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# The Integrative Effects of Various Management Strategies in the Performance of MSMES<sup>1</sup>

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**Abstract:** The study of integrative effects of various management strategies in Kenyan MSMEs was an objective in a major study leading to doctoral award. The various management strategies selected were the chief executive (owner manager strategies), human resource, technological, financial, entrepreneurial, marketing as well as interpersonal and environmental factors. Profitability was taken as the measure of performance. A predictive equation was obtained capable of classifying cases into either performance or non performance. Several recommendations were made that would benefit the managers of MSMES.

**Key words:** Integrative effects; MSMEs; Management strategies; Management factors; Performance

# **1. INTRODUCTION**

The integration of key strategies within any institution and the alignment with the external environment is expected to affect organizations performance (author). In a study of the integration of manufacturing and marketing/sales decisions, Kelly and Flores (2002), alludes that such an integration impacts on organizational performance. The study dwells on key decision areas and how they relate to structure and organization strategy. Earlier, organizational performance was found to be dependent on the fit between the selected strategy, structure and environment (Preston 1977). What is not clear is whether there are any benefits obtained by the kind of strategies selected and the level of effect of each type of strategy. This study therefore was set to fill that gap.

#### **1.1 Performance**

Performance is often defined simply in terms of output terms such as quantified objectives or profitability. Armstrong in Njanja, Pellissier and Ogutu (2010) defines performance as both behaviour and results. This definition covers the achievement of expected levels as well as objective setting and review. The underlying thought behind this study is actually to investigate this relationship bearing in mind that if the behaviour of management is right, then the expected levels of output will be achieved (success) and vice versa for failure. Success and failure are taken as the two ends of the performance continuum.

Many authors in trying to set out a clear definition of performance; (Reed, Lemark & Mero, 2000: 5-26, Ginsbert. and Venkatraman, 1985: 25-39, Chu-Hua, Madu & Lin 2001: 864-72; Terziovski. & Samson, 2000: 144-9), states that debate continues to date within the academic literature, more so regarding some aspects of

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terminology issues, analytical levels, and the conceptual basis for assessment. According to Ginsbert and Venkatraman (1985:25-39), "There are three different levels of performance within organisations". They are distinguished as the financial performance, business performance and organisation effectiveness, although the latter has been subsequently known as organisational performance (Chu-Hua, Madu & Lin 2001: 864-72; Terziovski & Samson, 2000: 144-9). Performance is the key interest of every business manager or owner. The overall performance of the organisation depends on proper management of the three levels, which fall within the jurisdiction of top, middle and lower management.

#### **1.2 Organisational Effectiveness**

Organisation effectiveness refers to the overall success of the firm. Effectiveness is primarily a question of "doing the right things" even more than performing them efficiently "doing things right" Cole (2006: 5). This effectiveness has to do with-long term prosperity as opposed to short- term profitability. To achieve this, long-term objectives are set. Pearce and Robinson (2007: 190-191) suggest the following areas to be covered:

- · Profitability
- · Productivity
- · Competitive position
- · Employee relation
- · Technological leadership
- · Public responsibility.

The first two levels of performance (financial and business) fall into the overall organisation performance. They are shorter term measures of long-term performance. This study addressed performance as the percentage change within the profitability levels.

#### **1.2.1 Financial Performance**

Firms use financial information developed by accountants to support decisions. For example, the historical revenue and cost information can be used for budgeting decisions. The marketing managers can use sales information to evaluate the impact of a particular promotion strategy while the same sales information can be used by production manager to determine the future production levels. Income statements are very useful in measuring financial performance where many kinds of ratio analysis can be calculated (Madura 2007:565-590).

#### **1.2.2 Business performance**

Business performance is sometimes used to refer to the outcome of the whole business but in management, it is used to refer to the middle level activities within an organisation. The managers at this level will select strategies that create competitive advantages in order to experience above average profitability within the industry (Pearce & Robinson 2007: 233)

#### 1.3 Micro Small and Medium Enterprises (MSMEs)

Micro, Small and Medium Businesses (MSMEs) are generally regarded as the "backbone of the economy" (Kirby, 2003: 115-226). These businesses constitute a majority of the economic growth and development that is derived. There are more than 22.9 million small and medium businesses (SBA), which account for almost 50% of the nation's gross domestic product (Walker,1989:285-296) in the United States and 99.8 percent of firms being classified as small businesses in the European Union (Matlay & Westhead, 2004: 326-27). These authors continue to state that the pool of resources that SMES and MSES or MSMES have is largely having an impact on the misconception that "small business is just small business and should generally be left alone or in the dark".

