medium Enterprises

Source	df	SS	MS	F	Significance F
Regression	1	3.735	3.735	3780.548	0.000000
Residual	347	0.343	0.001		
Total	348	4.078			

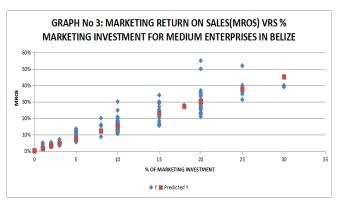
With regards to regression analysis on the Marketing Return on Sales (MROS), The interpretation of the calculation also concluded the Null Hypothesis No 1 is accepted, since the regression is linear (George, D. & Mallery, P; 2014, p. 198-202). Moreover, the overall regression including the predictor, which were statistically significant considering that it is positive and very high as expressed by the indicators R= 0.957,  $R^2 = 0.916$ , F (1, 347) = 3780.45, F < 0.0000.

The independent variable is responsible for 96.6% of the variances in the Marketing return on Sales (MROS) as a dependent variable, as expressed statistically in Table No 9 below.

Table No.9, Regression Statistics for Medium Enterprises

Regression Statistics					
Multiple R 0.95					
R Square	0.916				
Adjusted R Square	0.916				
Standard Error	0.031				
Observations	349				

Finally to evaluate the strength of the regression, Table No 5 by Dance and Reidy's (2004) organization; was used for comparison of the analysis. Additionally the estimated Lineal Equation for the Medium enterprises is  $\mathbf{Y} = 0.0020 + 0.0150(\mathbf{X})$ . The Graphical representation of the Marketing Returns on Sales and Marketing Investment is illustrated in the graph below.



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# 5.4 Regression analysis of the Large Enterprises

The Analysis of variation (ANOVA) for the Large enterprise's calculated statistical significance for the effects caused by both variables Marketing return on Sales and Marketing Investment.

The calculated F value (13.092) > F. tab 0.0029 is greater, therefore the regression is significant. This demonstrates that the first Alternative hypothesis is accepted for the Medium enterprises. Table No 8, illustrates the values calculated for each source, Regression and Residual as well the Frequency degree (DF), Sum of Square (SS) and Square means(SM).

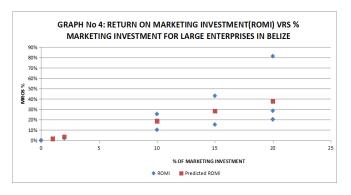
With regards to regression analysis on the Marketing Return on Sales (MROS), The interpretation of the calculation also concluded the Null Hypothesis No 1 is accepted, since the regression is linear (George, D. & Mallery, P; 2014, p. 198-202). Moreover, the overall regression including the predictor, which were statistically significant considering that it is positive and very high as expressed by the indicators R=0.733,  $R^2=0.537$ , F (1, 12) = 13.920, F < 0.0029.

The independent variable is responsible for 83.9% of the variances in the Marketing return on Sales (MROS) as a dependent variable, as expressed statistically in Table No 11 below.

Table No.11, Regression Statistics for Large Enterprises

Source	df	SS	MS	F	Significance F
Regression	1	0.360	0.360	13.920	0.0029
Residual	12	0.310	0.026		
Total	13	0.671			

Finally to evaluate the strength of the regression, Table No 5 by Dance and Reidy's (2004) organization; was used for comparison of the analysis. Additionally the estimated Lineal Equation for the Medium enterprises is  $\mathbf{Y} = -0.0039 + 0.0191(\mathbf{X})$ . The Graphical representation of the Marketing Returns on Sales and Marketing Investment is illustrated in the graph below.



# VI. CONCLUSION

1. There was very high statistical significance in the effects caused by Marketing returns on Sales (MROS) and the Marketing Investment (MI) of the four major groups (Micro, Small, Medium and Large Enterprises (MSMLE's).

