Human Resource Management Practices and Firm Effectiveness of Consumer Goods Manufacturing Firms In Kenya

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Abstract : *Manufacturing sector is salient to the Kenyan economy, with a total workforce of 13% in the formal sector and 1.4 million labour-force in the informal sector. Despite the significance, its contribution to the regional market is low at 7% export and GDP remains stagnant at 10% since 1960s. This has raised the concerns about Kenyan manufacturing sector's performance in relation to effectiveness. Previous studies in Kenya have focused on strategic human resource management practices and firm performance. While the HRM practices - firm effectiveness relationship is key to the growth of any sector, no research has been undertaken in consumer goods manufacturing firms in Kenya. The main objective was to establish the HRM practices - Effectiveness relationship in consumer goods manufacturing firms in Kenya. Drawing from Resource Based theory, it was conceptualized that the independent and dependent variables are HRM practices; and firm effectiveness respectively. A cross sectional survey design and population of 65 firms were used. It was a census study with response at 76.9%. The results revealed that there is significant association between HRM practices and firm effectiveness with most significant association being on material incentives and firm effectiveness with R^2 of 66.9% (β=.303, $p<0.01$), indicating that material incentives account for 30.3% of variance in effectiveness. R^2 increase was 46.2% (β=.509, $p<0.01$) implying a unit rise in HR practices enhances firm effectiveness increase with HRM practices by .509. Conclusions are that among the firms, HRM practices predict firm effectiveness. It is recommended that the firms' efforts should be directed on HRM practices in order to enhance firm effectiveness. Contrary to prior research, this study has revealed that HRM practices, affect firm effectiveness. Other performance indicators and designs may be considered in future.*

Key words: *Human resource management practices; and firm effectiveness; medium and* large manufacturing firms; core activities - production and marketing of edible oils; soaps and detergents; beverages or sugar; Kenya; Dr. Bulitia

INTRODUCTION

1.1 Background of the Study

1.1.1 Concept of Human Resource Management practices, and Firm Effectiveness

Human Resource Management (HRM) practices are activities undertaken by an organization in managing pool of human resource that will in turn give organization competitive edge. This definition concurs with Schuler & Jackson (1987), who defines HRM practices as, the organizational activities directed at managing the pool of human resource and ensuring that the resources are employed towards the fulfillment of organizational goals. Appelbaum (2001), too defines HRM practices as, the management of people within the internal environment of organizations, comprises the activities, policies, and practices involved in planning, obtaining, developing, utilizing, evaluating, maintaining, and retaining the appropriate numbers and skill mix of employees to achieve the organization's objectives. Competitive advantage with respect to HRM practices encompasses those capabilities, resources, relationships, and decisions that permit a firm to capitalize on opportunities and avoid threats within its industry. However the question remains, including whether HRM practices guarantees positive firm effectiveness outcome. Further, the limited research in HRM in emerging economies has not supported illumination of this concept of HRM practices or its firm effectiveness consequences.

Firm Performance is measured in various ways, which include profitability ratios such as earnings

per share, return on investment or return on equity (Drury, 2000). According to Truss (2008), determinants of organizational performance include but are not limited to; culture, Zahra *et al* (1990) and market orientation (Narver and Slater, 1990; Noble *et al*, 2002). With the disparate determinants, Abas and Yaacob (2006) claim that a single performance measure is inadequate to represent overall firm performance. Appropriate firm performance dimensions spawn effectiveness, effectiveness and adaptability (Walker and Ruekert, 1987). Tangen (2002) posit that measurement should be based on a limited number of measures that consist of financial and non – financial parameters. Pearce *et al* (1987) reported that empirical research reveals that actual and perceived measures of performance are strongly correlated. However, a major part of literature has tended to limit itself to considering only financial aspects of performance, ignoring other outputs such as effectiveness which is a major focus of this study.

1.1.2 The relationship between Human Resource Management Practices and Firm Effectiveness

Huselid's (1995) groundbreaking study demonstrated that a set of HRM practices he referred to as high performance work systems (HPWS) were related to turnover, accounting profits, and firm market value. Since then, a number of studies have shown similar positive relationships between HRM practices and various measures of firm performance. For instance, MacDuffie (1995) found that "bundles" of HRM practices were related to productivity and quality in his sample of worldwide auto assembly plants. Delery and Doty (1996) found significant relationships between HRM practices and accounting profits among a sample of banks. Youndt, Snell, Dean, and Lepak (1996) found that among their sample of manufacturing firms, certain combinations of HRM practices were related to operational performance indicators. Likewise Guthrie (2001) surveyed corporations in New Zealand and found that their HRM practices were related to turnover and profitability. This vein of research has been summarized by Huselid and Becker who stated that based on four national surveys and observations on more than 2,000 firms, the judgment is that the effect of a one standard deviation change in the HRM system is 10– 20% of a firm's market value (Huselid & Becker, 2000). Whereas studies have been done on HRM practices and firm performance, no research has tested the hypothesis that employing progressive HRM practices specifically employee training, material incentives, non-material incentives and

performance appraisal enhances firm effectiveness in a causal sense.