Small businesses employ large numbers of people and greatly contribute to the national income as documented in various studies. Some of the studies include (Nabi, 2003: 371-82; Berger, 2005:346 and the Kenyan Sessional Paper No. 2 of 2005 on Development of Micro and Small Enterprises). In this regard, a

number of studies in the United States and Canada show that contributions of small business enterprises are not the same across all the enterprises. Those small enterprises which survive (Bates, 1995: 26-36) play a much more important role in national development. Reynold (1987: 231-246) indicates that only about one third of all small firms account for most of the societal contributions in terms of sales, employment and out-of-state exports.

Longenecker, Moore, Petty and Palich (2006: 7) and (Mason, 1991: 215-226) suggest that to define the small businesses requires use of different criteria such as the number of employees, sales volume and value of assets. They categorise the MSMEs as those businesses that:

- $\cdot$  Have been financed by a one or only a few people.
- $\cdot$  The business operations are geographically localised.
- · They are not dominant compared to bigger firms in the same industry.
- $\cdot$  The numbers of employees does not exceed 100.

From the Ministry of Labour in Kenya, a micro-enterprise has 0 to 9 employees, small enterprise has 10 to 49 employees and medium has 50 to 99 employees. This study focused on MSMEs employing between 1 and 99 employees.

#### **1.4 Research Problem**

A number of research have gone into factors that contribute to success or failure in Micro Small and Medium Enterprises world over (Bruno **et al.**, 1987: 50-58; Vesper, 1980: pp. 27-55; Dun &Bradstreet, 1989: pp. 144-9; Cooper, 1989: 317-332; Sommers **et al.**, 1964: pp. 35-39). Generally, these research results are mixed up, making it difficult to understand the exact causes because factors citing reasons for failure also appear as factors affecting success (Gaskill **et al.**, 1993: 18-31). Among the many limitations of the previous studies is that the various factors were studied in isolation. No effort has been made to investigate the integrated effect of the various strategies. The researcher aims at investigating the integrative effects on management strategies of MSMES and their effect on performance.

#### **1.5 Research Objectives**

The objective of this article is to highlight the integrative effects of management strategies and their effect on performance.

# 2. RESEARCH DESIGN AND METHODOLOGY

#### 2.1 Design

The study was cross-sectional survey in the sense that relevant data was collected at some point in time. The reason for preferring a cross-sectional study was due to the vast nature of the project and the time limitation. Second, the researcher dealt with events that had happened and the researcher had no control over the variables in terms of being able to control or manipulate them; it was an ex-post facto design (Thietart et al., 2003).

#### 2.2 Sample Design

Random sampling design was used to assist in minimizing bias when dealing with the population. Fourteen towns were randomly selected from the eight provinces in Kenya. Stratified sampling was used to enable the researcher to get information from different sizes of the MSMEs namely, the micro, small and medium enterprises. Within the different sizes, systematic sampling was used to arrive at the final sample.

#### 2.3 Data Collection

The main data collection instrument was a structural questionnaire. This was administered to the top/executive manager, middle/operational Manager, lower/functional manager or the relevant manager who heads the enterprise. It was administered through interviews with managers. The interview mode of data collection was preferred due to its high response rate as compared to either mail or telephone interview.

Further, the mode provides for clarification of questions. Care was taken to afford the respondent independence and avoid researcher influence (Saunders, Lewis & Thornhill 2003: 280-316).

# 3. DATA ANALYSIS AND INTERPRETATION

Discriminant analysis were used. The purpose of discriminant analysis is to estimate the relationship between a categorical dependent variable and a set of continuous independent variables, called predictors. Differently stated, discriminant analysis is used to model the value of a dependent categorical variable based on its relationship to one or more predictors.

The population is subdivided into a number of non-overlapping subpopulations, or pre-defined groups (e.g. performance / nonperformance). In discriminant analysis, a discriminant function is developed to classify an item (e.g. organization) into a group on the basis of a profile of measurements on the independent variables. The test in table 1 was done for all businesses, did not differentiate the categories so it included all business categories .The Independent variables are the Management factors B15.3, C14, C24, C25b, C26-30, C32-34 and the Dependent variable are the bprchang1ne(Performance/Non-performance1 : 2006-2005).

