

**ENTREPRENEURIAL ORIENTATION AND PERFORMANCE OF KENYA PRISON
ENTERPRISES: A CASE OF KAMITI MAXIMUM PRISON ENTERPRISE IN KENYA**

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DECLARATION

I the undersigned declare that this research project is my original work and has never been presented for a degree award or any other university programme.

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This research project has been submitted for examination with my approval as the University Supervisor.

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DEDICATION

To my loving wife Esther and daughter Stacy, I dedicate this work to you.

ACKNOWLEDGEMENT

I thank GOD for his gift of life, energy and health that enabled me pursue this research work to the end. Special thanks go to my supervisor Dr. James M. Kilika for his dedication and guidance throughout the research process. I recognize the moral and material support extended to me by the Kenya prison service lead by Mr. Isaya M. Obugo the Commissioner General of prison. I cannot continue without mentioning the input of madam Khaemba, Mr. Peter Chege all from Prison Headquarters, the Officer In-charge Kamiti prison Mr. Henry Kisingu for his bold and tireless effort to see to it that I successful finish this course, all the officers working under him especially Kamiti Academy lead by Chief Officer one Mr. Gumbi. Kamiti Documentation offices lead by CO 1 Mr. Daniel Maina and Cpl kipoto.

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ABBREVIATIONS AND ACRONYMS

AIE	Authority to Incur Expenditure
BOP	Bureau of Prison
DPM	Directorate of Personnel Management
FPI	Federal Prison Industries, Inc.
FVM	Free Venture Model
GDP	Gross Domestic Product
GLCs	Government-Linked Corporations or Enterprises
KIBT	Kenya Institute of Business Training
KIRDI	Kenya Industrial Research Development Institute
KPI	Kenya Prison Enterprise
EO	Entrepreneurial Orientation
OL	Organizational Learning
PIE	Prison Industry Enhancement
PPP	Public-Private Partnership
SME	Small and Medium Enterprises
SPSS	Statistical Package for Social Scientists
SWOT	Strength, Weakness, Opportunity and Threats
UN	United Nations
VET	Vocational Education and Training

OPERATIONAL DEFINITION OF TERMS

Borstal institutions:	Youth custody Centre for young offenders of between sixteen and twenty one years
Enterprise:	Any entity engaged in an economic activity irrespective of its legal form
Entrepreneurial Orientation:	The processes, practices, and decision making activities that lead to new entry
Entrepreneurship:	In this study refers to the process of identifying and selecting viable opportunities that can generate incomes under calculated risks.
Innovation:	Refers to engagement in creativity that result into introduction of new products, services and technologies.
Officer in charge:	Refers to a prison officer or an administrative officer appointed by the Commissioner to be in charge of any prison.
Organisational Performance:	An analysis of a company's performance as compared to goals and objectives. Within corporate organizations, there are three primary outcomes analyzed: financial performance, market performance and shareholder value performance
Parastatals:	Government owned enterprises and organizations.
Prison Enterprise:	A directorate in Kenya prison dedicate on all income generating activities. They include prison industries, farming and all other non-classified income projects
Prison Officer:	Refers to any member of the Kenya Prisons Service of all rank.
Prisoner:	Refers to any person, whether convicted or not, under detention in any prison.
Program:	Refers to a set of activities/contents, topics that are prepared and planned systematically

ABSTRACT

This research project was geared toward investigating entrepreneurial orientation and performance of Prison Industry Enterprise a government-linked enterprise. It explored the five dimensions of entrepreneurial orientation covering innovation, proactiveness, risk taking, aggressiveness and autonomy and their effect on performance. The research focused on Kamiti Prison Enterprise to act as a pilot point whereby the result can be used to generalize the situation in other prisons' industries in Kenya. Due to the availability of non-utilized resources in Kenya prison department, a study of this nature is necessary to inform the government policy makers, prison fraternity and the public in general because currently the available information is very limited. Eventually this research work will contribute to proper management of enterprise-oriented public departments especially Kenya Prison Enterprises. Investigation of Entrepreneurial Orientation and Performance of Prison Enterprises in this study intends to fill in this gap. Kamiti Maximum Prison Enterprise presents perfect area of study because it is the largest prison in Kenya both in size and population. The literature review focused on the existing knowledge of entrepreneurial orientation and the effect it has on performance of business entities. The study uses Resource Based Theory and Innovation Theory as alternative theories in entrepreneurship. Further, it gave a comprehensive empirical and conceptual literature review. The study design was descriptive survey where data were collected using questionnaires, observations and secondary materials. Data was obtained from the target population through census of 100 prison industries consumers, released former prisoners, prisoners, prison officers, other administrators in kamiti prison. The collected data was edited, coded and then analysed using Microsoft excel and SPSS (statistical package for social scientists). The findings presented in form of tables, bar graphs and pie charts. Other inferential statistics showed there is a positive relationship between three dimensions of Entrepreneurial Orientation in Kamiti Prison Industry which also affected its performance. This research concluded that the three Entrepreneurial Orientation dimensions had significant and positive effect on the performance of Kamiti Prison Industry. Based on these conclusions the study recommends that measures be put in place to adopt and enhance Entrepreneurial Orientation as the best approach toward revolutionizing prison industries in Kenya. The study recommends further studies be carried out using longitudinal design so as to capture effect of Entrepreneurial Orientation on performance over long period of time.