1.1.3 Manufacturing Firms in Kenya

Since independence, the Kenyan economy has remained predominantly agriculture, with industrialization taking an integral part of the country's development strategies. The industrial sector's share of monetary GDP has continued to be about 15-16% while that of manufacturing sector has stagnated at a little more than 10% over the last two decades. Manufacturing activities account for the greatest share of industrial production output and form the core of industry. Manufacturing sector makes an important contribution to the Kenyan economy and currently employs 275,800 people, which represents 13 per cent of total employment with an additional 1.4 million people employed in the informal side of the industry (Economic Survey 2012, National Development Plan 2002-2008, KAM, 2012: Central Bank of Kenya, 2008). The sector is mainly agro-based and characterized by relatively low value addition, employment, and capacity utilization and export volumes partly due to weak linkages to other sectors. To imply lack of embracing Human Resource Management Practices, and proper firm effectiveness by other sub sectors.

Locally manufactured goods comprise 25 percent of Kenya's exports. However, the share of Kenyan products in the regional market is only seven per cent of the Kshs. 968 billion regional market. The Eastern African market is dominated by imports from outside the region (Kenya Competitiveness Benchmark Report 2008). This is an indication that there is a large potential to improve Kenya's competitiveness in the region by replacing external suppliers gradually.

In terms of sector concentration, large companies in Kenya account for a large proportion of manufacturing sectors output and employment for instance Hazlewood (1979) found that large manufacturing firms comprised only 22% of the firms but contributed over 80% of the total manufacturing surplus. In this study, the researcher distinguishes ownership as either multinational or indigenous and in many cases makes a comparative analysis along these two dimensions of ownership.

The desire to carryon this study was enhanced by the observations released by Central Bureau of Statistics 2012. The statistics revealed manufacturing sector's performance being on

decline with value added (Ksh. million) of 205.7, 202.1, 199.6, 198.3 and 190.5 in the year 2003, 2004, 2005, 2006 and 2007 respectively and its contribution to the GDP being stagnant at 10 percent since the 1960s. This has as a result led to the limited local and Foreign Direct investment (FDI) in the country and the high outflow of investment to the neighboring countries. In response to this pressure, the Government initiated several reforms and policies aimed at spurring growth and development of a vibrant manufacturing sector by 2030. Consequently Consumer goods manufacturing firms which are viewed as major source of livelihoods in Kenya seem to have given little impetus to improvement of livelihood both in Kenya and East Africa. Whereas studies have been carried out on relationship between strategic HRM practices and firm performance in manufacturing firms in Kenya, no studies have established the HRM practices for enhancement of firm effectiveness in consumer goods manufacturing firms in Kenya.

1.2 Statement of the Problem

Manufacturing sector is important to the Kenyan economy, employing 13% of total workforce in the formal sector and 1.4 million people in the informal sector. Despite the importance, its contribution to the regional market is low at 7% export and GDP remains stagnant at 10% since 1960s. This has raised the concerns about Kenyan manufacturing sector's performance in relation to effectiveness. In response to this pressure, the Government initiated several reforms and policies aimed at spurring growth and development of a vibrant manufacturing sector by 2030. However, implementation of the policies and formulation of new policies in consumer goods manufacturing firms sub sector has been constraint by inappropriate adoption human resource management (HRM) practices. Consequently Consumer goods manufacturing firms which are viewed as major source of livelihoods in Kenya seem to have given little impetus to improvement of livelihood both in Kenya and East Africa. Whereas studies have been conducted on Human Resource Management (HRM) practices and firm performance in manufacturing context in Kenya, no research has been undertaken on the HRM practices – firm effectiveness relationship among the consumer goods manufacturing firms in Kenya. It is in view of these that this study has focused on the effect the HRM practices – firm effectiveness relationship.

1.3 Objective of the study

To establish the relationship between Human Resource Management practices and Firm effectiveness in consumer goods manufacturing firms in Kenya.

1.4 Hypotheses

The following hypotheses have been derived from the conceptual framework and research objectives;

> **$H1_0$:** There is no relationship between human resource management practices and firm effectiveness

1.5 Conceptual Framework

The independent variable is human resource management practices measured by employee training, material incentives, outcome appraisal, non-material incentives and process appraisal. The dependent variable is firm effectiveness.
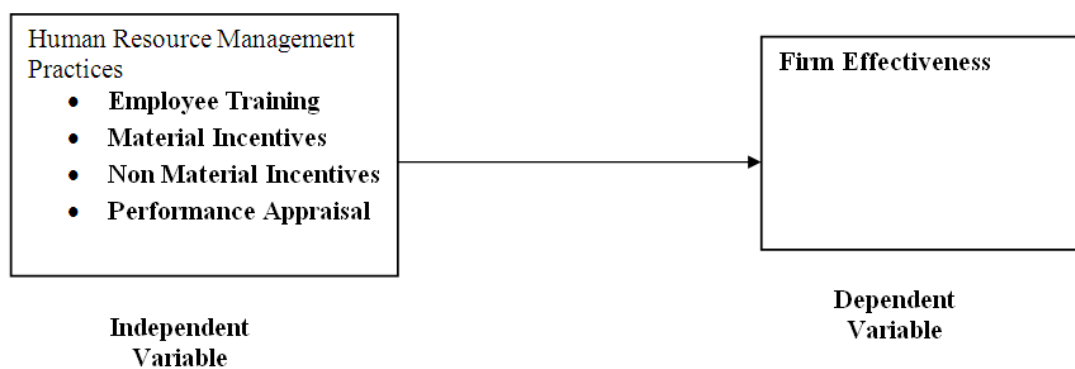
Figure 1.1: Conceptual framework on the HRM practices and firm effectiveness of manufacturing consumer goods firms in Kenya

Source: Self Conceptualization, 2016

<div style="text-align:center">RESEARCH METHODOLOGY</div>

3.0 Introduction

This section discusses the research design for the study, target population, the data collection method and the data analysis method.