Table 1: Management Factors – B15.3, C14, C24, C25b, C26-30, C32-34 and Prchang1new (Performance/Non-performance1: 2006-2005)

(1 ci ioi inai	ice/1001-perior mancer.	2000-2003)			
Variable	Wilks' Lambda	F	df1	df2	Sig.
Management role/responsibility	.993	1.033	1	157	.311
Interpersonal skills	1.000	.002	1	157	.963
The human resources skills	.980	3.282	1	157	.072
Strategic management factors	.974	4.175	1	157	.043
Finances/capitalization factors	.982	2.810	1	157	.096
Marketing management factors	.952	7.977	1	157	.005
Entrepreneurial management factors	.968	5.219	1	157	.024
Technological factors	.966	5.555	1	157	.020
Macroeconomic environment factors	.995	.714	1	157	.399
Regulation and policy issues	.981	3.078	1	157	.081
Incentive policies	.966	5.467	1	157	.021
Institutional policies	.955	7.333	1	157	.008

The "tests of equality of group means" measure each independent variable is potential before the model is created. It is a test to see which independents contribute significantly to the discriminant function. The smaller the Wilks' lambda for an independent variable, the more that variable contributes to the discriminant function. Lambda varies from 0 to 1, with 0 meaning group means differ (thus the more the variable differentiates the groups), and 1 meaning all group means are the same. The F test of Wilks's lambda shows which variables' contributions are significant.

Each test displays the results of a one-way ANOVA for the independent variable using the grouping variable as the factor. If the significance value is greater than 0.10, the variable probably does not contribute to the model. Wilks' lambda is another measure of a variable's potential. The smaller the value, the better the variable is at discriminating between groups. We can order the variables according to their value of Wilk's lambda:

Table 2: The Wilks Lambda for Prchang1new	(Performance/Non-performance1: 2006-2005)
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Variable	Wilk's Lambda	Rank
Marketing management factors	0.952	1
Institutional policies	0.955	2
Incentive policies	0.966	3
Technological factors	0.966	3
Entrepreneurial management factors	0.968	5
Strategic management factors	0.974	6
The human resources skills	0.980	7
Regulation and policy issues	0.981	8
Finances/capitalization factors	0.982	9
Management role/responsibility	0.993	10
Macroeconomic environment factors	0.995	11
Interpersonal skills	1.000	12

From table 2 it can be seen that "Marketing management factors" has the biggest potential to contribute to the model, followed by "Institutional policies, "Incentive policies and "Technological factors. On the other hand, "Management role/responsibility, Macroeconomic environment factors" and "Interpersonal skills" will probably not contribute significantly to the discriminant model that will be developed.

Table 3: Log Determinants						
Performance/non-performance1:2006-2005	Rank	Log Determinant				
Performance	12	-33.938				
Non-performance	12	-16.581				
Pooled within-groups	12	-16.712				
	. 1 .1 .6.1	• •				

The ranks and natural logarithms of determinants printed are those of the group covariance matrices.

Where sample size is large (benchmark is approximately 50), even small differences in covariance matrices is found significant by Box's M, when in fact no substantial problem of violation of assumptions exists. Therefore, one also should look at the log determinants of the group covariance matrices. If the group log determinants are similar, then a significant Box's M for a large sample is ignored. Dissimilar log determinant indicates violation of the assumption of equal variance covariance matrices, leading to greater classification errors.

#### **3.1 Population Covariance Matrices**

The Box's M test is a test of the null hypothesis that the population covariance matrices for the two groups (performance/nonperformance) do not differ significantly. The null hypothesis is rejected if the p-value ("Sig.") of the F statistic is less than or equal to 0.05. This test is important, because it determines what type of discriminant function is developed. In the case of equal population covariance matrices, a linear discriminant function is developed, but in the case of unequal population covariance matrices, a quadratic discriminant function is developed.

The above result shows that Box's M = 187.633, F (approx.) = 1.435 with a P-value of 0.009. This means that the population covariance matrices for the two groups differ significantly from each other, and therefore a quadratic discriminant function is developed.

#### 3.2 Wilks' Lambda

Wilks' lambda is a measure of how well each function separates cases into groups. It is equal to the proportion of the total variance in the discriminant scores not explained by differences among the groups. Smaller values of Wilks' lambda therefore indicate greater discriminatory ability of the function.