CHAPTER ONE: INTRODUCTION

1.1 Background of the study

Entrepreneurial Orientation refers to “the processes, practices, and decision making activities that lead to new entry” (Lumpkin & Dess, 1996, Wiklund & Shepherd, 2003). It describes a firm-level strategic orientation which captures an organization's strategy-making practices, managerial philosophies, and firm behaviors that are entrepreneurial in nature. Entrepreneurial orientation is revealed through firm-level characteristics such that it exhibits some level of innovation, proactiveness, taking risk, aggressiveness and autonomy in making decisions. These elements in different levels of combinations have some bearing on the performance of a firm. The concept of Entrepreneurial Orientation in the discipline of entrepreneurship has received substantial global focus by scholars to establish its relationship with performance both theoretically and empirically (Covin, Greene & Slevin, 2006).

Prison industries are categorized under Government-linked enterprises although they may adopt varied model of management. The model taken such as Public Private Partnership, through share-holding or entirely owned by the government but with a view of generating income notwithstanding must use strategies that will guarantee its survival in a fast changing environment. Such strategies are associated with improved firm performance in today's business environments where product and business model life cycles are shortened (Hamel, 2000), and where the future profit streams from existing operations are uncertain and businesses need to constantly seek out new opportunities (Wiklund & Shepherd, 2005).

In order to ensure survival of these government-linked enterprises, it is prudent to examine the relationship between performance and the variables of innovation, proactiveness, risk-taking, aggressiveness and autonomy Omar (2012). These investigations gave rise to the level of applicability, how well they can be adopted and whether such adoption will achieve sound management and performances. Evaluating high level application of entrepreneurial orientation indicated greater performance as long as the relationships between the elements mentioned remain

positive. The available researches recommend further research on the multidimensional entrepreneurial orientation relationship with performance in government-linked enterprises. Prison Enterprise fallen squarely in this category.

With over 30 thousand hectares of land and 56,000 prisoners, the Kenya prison department enjoy availability of wide range of factors of production. They include free labour from convicted prisoners and prison officers, large acreage of land, which places its industrial venture with clear comparative advantage (prison reports, 2009). Further, the framework provided by the colonial government and the infrastructure developed thereof gave a strong base for creation of a massive sector that could make substantial contribution to the economy of this country. The Kenya Prison Enterprise have been characterised by uncoordinated improvements or systematic growth stagnation. To live to its objectives, new combination of factors of production is expected and in this case to acquire total overhaul, application of entrepreneurial orientation theory emerge as the best approach. This study will help the government-linked enterprises to adopt the best combination of these factors not forgetting the effect of moderating factors such as government control, external environmental factors and organisational learning.

Kamiti Prison Enterprise is largest in terms of size, capacity and population of both prison officers and prisoners among all the prisons in Kenya (prison reports, 2009). Further it receives the highest portion of government of authority to incur expenditure (AIE) estimates coupled with its proximity to the capital city of Kenya, Nairobi. These factors make it strategic to investigate the performance against entrepreneurial orientation among the prisons in Kenya.

1.1.1 Entrepreneurial Orientation

Entrepreneurial Orientation has become one of the most established and researched constructs in the entrepreneurship literature. A general commonality among past conceptualizations of EO is the inclusion of innovativeness, proactiveness, and risk-taking as core defining aspects or dimensions of the orientation (Miller, 1996, Covin & Slevin, 2004). EO has been shown to be a strong predictor of firm performance (Rodrigues, 2011).

As definitions of Entrepreneurial Orientation expanded, Lumpkin and Dess (1996) offered an alternative view of EO as the combination of five dimensions, those put forth by Miller, Covin and Slevin as well as competitive aggressiveness and autonomy. Moreover, they suggested that additional insights stand to be gained from investigating the dimensions independently. Subsequent research argued that there is value in examining Entrepreneurial Orientation according to conceptualization depending upon the demands of the research question being addressed. This conceptualization has been used in over 200 studies focusing not only on entrepreneurship, but ranging from management and marketing to healthcare (George & Marino, 2011).

Historically, risk-taking was a key characteristic associated with entrepreneurship. It originally referred to the risks individuals take by working for themselves rather than being employed, but has since been widely applied to companies, for example, when managers make decisions that commit large amounts of resources to projects with uncertain outcomes. Secondly, proactiveness describes the characteristic of entrepreneurial actions to anticipate future opportunities, both in terms of products or technologies and in terms of markets and consumer demand. This characteristic was at the center of early economic thinking in this field: the entrepreneur was thought of as someone who identifies opportunities in the marketplace and proactively pursues them. Translated to the level of the firm, proactive companies are leaders in the market, rather than followers (Lumpkin & Dess, 1996).