3.1 Research design

The study was based on positivists approach (Positivism – paradigm). Positivism is associated with quantitative research and involves hypothesis testing to obtain "objective" truth that can be used to predict what may happen at a future date (Rossman & Rollis, 2003). Based on the approach, the study adopted cross-sectional survey research design to obtain the empirical data to address the objectives of the study. A cross-sectional survey was deemed appropriate for the study because it enables the researcher to collect data and make inferences about a population of interest at one point in time. Cross-sectional surveys have been described as snapshots of the populations about which they gather data. Cross-sectional surveys can be conducted using any mode of data collection, including interviews and mailed or self-administered questionnaires. Furthermore, this research design is appropriate approach where the aim of the study is to determine the existence and extent of a problem (Nachmias & Nachmias 2008). This design also ensures that each respondent filled in only one questionnaire during the data collection period without filling the questionnaires at some other time in the future. Thus the responses obtained were only applied for the period under study.

3.2 Study Area

The study was conducted in Kenya. The geographical area of Kenya covered in the study was obtained from the Nation Business Directory (2012), Kenya Association of Manufacturers Directory (2012), Kenya Industrial Research Institute (KIRDI), and the Yellow Pages of the Telephone Directory (2012). This study area was chosen because it enabled the researcher to gather sufficient data within reasonable time and also essential for obtaining respondents from medium and large manufacturing consumer goods firms, a characteristic which was key for this study. Most previous studies on manufacturing industry have been focusing on large firms classifying them under three main sectors, namely, the agro-based industrial sector, engineering and construction industrial sector and the chemical and mineral industrial sector. This study sought to focus on specifically the medium and large manufacturing consumer goods firms. The study area chosen conveniently met the requirements of the study.

3.3 Population and sampling size of the Study

The population of the study comprised medium and large multinational and indigenous manufacturing consumer goods firms in Kenya. This included all manufacturing of consumer goods firms in the selected industries in all major towns in Kenya totaling to 65 firms after excluding 3 firms used in pretesting stage.

Table 3.1: Total number of medium and large manufacturing of consumer goods firms in Kenya

Description	Total No. of Firms
Medium and Large Manufacturing Consumer goods firms in Kenya	68
Firms used in Pretesting	3
Firms targeted	65
Firms Responded	50

 Source: Survey data 2013

3.4 Sampling size and sampling techniques

The Sampling size is a list of potential members of the target population to be included in the sample (Mugenda and Mugenda, 1999). It is a list of elements from which a sample is drawn (Cooper and Schindler, 2001). In this study, the sample size consisted of all the 65 medium and large manufacturing consumer goods firms in Kenya. This sample size was selected using census sampling techniques. This technique was chosen because the units of study were not too many and the manufacturing consumer goods firms are concentrated in major cities and towns in Kenya and, therefore, accessible, and not prohibitive in terms of cost, time and other resources (Saunders *et al.,* 2007). Furthermore, a census survey is suited to development of a broad industry-based understanding for studying the hitherto enigmatic problems of the Kenyan manufacturing consumer goods firms. The sampling size was developed from firms registered in the Nation Business Directory (2012), Kenya Association of Manufacturers Directory (2012), Kenya Industrial Research Institute (KIRDI), and the Yellow Pages of the Telephone Directory (2012). All these Directories were relied on since there was no single

directory that seemed to provide a listing of all relevant firms. Among the three directories, the Nation Business Directory was the most comprehensive. Three Directories of the manufacturing consumer goods firms were considered. These were; firms dealing with processing sugar, edible oils, soaps and detergents and those firms that dealt with beverages (both alcoholic and non alcoholic). Studies involving whole populations of firms are common, especially where only a specific firm category is being studied (Weguko, 1984; and Mulaki, 2000). Aosa (1992) used a more or less similar approach in which his sample was made up of firms that he approached and were willing to participate. He went ahead to study all the 84 firms that were willing to participate.

3.5 Data Collection

3.5.1 Sources of data

Primary data was collected using a self-administered questionnaire on the HRM practices, and firm effectiveness. Primary data were sought for due to their proximity to the truth and control over error, (Copper & Schindler, 2003). Secondary data from existing company and government records were also reviewed and utilized in this study.