In table 2, Wilks' lambda is used to test the null hypothesis that the mean discriminant function scores for the two groups do not differ significantly. It is, therefore, testing the significance of the discriminant function as a whole.

If the P-value of the associated Chi-square statistic ("Sig.) is less than or equal to 0.05, one can reject the null hypothesis and conclude that the model. The Wilks Cambda is 0.434 thus is in fact discriminating between the two groups, i.e. the discriminant function does better than chance at separating the two groups.

The standardized coefficients allow you to compare variables measured on different scales and is an indication of the relative importance of the independent variables in predicting the outcome of the dependent variable. Coefficients with large absolute values (benchmark is approximately 0.5) correspond to variables with greater discriminating ability.

Table 4: Standardized Canonical Discriminant Function Coefficients						
Variable	Function	Variable	Function			
v ariable	1	- variable -	1			
Management Role/Responsibility	124	Entrepreneurial management factors	.119			
Interpersonal skills	136	Technological factors	.209			
The human resources skills	265	Macroeconomic environment factors	397			
Strategic management factors	.110	Regulation and policy issues	017			
Finances/Capitalization factors	054	Incentive policies	.226			
Marketing management factors	.625	Institutional policies	.517			

# Table 4: Standardized Canonical Discriminant Function Coefficients

In table 4, we observe that "Marketing management factors" (0.625) and "Institutional policies" (0.517) have the largest standardized coefficients, meaning that they have the greatest ability to discriminate between "performance" and "non-performance".

"Structure coefficients vs. standardized discriminant function coefficients.

The standardized discriminant function coefficients indicate the semi-partial contribution (the unique, controlled association) of each variable to the discriminant function, controlling the independent but not the dependent for other independents entered in the equation (just as regression coefficients are semi-partial coefficients).

In contrast, structure coefficients are whole (not partial) coefficients, similar to correlation coefficients, and reflect the uncontrolled association of the discriminant scores with the criterion variable. That is, the structure coefficients indicate the simple correlations between the variables and the discriminant function or functions.

The structure coefficients should be used to assign meaningful labels to the discriminant functions. The standardized discriminant function coefficients should be used to assess the importance of each independent variable's unique contribution to the discriminant function."

"The ordering in the structure matrix is the same as that suggested by the tests of equality of group means and is different from that in the standardized coefficients table. This disagreement is likely due to collinearity between some of the independent variables." (Tutorial in SPSS 15.0).

	Variable	Function
	variable	1
$X_1 =$	Management role/responsibility	182
$X_2 =$	Interpersonal skills	164
$X_3 =$	The human resources skills	433
$X_4 =$	Strategic management factors	.185
$X_{5} =$	Finances/capitalization factors	115
$X_{6} =$	Marketing management factors	1.116
$X_7 =$	Entrepreneurial management factors	.198
$X_8 =$	Technological factors	.293
$X_{9} =$	Macroeconomic environment factors	483
$X_{10} =$	Regulation and policy issues	023
$X_{11} =$	Incentive policies	.299
$X_{12} =$	Institutional policies	.744
	(Constant)	-5.020

#### Table 5: Canonical Discriminant Function Coefficients

Unstandardized coefficients.

The discriminant function from table 5 is of the form  $L = b_1 x_1 + b_2 x_2 + ... + b_k x_k$ , where *L* is the discriminant score and the  $b_i$ 's are the unstandardized discriminant function coefficients. The above table displays these coefficients. The discriminant function coefficients reflect the unique contribution of each variable to the classification of the criterion variable (prchang1new). In this case we have.

 $L = -5.020 - 0.182 \ X_1 - 0.164 \ X_2 - 0.433 \ X_3 + 0.185 \ X_4 - 0.115 \ X_5 + 1.116 \ X_6 + 0.198 \ X_7 + 0.293 \ X_8 - 0.483 \ X_9 - 0.023 \ X_{10} + 0.108 \ X_{10} + 0$ 

 $0.0299 \ X_{11} + 0.744 \ X_{12}$ 

This is the actual prediction equation, which can be used to classify new cases into either of the two groups "performance" or "non-performance". In the case of equal population covariance matrices, the lassification rule is as follows: If group 1 is the reference group, then the respondent is allocated to group 2 if and only if his discriminant score is larger than or equal to zero. If group 2 is the reference group, then the respondent is allocated to zero. This means that two respondents will be classified into different groups if the one respondent has a positive discriminant score and the other respondent has a negative discriminant score.