- 2. The four types of enterprise presented positive and very high correlations between the variables Marketing returns on Sales (MROS) and the Marketing Investment (MI) according to Dancey & reding (2004). These correlation values were 0.925, 0.967, 0.957 and 0.733% for the Micro, Small, Medium and Large enterprises respectively., which confirms the acceptance of the third hypothesis.
- 3. With the different types of enterprises (Micro, Small, Medium and Large Enterprises(MSMLE's), the independent variable is responsible for 98.3, 98.5, 96.6and 83.9% of the variances in the Marketing return on Sales (MROS) as a dependent variable respectively with confirm the Second hypothesis the each type of enterprise size require a specific range of Marketing Investment.
- 4. The calculated Lineal equation for the enterprises (Micro, Small, Medium and Large Enterprises(MSMLE's) are as follows: Y = 0.0015 + 0.0231X, Y = -0.0003 + 0.0186X, Y = 0.0020 + 0.0150X, Y = -0.0039 + 0.0191X

### RECOMMENDATION

1. Base on the variables evaluated; it is important to invest in marketing between the average range and according to the size of the Enterprise (Micro, Small, Medium and Large). Moreover; these variables were statistically significant and highly correlated as expressed by the F values.

2. Use the graphical representation to determine the Maximum and Minimum and thereafter use the mathematical equation to estimate the Marketing returns on sales (MROS) calculated for each group of enterprise base on the Marketing Investment.

3. Encourage enterprise to invest in marketing considering that the input in regards to marketing Investment is highly correlated to Marketing Returns on Sales (MROS).

# REFERENCES

- Best, J.R. (2013), Market-Based Management; Strategies for growing customer value and profitability, (6th.Ed.), USA: PEARSON, pp. 485– 498
- Boguslauskas, V. & Adlyte, R. (2010), Evaluation of Criteria for the classification of Enterprises, Ruta. Engineering Economics. 2010, Vol. 21 Issue 2, p119-127
- Creswell, J.W. (2011), Research Design; Qualitative, Quantitative, and Mixed Methods Approaches, (3rd Ed.), India: Sage Publication, pp. 16–89
- George, D. & Mallery, P. (2014), IBM SPSS; Statistics 21, Step by Step, A simple guide, and reference (13th), Pearson Education Inc: pp. 282-295
- Grishmma, P & Sangvikar, B. V (2016), Understanding the Re-patronage intention of Supermarket customers: A cluster Analysis, P. 1 - 20
- Hallberg, K. (2000), A Market-Oriented Strategy for Small and Medium Scale Enterprises; Discussion Paper 40, International Finance Corporation (IFC), USA: pp. 1-23
- Harris, E. A. (2010), You can be a successful business person; Micro, Small & Medium Enterprises (MSME's) Fundamentals, (2nda.Ed.), 1st Ed, USA.



- 8. Herrle, E. (2006) The promotion of small and medium-sized Enterprises in the EU; Seminar paper: (1st Ed), Germany, pp. 1-23.
- 9. Khrystyna K. (2010), How Do Economies Define Micro, Small, and Medium Enterprises (MSMEs)? pp 1-35
- 10. Kotler, P & Keller, L.K. (2012), Marketing Management, (14th. Ed.), USA: PEARSON, pp. 34-47
- Ratner, Bruce. Journal of Targeting, Measurement & Analysis for 11. Marketing. Sep2009, Vol. 17 Issue 3, p229-242.
- 12. Seepersaud, M. M, (2012), Belize MSME policy and strategy report, Belize, pp. 5-61
- 13. Paul, Annie Murphy (2004). The Cult of Personality: How Personality Tests Are Leading Us to Miseducate Our Children, Mismanage Our Companies, and Misunderstand Ourselves. New York: Free Press
- 14. Pooja, K. (2009), Micro, Small and Medium Enterprise, (14th Ed.)
- 16. Tri Rahayu1, S. A; (2010), Analysis of investment decision in 15. Micro, Small and Medium Enterprise (MSME's) in Indonesia.
- 16. Vintila, G. & Ghenghina, S.C (2014), Pattern recognition techniques to classify the European Markets companies from the valuation perspective, Jan, Vol. 48, Issue 1, p.1-17.
- 17. Warner, R. M; (2012), Applied Statistics: From Bivariate Through Multivariate Techniques, (2nd ed), Sage Publication Inc, pp. 51-59



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