3.5.2 Data Collection Procedure

The questionnaire was administered following the total design method Dillman, (2000) with pre-notification correspondence and a personal hand delivered survey with the help of three research assistants. Initially, the interviewer sought appointments with respondents through telephone with little success. In order to enhance response rate and response quality, the researcher and research assistant personally delivered the questionnaires. This procedure was preferred due to the geographical dispersal of the units of study, being scattered throughout the country. The approach also helped in securing appointments for return visits because in most cases the correspondents were either busy or away from office. It was indeed rare to find all three respondents on site. To ensure that the respondents were familiar with the research issues, the respondents were purposively sampled. The literature has long maintained that the Chief Executive Officer (C.E.O) should be the single respondent in such studies as they are considered to posses the most overall understanding and knowledge of the firm's operations and performance, (Byars, 1984; Eelbana & Child,

2007). Bowman & Ambrosini (1997) and other critics, nevertheless, assert that reliance on single despondent can increase the possibility of common method variance. Consistent with such researchers' suggestions to use multiple respondents, and to limit measurement error, this study targeted top management team members considered key informants in matters of firm performance and strategy: The Chief Executive Officer, the Chief Production Manager, the Chief Marketing Manager and the Chief Human Resource Manager. Furthermore the upper echelons theory posits that an organization's performance is largely shaped by the perceptions and opinions of key informants and also that such key informants are the most knowledgeable regarding overall firm effectiveness and HRM practices planning (Valenti *et al.,* 2011). The participants were assured of confidentiality and anonymity of responses and were in addition, promised a copy of the research report as incentive. Since the data analysis was at firm level, the responses were aggregated to provide a more accurate representation of the firm. A total of 65 copies of the questionnaires were delivered. Out of these 50 were successfully administered representing a response rate of 76.9%. This was well above the 25% reported in management research in emerging economy context, (Rettab *et al.,* 2008).

3.5.3 Instrument for data Collection

The questionnaire was developed and categorized in such a way that every study objective was addressed, by ensuring that there were specific questions addressing each objective. It was divided into six (6) sections, each capturing specific aspects of the study. Likert – type statements anchored on a five – point scale ranging from strongly disagree (1) to strongly agree (5) was used to capture specific indicators for each objective. The Likert – type scale is widely used in many social science studies. For instance, Andy and Lockett (2003) used a five point scale and got the mean and standard deviations for each indicator. Similarly, Zou & Tamer (2002) used a seven point scale in their study. In this study, a five point scale was used as it was seen to be sufficient to provide clear distinctions between the points, which made it unnecessary to use higher scales.

3.5.4 Reliability Test(s) for Data Collection Instrument

Kothari (2004), stresses that reliability of an instrument can be assessed by asking such questions as who collected the data, the sources of the data and whether proper methods were used. Reliability refers to the extent to which an

experiment, test, or any measuring procedure yields the same result on repeated trials. Reliability of a measure thus indicates its stability and consistency (Sekran, 2000). Instrument stability is usually assessed using the test retest procedure whilst the most prevalent method for measuring reliability of self administered survey questionnaires involves estimating internal consistency. In the case of a test retest procedure, a test is administered twice to the same respondents with some time lag in between. If repeated administration of the instrument shows consistent results, the instrument is deemed reliable (Carmines & Zellar, 1979). For this study, stability was not assessed since it was not feasible to administer a second instrument to the same study respondents. Previous research sites difficulty in assessing stability using the test retest procedure when targeting a respondent pool consisting of C.E.O's and other senior managers, Whisman & McClelland (2005).

When the instrument consistency is assessed the focus is an inter-item correlation or internal consistency. The fundamental assumption underline internal consistency is that items are all slightly different measures of the same concept Nunnally (1978) and therefore the inter-correlation between items will be high. In this regard, Cronbach's coefficient alpha is commonly used as a measure of internal consistency. The value of coefficient alpha ranges from zero (no internal consistency) to one (complete internal consistency) (Cronbach,1951). The Cronbach alpha coefficient threshold is regarded as 0.6, (Hair *et al.,* 1998). Moreover, Carmines & Zellner (1979) indicate that Cronbach's alpha is a superior measure of internal consistency than test retest or split halves approaches. Although the constructs developed in this study were measured primarily on previously validated measurement items and strongly grounded in the literature, they were modified somewhat to suit the Kenyan context.

3.5.5 Validity Test (s) for Data Collection Instrument

Instrument validation was done in several ways which included content analysis in which each item of the instrument were carefully analyzed and checked to ensure that it conveyed the necessary message. The validity of a measure is defined as the extent to which a construct or a set of measures correctly represents the concept of study, and the degree to which it is free from any systematic or non-random error (Nunally, 1978). It is widely held that establishing the reliability of a measurement scale should precede an assessment of its dimensionality because the presence of unreliable measurement items enhances a scale's

lack of uni-dimensionality (Cortina, 1993). In this regard reliability is, therefore, a necessary condition for validity (Peter, 1981; Peter & Churchill, 1986). The foregoing section has reported the positive results of reliability analysis. Researchers also assert that no single statistic offers a general index of validity of the measurements made. Consequently, three basic types of validity have been proposed (Sekaran, 2000): content validity (wether the measure adequately measure the concept), construct validity (measures whether the instrument tap the concept as theorized) and convergent validity (tests whether two instruments measuring the concept correlate highly).

3.5.5.1 Content Validity

A measure has content validity if there is a general agreement among the subjects and researchers that the instrument has measurement items that cover all aspects of the variable being measured. This form of validity, also known as face validity, subjectively assesses the correspondence between the individual items and the concept through ratings by expert judges. The objective of the content validity is to ensure that the selection of construct items extends past empirical issues to include theoretical and practical considerations (Robinson *et al.,* 1991).