In the case of unequal population covariance matrices, the following general classification rule can be used: If group sizes are equal, the cutoff point is the mean of the two group centroids. If group sizes are unequal, the cutoff point is the weighted mean,

# *WL Njanja; Rene' Pellisier/International Business and Management* Vol.2 No.2, 2011 $[n_1(centroid_1) + n_2(centroid_2)]/n$ , where

 $n_i$  is the size of group i, *centroid*, is the centroid for group i, and n is the sample size. If the discriminant score for a case is less than or equal to the cutoff point, the case is classified into group 1 or if above it is classified into group.

One discriminant score is calculated for each item (respondent) included in the analysis by making use of the discriminant function. The "group centroid" is the mean of all the discriminant scores within a group. If the two means are well apart, it means that the discriminant function is clearly discriminating between the two groups. The closer the means, the more errors of classification there likely will be.

In this case, the centroid for the "Performance" group is -0.964 and the centroid for the "Non-performance" group" is 0.086. The difference between the two group centroids is therefore 0.086 - (-0.964) = 1.05, which is satisfactory. It can be concluded that the discriminant function does a good job of classifying items into groups. The cutoff point for classification is in this case [13(-0.964) + 146(0.086)]/159 = -0.07125

Since L = -0.72986 is smaller than -0.07125, the case is classified into group 1 (Performance).

	Table 6: Classification Results (a)							
Performance/Nonperformance1 : 2006-2005		Predicte	Predicted Group Membership					
		Performance	Nonperformance	Performance				
Count	Performance	0	14	14				
Original %	Count	Nonperformance	0	166	166			
	% Perform Nonperform	Performance	.0	100.0	100.0			
		Nonperformance	.0	100.0	100.0			

#### a) 92.2% of original grouped cases correctly classified

The classification table shows the practical results of using the discriminant model, and is used to assess the performance of the discriminant analysis, i.e. the predictive ability of the derived discriminant function. The rows are the observed frequencies for the categories of the dependent variable and the columns are the predicted frequencies.

Correctly predicted cases lie on the diagonal, therefore, if all cases lie on the diagonal, the discriminant function has 100% predictive ability. The percentage of cases on the diagonal is the percentage of correct classifications, and is called the 'hit ratio'.

The hit ratio must be compared to the percentage of cases that would have been correctly classified by %. chance alone, and must preferably be larger. For two-group discriminant analysis with groups of different sizes, this expected percentage is a weighted average of the prior probabilities for the two groups. The prior probabilities is found in the table above called "Prior Probabilities for Groups". The calculation is as follows,  $ep = (n_1 p_1 + n_2 p_2)/n$ , where ep is the expected percentage,  $n_i$  is the sample size of group *i* and n is the total sample size. In this case, we have ep = [(13) (0.082) + (146) (0.918)]/159 = 0.8496 = 84.96

1  able  1  Dependent variable.  1  changenew (1 choin mance/1) on - choin mance2, 2003-200	Table 7: Dependent Variable:	Prchang2new	(Performance/Non	- erformance2:	2005-20	04
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	Wilks' Lambda	F	df1	df2	Sig.
Management role/responsibility	.992	1.247	1	160	.266
Interpersonal skills	.973	4.390	1	160	.038
The human resources skills	.976	3.968	1	160	.048
Strategic management factors	.990	1.619	1	160	.205
Finances/capitalization factors	.968	5.364	1	160	.022
Marketing management factors	.970	4.960	1	160	.027
Entrepreneurial management factors	.986	2.274	1	160	.134
Technological factors	.988	1.998	1	160	.159
Macroeconomic environment factors	.989	1.780	1	160	.184
Regulation and policy issues	.987	2.173	1	160	.142
Incentive policies	.976	3.946	1	160	.049

From the results, it is evident that the hit ratio is 92.2 %, the percentage of cases that were correctly classified by the model. By change alone, it is expected that 84.96 % of the cases will be correctly classified. Therefore, the hit ratio is larger than what is expected by change alone. This suggests that the discriminant function has a good predictive ability and, overall, the model is in fact correct just more than nine times out of ten.