For the HRM practices construct, the literature depicts a vast corpus propositioning conceptual frameworks. The pool of items generated from this exercise that were deemed to represent the underlying dimensions of the HRM practices variable were given to an expert panel of five academics drawn from the fields of human resource management, strategic management, information technology and marketing. These experts expressed their degree of agreement/disagreement with the use of the different items on a Likert scale of five points. This process yielded 15 items to represent HRM practices scale. The measurement scale used in this study is the Dixon, *et al.* (2001) scale, preferred in the literature because of its multi item nature which is deemed to adequately cover the underlining theoretical dimensions. Lastly, the literature revealed that firm effectiveness is best measured by multi item scales. The instrument used in this scale is adopted from Dess & Robinson (1984) which has been used successfully in previous studies (Allen & Gell, 2000; Allen & Kilmann 2001).

In summary the process produced an instrument: 11 items for measuring HRM practices; 2 for measuring HRM practices and 9 items for measuring firm effectiveness. In an interactive manner the expert panel revised the questions and

response options until all evaluators conquered that each question and each response option fairly reflect accurately the requisite underlying dimension for each construct. Moreover the pretext subject indicated that the content of each construct was well represented by the measurement items employed.

3.5.5.2 Construct Validity

Construct validity refers to the degree to which a measurement scale assesses the theoretical construct it purports to assess (Nunally, 1978). Support of construct validity can be gleaned from several sources of different methodological approaches, Cronbach (1951), Cronbach & Meehl (1955). Since this research sought to operationalize the study constructs, as multi-item measurement scales, an assessment of the dimensionality of the measurement scales should, therefore, indicate evidence of construct validity. It is widely held that the application of factor analysis is crucial in providing evidence of the dimensionality of multi-item measurement scales (Carmines & Zeller, 1979; DeVellis, 1991; Nunnally, 1978). Factor analysis seeks to summarize the information contained in a number of original variables into a smaller set of compact dimensions or constructs with minimum loss of information on original variables (Hair *et al.,* 2006).

The two prevalent forms of factor analysis are the exploratory factor analysis (EFA) and confirmatory factor analysis (CFA). EFA seeks to uncover the underlying structure of a relatively large set of variables, and to establish links when the observed and latent variables are unknown or uncertain, (Byrne, 1998). It is also the most common form of factor analysis and is used when there is no prior theory. In this procedure the factor loadings are used intuit the factor structure of the data and, in this manner, assists to determine unidimensionality of constructs is assessed. CFA, on the other hand, is used to test or confirm the relationship between the factors and the latent variables on the basis of pre-established theory.

With HRM practices posited to be at embryonic stage, CFA is not appropriate for developing this constructs (Ahire *et al.,* 1996) and, therefore, EFA was better suited for construct validation. In this study, EFA was performed using principle components analysis (PCA) to identify constructs, and subsequently for each construct separately. According to Hair *et al.* (2006), factor loadings greater than 0.30 are considered to meet the minimal level; loadings of 0.40 are considered more important; if the loadings are 0.50 or greater, then they are considered highly significant. A principle factor analysis loading of 0.50 was used

as the cut-off point in this study. In this study, the method of Principal Components Analysis (PCA) using SPSS Version 16 was applied to the same data used in the assessment of internal consistency reliability. The use of this technique also allowed for the factors to be treated as uncorrelated variables in order to satisfy multi-collinearity assumptions (Punj & Stewart, 1983).

The instrument was divided into several sections to ensure that each section reflect material for the specific objective. Validation also involved thorough examination by research experts from Maseno University. This involved several presentations to colleagues and Doctoral Programme resource persons of the School of Business and Economics, and guidance from the researcher's supervisors.

A pre- test was done by administering the instrument to three conveniently selected managers to fill, without disclosing to them that this is not the final research. The managers were also asked to evaluate the statements for relevance and whether they were meaningful and clear, loaded or offensive. This approach of pre-testing a questionnaire was successfully used by Dixon, *et'al* (2001) in testing for validity and reliability of their questionnaire. On the basis of the responses, the instrument was adjusted appropriately before embarking on the data collection exercise.

3.5.5.3 Convergent and Discriminant Validity

Convergence means that evidence from different sources corroborate meaning of a construct, whereas discriminability means that one can differentiate the construct that may be similar (Kerlinger, 1996). Campbell and Fiske (1959) suggested the multitrait-multimethod matrix technique, essentially a correlation of matrices, to assess the dual concepts of convergent-discriminant validity. In this method, those correlation coefficients among scores for a given property measured by different instruments should be higher than correlation coefficients among scores for different properties measured by similar instruments. The multitrait matrix provides additional evidence of construct dimensionality. In order to demonstrate that the dimensions are distinct the correlation coefficient with a column should be less than the coefficient alphas found in the diagonal (Churchil, 1979). In this study the internal reliability is much higher than inter item reliability. The correlation coefficients range upto 0.58 and many of the pairs of variables are significantly correlated. The Cronbach alphas range between 0.62 and 0.96. These analysis shows strong evidence of discriminant validity since the Cronbach's alphas exceed the inter-item correlation

in all cases based on the exploratory factor analysis and multi trait matrix, there is strong empirical support for discriminant validity. These studies salutary contribution is the validation of Conant *et al.,*(1990) scale in an emerging economy context in an African and a Kenyan business environment.