The interpersonal skills, the human resource skills and finances / capitalization factors, marketing management factors and incentive policies showing the variables probably contribute to the model (table 7). The significance level is below 0.05. The finances / capitalization followed by human resources skills and incentive polices contribute more significantly. The group log determinant does not differ. Non-performance is -15.186 while the pooled performance is 15.223. It is almost 50% therefore BOX's M test is ignored. The P-value of the Chi- squire statistic is 0.3877 greater than 0.05

Tuble of Blundul dized Cunomean Discriminant I direction Coeff	iciciius
	Function
	1
Management Role/Responsibility	390
Interpersonal skills	.650
The human resources skills	.319
Strategic management factors	494
Finances/Capitalization factors	.470
Marketing management factors	.415
Entrepreneurial management factors	046
Technological factors	.036
Macroeconomic environment factors	.020
Regulation and policy issues	078
Incentive policies	.357

#### **Table 8: Standardized Canonical Discriminant Function Coefficients**

The variables whose scales are higher than the benchmark of 0.650 are interpersonal skills. This had the greatest ability to discriminate between performance and non-performance (Table 8).

The discriminant function from table 9 is

 $L = -7.427 - 0.565 \, X_1 + 0.793 \, X_2 + 0.519 \, X_3 - 0.810 \, X_4 + 0.990 \, X \, x_5 + 0.727 \, X_6 - 0.075 \, X_7 + 0.050 \, X_8 + 0.024 \, X_9 - 0.104 \, X_{10} + 0.463 \, X_{11}$ 

		Function
$X_1 =$	Management Role/Responsibility	565
$X_2 =$	Interpersonal skills	.793
X <sub>3</sub> =	The human resources skills	.519
$X_4 =$	Strategic management factors	810
$X_{5} =$	Finances/Capitalization factors	.990
$X_{6} =$	Marketing management factors	.727
$\mathbf{X}_7 =$	Entrepreneurial management factors	075
$X_8 =$	Technological factors	.050
$\mathbf{X}_9 =$	Macroeconomic environment factors	.024
$X_{10} =$	Regulation and policy issues	104
$X_{11} =$	Incentive policies	.463
	(Constant)	-7.427

#### **Table 9: Canonical Discriminant Function Coefficients**

The centroid for performance is -1.149 and or non performance is 0.068. The difference is 1.217 which is satisfactory. Hence less classification errors. The cut off point of the weighted mean will be equal to:

[9(0.056) + 153 (0.944) / 162 = 89.47%. The hit ratio is 93.2%. By chance 89.47% of the cases will be correctly classified. This suggests that the discriminant function has a good predictive ability.

Table 10: Cross validation for Performance/ Non-Performances						
Darformanaa	non norforma	nao2 · 2005 2004	Predicted Gro	Predicted Group Membership		
Fertormance/non-performance2 : 2003-2004		Performance	non-performance	Total		
	Count	Performance	0	9	9	
Original	Count	Non-performance	2	151	153	
	%	Performance	.0	100.0	100.0	
		Non-performance	1.3	98.7	100.0	
Cross-validated(a)	Count	Performance	0	9	9	
		Non-performance	2	151	153	
	0/	Performance	.0	100.0	100.0	
	<sup>%0</sup> Non-j	Non-performance	1.3	98.7	100.0	

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The model is correct more than 9 times out 10 or over 90%.

#### b) Analysed separately for each business category (Micro, Small and medium)

The Second set of analysis was where the business categories were separated. The table 11 summarises all the findings.

Table 11: Summary of Discrinant Results				
Dependent variable	Discriminant function	Expected percentage	Hit ratio	Comment
prchang1new (Performance/Non-perform ance1: 2006-2005)	$\begin{array}{l} L \!=\! -5.020 - \! 0.182 X_1 \! - \! 0.164 X_2 \! - \\ 0.433 X_3 \! + \! 0.185 X_4 \! - \! 0.115 X_5 \! + \\ 1.116 X_6 \! + \! 0.198 X_7 \! + \! 0.293 X_8 \! - \\ 0.483 X_9 \! - \! 0.023 X_{10} \! + \! 0.0299 X_{11} \! + \\ 0.744 X_{12} \end{array}$	84.96 %.	92.2 %,	The model is correct more than 9 times.
Dependent Variable: prchang2new Performance/Nonperforma nce2: 2005-2004)	$\begin{array}{l} L=-7.427-0.565X_{1}+0.793X_{2}+\\ 0.519X_{3}-0.810X_{4}+0.990X_{5}+\\ 0.727\ X_{6}-0.075X_{7}+0.050X_{8}+\\ 0.024X_{9}-0.104X_{10}+0.363X_{11} \end{array}$	93.2%.	89.47%	The model is correct more than 9 times out 10 or over 90%.
Category of business venture in terms of employees = micro:1-9	$\begin{split} L &= 5.712 - 0.458X_1 + 0.048X_2 - \\ &0.607X_3 - 0.912X_4 + 1.150X_5 + \\ &1.195X_6 + 0.888X_7 - 0.041X_8 - \\ &0.178X_9 + 0.280X_{10} - 0.512X_{11} - \\ &0.741X_{12} \end{split}$	89.3%	80%.	The model is correct over 80% of the times.
Category of business venture in terms of employees = medium:50-99	$\begin{array}{l} L \!=\! -4.819 x_1 + 0.852 x_2 - 0.679 x_3 + \\ 0.044 x_4 + 2.082 x_4 - 2.292 x_5 + \\ 0.120 x_6 + 0.189 x_7 + 0.175 x_8 - \\ 0.056 x_9 + 0.435 x_{10} + 0.288 x_{11} + \\ 0.115 x_{12} \end{array}$	89.2%	71.89%.	A predictive ability of over 70%.
prchang2new (Performance/no n-performance1 : 2005-2004)	$\begin{array}{l} L = -6.378 - 0.748 x_1 + 0.218 x_2 - \\ 0.021 x_3 - 0.348 x_4 + 1.610 x_5 + \\ 1.346 x_6 - 0.534 x_7 - 0.156 x_8 + 0.85 x_9 \\ + 0.488 x_{10} - 0.28 x_{11} \end{array}$	91.7%,	84.06%.	The model has a good predictive ability.
Category of business venture in terms of employees = small:10-49	$\begin{array}{l} L = -5.782 - 0.073x_1 + 0.906x_2 + \\ 0.995x_3 - 1.256x_4 - 0.565x_5 - \\ 1.992x_6 + 0.595x_7 - 0.800x_8 + \\ 1.977x_9 + 0.449x_{10} + 1.149x_{11} \end{array}$	97.8 % and	91.7 %.	Overall, the model is over 90% correct.

Table 11: above indicates that for the Micro enterprises, factors whose beta values are highest are marketing management strategies (1.195), fiancé/capitalization strategies (1.150), and entrepreneurship management strategies (0.888). The strategic management factors (-0.912), the human resources (-0.607) and institutional policies (0.741) are negative.

Within the small businesses, macro environmental factors (1.977), incentives (1.149) and human resource strategies (0.995) were the highest positive factors while, marketing management strategies (-1.992) and strategic management factors (-1.256) are the highest factors from the discriminant function.

The medium enterprises test indicates that the highest positive influence is from the marketing management strategies (1.346), Regulation and policy issues (0.488). The negative effects are the management roles/responsibilities (-0.748) and entrepreneurship management strategies (-0.534). The effect on the profitability tested on the combined categories indicated that marketing management, finance /capitalization, interpersonal and strategic management factors affected profitability most.

# 4. DISCUSSION AND CONCLUSION

The relationships of the strategies were investigated, the interrelationships as well as integrations and several models produced. From the models, it is noted that some strategies do contribute more to the performance of the enterprise. Some strategies combined with other strategies actually gave a negative contribution. This implies that the different combinations of strategies and other inputs need to be at a certain level to produce optimum performance. The results of this research are based on survey covering the manufacturing and services sector, which is the largest sector of MSMEs in Kenya. These results can therefore, be generalized though this must apply to those enterprises with similar characteristics as those sampled.

# **5. RECOMMENDATION**

Having noted that that some strategies are more effective when employed together and that some other strategies are affected by the size of the enterprise, it is recommended that for optimum performance, the managers or owners must strive to learn and combine the strategies correctly. The micro environment factors were found to really affect the integration strategies in Small enterprises. The marketing management strategies were key in micro and medium enterprises. The policy makers must note the disparities and come up with protection for small businesses from the harsh external environments.

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<sup>(</sup>http://www2.chass.ncsu.edu/garson/pa765/discrim.htm June 2008)