3.5.6 Testing the assumptions for linear regression analyses

This study employed linear regression analysis in the analysis of data. Therefore it was essential to establish that the assumptions of linear regression were not violated. The need to identify any violations of the underlying assumptions of linear is emphasized in reasearch Hair *et. al.,* (1998). The assumptions which are considered necessary if conclusions can be drawn about a population on the basis of a regression analysis done on sample data includes, type of variables, homoskedasticity, linearity, normality of residuals and multicollinearity (Field, 2000). These assumptions are considered in the following subsection.

3.6 Data Analysis

Data was analyzed by use of descriptive statistics, correlation and regression analysis. Descriptive Statistics helped the researcher to discover miscoded values, missing data and other problems in the data set, (Cooper and Schindler, 2003). It also made it easier for the researcher to organize, summarize, interpret and communicate quantitative information obtained from the study, (Mutai, 2001). Pearson correlation analysis was conducted to determine the direction, strength and significance of the bivariate relationship between human resource management practices and firm performance. A high r value denoted a very strong and significant correlation, thereby implying a very strong relationship. Regression analysis was used to determine the effect of HRM practices on firm effectiveness (Hekkert, *et'al,* 2007). Researchers have posited that regression analysis is the most general and conservative method for testing contingency hypothesis in which interaction exists (Ojera, 2011; Aguinis, 2004; Aiken & West, 1991; Cohen & Cohen, 1983; Jaccard, *et'al.,* 1990; Dowling & Mc Gee, 1994, Covin & Slein, 1989).

The analysis techniques were appropriately chosen to suit the requirements of each objective. The objective of the study which sought to establish the relationship between HRM practices and firm effectiveness in the study area was analyzed by use of correlation and simple bi-variate regression analysis.

The resulting regression models may be expressed as follows;

$$Y_i = a + \beta_1 X_i + \varepsilon \qquad \text{Model 1}$$

Where Y is the dependent variable (firm effectiveness), X is the theoretically defined independent variable (Human Resource Management practices), $Y_{i\ (where\ i=1-65)}$ are the firms, while β_1 (*where $_1$* = 1-4) are the regression coefficients, X_i (*where $_i$* = 1-4) are the HRM practices indicators (Employee training, material incentives, non-material incentives and performance appraisal), and ε is the error term corresponding to each model.

Where

$_i$ - 1th firm

$_i$ - 1- 65

Y - Firm Effectiveness

a_1 - Constant

b_1 b_2 b_3 - Coefficients

X_i - Human Resource Management Practices

ε - Error Term

The coefficient of determination (r^2 value) is a measure of the degree of variability in the dependent variable, in this case firm effectiveness attributable to predictor variables namely: the configurationally aspect of human resource management practices. In the model the *β*eta coefficient (*β* value) estimates the degree of change in competitive advantage resulting from each unit change in human resource management practices.

3.7 Data Presentation

The data obtained from the questionnaire was summarized using descriptive statistics such as mean, standard deviation, frequencies and percentages. After screening of data, summarized frequencies were produced to give measures of central tendencies which include simple means. Other statistical presentations included frequency distributions and proportions such as percentage (%). The analyzed data was presented using Tables. Qualitative data was summarized and categorized according to common themes and presented in frequency distribution Tables.

RESULTS AND DISCUSION

4.1 Introduction

Data is analyzed, presented and discussed in this chapter. Both descriptive and inferential statistics were used in the analysis. The researcher followed the four phases normally used in many research projects, namely data clean up, data reduction, data differentiation, and explanation. Data clean up involved editing, coding and tabulation of the findings. This helped in detection of any anomalies in the responses, and in assigning specific numerical values to the responses for further analysis. The main techniques of data analysis used in this study are descriptive statistics, correlation and regression analysis and factor analysis.

Results of the Study

4.1   Firm Performance

Organizational performance deals with how well a firm is able to meet its objectives. It is known that the ultimate goal of any business organization is to be able to achieve specific objectives such as profit maximization, cost effectiveness and customer satisfaction. A firm that is able to achieve these objectives is perceived as being more successful than one that is not able to meet the objectives hence the measurement of organizational performance is synonymous with measurement of success in the organization.

There are many ways of measuring performance, which include profitability such as return on investment, return on equity or earnings per share. However, in many cases performance is not just about profits, and in most cases a successful firm may not necessarily be making profits at a particular point in time, depending on the purpose for which performance is measured. Organizational performance was measured by effectiveness. This is one among the many indicators of performance as suggested by Lusthaus et 'al. (2000).

4.1.2 Effectiveness

For effectiveness, the key indicators of measure included frequency of machine breakdowns, rate of staff turnover, and so on. A firm cannot be efficient if it is always experiencing machine breakdowns, or if it has very high staff turnover.

From the study findings, 6% of the firms experienced machine breakdowns 'most of the times', while 10% of the firms never experienced machine breakdowns. Further, 42% 'sometimes' experienced machine breakdowns while 42% rarely experienced breakdowns. This showed that firms were doing fairly well in managing their machinery, and hence enhancing their effectiveness . It was found that 38% of the multinational firms experienced machine breakdowns 'sometimes', and 34% said that they 'rarely' experienced breakdowns. Only 4% of indigenous firms said that they 'sometimes' got machine breakdown while 8% said they 'rarely' got machine breakdown as shown in Table 4.20. This shows that multinational firms are more efficient in terms of managing their machinery and equipment than the indigenous firms. Table 4.20 shows the results.

Table 4.20: Frequency of Machine Breakdown

Experience of major machine breakdown		Firm category		Total
		Indigenous	multinational	
	most times		6.0%	6.0%
	some times	4.0%	38.0%	42.0%
	Rarely	8.0%	34.0%	42.0%
	Never	6.0%	4.0%	10.0%
Total		18.0%	82.0%	100.0%

Source: Survey data (2016)

The results in Table 4.21 show that 36% of the firms experienced 'moderate' to 'very high' rate of staff turnover, while 64% of the firms experienced 'low' to 'very low' rates of staff turnover. The current study found that indigenous firms experience a higher level of staff turnover of 16% than multinational firms which had 2%. This may be due to higher wage rates paid by the multinational. In fact 24% of multinational firms reported that they experienced very low levels of staff turnover. Other relevant indicators of effectiveness are presented in Table 4.22.

Table 4.21: Rate of Staff Turnover

Rate of staff turnover		Firm category		Total
		indigenous	multinational	
	very high	4.0%		4.0%
	High	12.0%	2.0%	14.0%
	Moderate	2.0%	16.0%	18.0%
	Low		40.0%	40.0%
	very low		24.0%	24.0%
Total		18.0%	82.0%	100.0%

Source: Survey data (2016)

The results in Table 4.22 shows that making best use of all staff to the best of their ability was indicated as the most important measure of effectiveness , with a mean score of 4.12 and standard error of 0.062. Providing for good value for cost and making best use of financial resources, with a mean score of 4.10 and 4.08 respectively, and making sure all broken machines are repaired on time (3.94) are all important indicators of effectiveness.

Table 4.22: Mean Scores for Common Indicators of Effectiveness

Indicators of Effectiveness	N	Mean		Std. Deviation
			Std. Error	
make best use of resources	50	4.08	.048	.340
administration provide good value for cost	50	4.10	.043	.303
make best use of all staff to the best of their ability	50	4.12	.062	.435
all broken machines are repaired on time	50	3.94	.072	.512
experiencing of no stock out as a result of machine brake down	50	3.54	.104	.734
operation machine are continuously serviced	50	3.78	.119	.840
Grand Totals	50	23.56	.448	3.164

Source: Survey data (2016)

4.2 Hypothesis Testing and Operational Models

This part presents the testing of the various hypotheses advanced in chapter two. It involves use regression analysis. Initial analysis involved computations of measures of central tendency to summarize the qualitative information into numerical format. The researcher has also developed predictive regression models to estimate the dependent variables in all the cases where independent and dependent variables are correlated, so that it is possible for one to know the relative importance of the various independent variables. Although there are many models that can be used, the choice of the relevant model is largely on such factors as the type of data generated, number of dependent and independent variables and nature of the relationships expected. For instance, Kibera (1979) relied mainly on analysis of variance (ANOVA) and regression analysis to assess the contribution of receiver variables on mean scores of the dependent variables. On their part, Cohen and Cohen (1983) used hierarchical regression analysis in which composite performance was regressed on the state of the employee (well being, negative mood, positive mood) to find out how these states affected performance. Wright et al (2004) used bivariate correlation analysis to find out the relative importance of dispositional and situational influences on firm effectiveness. Fox and Dayan (2004) used ANOVA in their study to find out how investors' decisions are influenced by comparison of one's achievements with others. The current study uses bivariate as well as multivariate analysis to come up with models for the relationships in the various areas.

4.7.1 Test of Hypothesis 1

Both correlation and regression analysis were used to test hypothesis one. Correlation analysis was used to identify the strength and direction of a linear relation between independent variable (Human Resource Management practices indicators) and dependent variable (firm effectiveness) while regression analysis was used to estimate the effect of this independent variable (Human Resource Management practices indicators) on the dependent variable (firm performance indicators). Hypothesis one stated in

the null form that there was no relationship between human resource management practices and firm effectiveness of manufacturing firms in Kenya. The alternative hypothesis stated the opposite. The results are presented in Tables 4.45.

The correlation results in Table 4.45 show that all human resource management practices significantly related to organizational effectiveness. Employee training (r = .536, P <0.01), Material incentives (r = .588, P<0.01) and performance appraisal (r = .428, P<0.01) were significantly and

positively related to firm effectiveness . However non-material incentives was negatively and significantly related to organizational effectiveness (r = -.485, p<0.01) as indicated in Table 4.45. This means HRM practices indicators employee training, material incentives and performance appraisal had significant association with firm effectiveness association. These results imply that consumer goods manufacturing firms in Kenya are focused on the HRM practices to enhance firm effectiveness but differently on firm financial viability, effectiveness and relevance.

Table 4.45: Correlation Coefficients for the Association between Human Resource Management Practices and Organizational Effectiveness

		Organization Effectiveness
Employee Training	Pearson Correlation	.536(**)
Material Incentives	Pearson Correlation	.588(**)
Non Material Incentives	Pearson Correlation	-.485(**)
Performance Appraisal	Pearson Correlation	.428(**)

** Correlation is significant at the 0.01 level (2-tailed).
* Correlation is significant at the 0.05 level (2-tailed).

Source: Survey data (2013)

The regression results of control variable (firm category) and firm effectiveness show that the error terms are independent for all the models as the Durbin Watson D statistics were close to two. In addition, the regression models significantly explained the variances in firm effectiveness as the F-values for these models were significant. This is confirmed by the R^2 value which is effectiveness (R^2=.425, p <0.05) as indicated in Table 4.48.

Table 4.48: The Direct Effect of Firm Category on Dependent Variable (Firm Effectiveness)

	EFFECTIVENESS
Constant	5.136 (.000)
Firm category	-.580 (.000)
R	.661
R^2	.425
F	37.258 (.000) (df. 1,48)
Durbin-Watson	2.066

Source: Survey data (2016)

In order to test hypothesis one, regarding the effect of human resource management practices on firm performance, multiple linear regression was carried out. The four indicators of HRM practices namely Employee training, material incentives, Non-material incentives and Performance appraisal were

introduced in the models and the results are given in the Table 4.49.

The results reveal that the error terms were statistically independent with all the D statistic values close to two. The regression models also explained the variances in all the performance measures since the various F statistics were significant at one percent significance level for effectiveness. As shown in Table 4.49, performance appraisal had a significant effect on effectiveness (β=.198, p<.05) while material incentives had positive and significant effect on effectiveness (β=.303, p<.01).

Table 4.49: The Regression Coefficients for the Effect Of HRM Practices Indicators (Training, Non-Material Incentives, Material Incentives And Staff Appraisal) on the Firm Effectiveness

	EFFECTIVENESS
Constant	2.523 (.000)
Firm category	-.356 (.001)
Employee Training	.142 (.104)
Non-material incentives	.018 (.625)
Material incentives	.303 (.000)
Performance appraisal	.082

	(.088)
R	.818
R^2	.669
F	17.767 (.000) (df. 5,44)
Durbin-Watson	1.757

Source: Survey data (2016)

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.0 Introduction

This chapter presents the summary, conclusions and recommendations drawn from the findings of the study. It presents the contributions of this research to the body of knowledge. It discusses the conclusions based on the research objectives and hypotheses, implications for theory, policy and practice, implications for methodology, limitations of the study and recommendations for further research. The conclusions are based on the research objectives and on the analyses conducted in chapter four.

5.1 Summary and Conclusions

The objective of the study was to establish the relationship between Human Resource Management Practices and firm effectiveness. Findings indicated high activities in the adoption of best HRM practices that enhanced firm performance among the firms. The HRM practice of material incentives reported highest positive and significant effect on firm effectiveness. This implies that of the HRM practices, material incentives and performance appraisal were the most highly regarded to influence effectiveness. Nevertheless, the null hypothesis was rejected and alternative hypothesis for the objective confirmed. The results are a milestone in that HRM practices has been explored and described through all the four indicators and their influence on all the firm performance indicators, contrary to what is witnessed in past studies.

5.2 Recommendation

Arising from the objective, it is recommended that the firms' efforts on firm effectiveness be enhanced by material incentives, non material incentives and performance appraisal given to employees. Contrary to prior research, this study has shown that taken as a whole HRM practices influence firm effectiveness. Other independent variables and other designs may be considered in future.

5.3 Limitations of the Study

A number of limitations were identified in the conduct of this research. First the largely depended on cross sectional data which are generally limited by the virtue of being collected at one point in time and do not give sequence of events. However, studies based on cross-sectional data tend to provide information for subsequent studies in the same areas of interest.

The second limitation is that the manufacturing sector has many sub-sectors that were not covered such as refined petroleum products; textiles, apparel, leather and foot-ware; forest products; Equipment; Fabricated metals; rubber and plastics; publishing and printing; furniture, tobacco and other food processing and chemicals not reviewed in this study. The context of these other sub sectors may be different too. This means that these results can only be generalized to those firms involved in production and marketing of edible oils, soaps and detergents, beverages or sugar as part of the manufacturing sector. Thus any extrapolation from these results must have this fact in mind.

The third limitation concerned the data which was collected through self report questionnaires by the employees. This method gives the respondents opportunity to describe their own experiences. This may be problematic as respondents may not remember all issues. It is also prone to social desirability bias, whereby the respondents prefer to answer questions in such a way as not portray them in bad social light.

The third limitation was the geographical spread of the firms. The firms were scattered across the whole country, including some located in very remote parts of the country, making it difficult for the researcher and the assistants to access them. However, the response came within a reasonable time, almost with the same speed as those for respondents in Nairobi.

5.4 Suggestions for future research

The study has several limitations that create fruitful suggestions for future research. First, the current study depended on cross sectional data which are generally limited by the virtue of being collected at one point in time and do not give sequence of events. On this basis, a similar research should be conducted using time series data to determine long term effects of the exogenous variables on effect of

the HRM practices – firm effectiveness relationship in consumer goods manufacturing firms.

Secondly, this study is limited to the consumer goods manufacturing firms alone. Hence, the current results may be specific to the context of these firms. Future research should be extended to the service industry in order to generalize the results reported here.

Thirdly, given the limitation of this study in terms of sample size, sub-industries and HRM dimensions, future studies should consider enlarging the sample size, by incorporating other sub-industries and HRM dimensions, such as planning, selection and recruitment, labour relations, teamwork, communication and recognition as well as health and safety of human resources.

Fourthly, future research studies should also consider testing the mediating role of research institutions such as Universities. They could enhance the firm production and performance. Although there may not be sufficient samples to do analysis in the research, this is still a potential topic that should be considered.

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