Innovativeness relates to the types of products and services a company has introduced to the market. For some theorists, innovativeness is intrinsically linked to entrepreneurship in that entrepreneurs create new combinations of resources by the very fact of their entry into the market. In the context of EO, innovativeness is defined more narrowly, emphasizing the importance of technological leadership to the company, as well as changes in its product lines. The fourth dimension of OE competitive aggressiveness refers to the company's way of engaging with its competitors, distinguishing between companies that shy away from direct competition with other companies and those that aggressively pursue their

competitors' target markets. Finally, autonomy "refers to the independent action of an individual or a team in bringing forth an idea or a vision and carrying it through to completion" (Lumpkin & Dess, 1996) without being held back by overly stringent organizational constraints. Although this component seems to primarily have "face validity" in the context of large organizations, many researchers have applied it to the context of small companies and obtained statistically significant findings.

The above five sub models of entrepreneurial orientation form the basis of investigation on their applicability to performance in Kenya Prison Enterprises and in particular Kamiti Prison Enterprise.

1.1.2 Organizational Performance

Performance reflects achievements relative to the resources used by the organization (Black, 2006). This reflects how well the organization manages its resources. To apply traditional assessment terminology, organizational performance must integrate the concepts of effectiveness and efficiency (Davis, 2009). There is no consensus to what firm performance is. Firm performance in its broadest sense as the outcomes of organizational activities can be characterized in financial and non-financial parameters (Chenhall & Langfiels-Smith, 2007). Financial performance is often measured using traditional accounting key performance indicators (KPIs) such as sales growth, return on assets or return on sales. The advantage of these measurements is their general availability, since every profit-oriented organization produces these figures for the yearly financial reporting. The non-financial performance can be measured using operational KPIs. Market share, innovation rate or customer satisfaction are prominent examples. Some non-financial parameters pose a challenge, since there are no universal indicators, for example, company's social performance (Agnieszka, 2013).

The performance key indicators must follow the criteria that is Specific, Measurable to get their value, Achievable defined norms, Relevant to the success

of the organisation and Time phased which means the outcome are shown for a predefined and relevant period.

These performance indicators are the measurement of new customers and level of sales over time, Manufacturing or production of items that is assessed through overall equipment effectiveness, quality control and cycle time, new products, Supply chain management that include timely delivery of products, satisfied customers and competitive prices on products. In an environment of rapid change and shortened product and business model lifecycles, the future profit streams from existing operations are uncertain and businesses need to constantly seek out new opportunities. Therefore, firms may benefit from adopting an EO approach. Such firms innovate frequently while taking risks in their product market strategies (Miller & Friesen, 1982). Efforts to anticipate demand and aggressively position new product/service offerings often result in strong performance (Ireland, Hitt, & Sirmon, 2003).

Performing organizations are viewed as those, which provide good value for the money expended. It is difficult to measure optimal performance of an organization as the measurement vary from one stakeholder to another, that is, the owners, customers, workers and the community under which the organization exist but as indicated above there exist varied performance indicators(Black, 2006). With the current levels of technology, one can develop an integrated information system to measure performance at all level and sectors of an organization. The above definitions only describe how performance is measured. They do not describe what contribute to the performance under evaluation. This study however investigates how entrepreneurial orientation sub models as contributors to performance in prison industry enterprise relate hence their effect.

The government of Kenya gives targets to be achieved by prison industries at the beginning of every financial year with a corresponding Authority to Incur Expenditure (AIE) dictated by the previous year performance (Prison Industries Report, 2012). These targets have corresponding influence on the optimal performance of prison industries. For the government of Kenya to realize performance and other objectives of these industries relative to the investment, there is need to investigate the current performance. Again to reiterate on

measuring performance financial and non-financial yard sticks were used including sales, prices, delivery time and efficiency. As suggest by Wei-Loon (2015) entrepreneurial orientation investigation of government-linked enterprises provide a holistic view of their performances.

1.1.3 Kenya Prisons Enterprise(KPE)

An enterprise is any entity engaged in an economic activity irrespective of its legal form (Robinson, 1982, Young, 1985). Enterprises and especially SMEs have been considered to drive the economy and have been identified as a key driver of many emerging and existing major economies. Prison Industries Enterprise is structured and operates within this definition. It is managed from the prison headquarters and has selected representative in all prisons in Kenya.

Miller and Grieser (1986) have divided prison industries history into five periods: the Development period, prior to the Civil War; the Wide-Scale Adoption period, which followed the Civil War and ended at the turn of the century (1900); the Decline of Industry period, the result of antipathy that led to strict legislation to curtail prison industry; and the Industry Stagnation period, which prevailed, until approximately 1967. The fifth (and current) period, the Contemporary Era, is distinguished by a renewed interest in prison industry as well as evolution in correctional philosophy.

Under the contemporary era, and the growth of the current “medical model” approach to inmate rehabilitation led to a de-emphasis on work as a means of reform (Miller & Grieser, 1986). Instead, an emphasis on inmate psychology, therapy, counseling and education were viewed by many as more important than inmate work (Reynolds, 1996). However, many believed that inmate idleness was a critical factor that led to the riots and this belief fueled a new interest in inmate work. The study established links between pre-release preparation, post-release employment, and recidivism. The study was followed by inmate training in the real world and establishment of industries for this purpose (Karen, 2003). Increase in crime among young men hence increase in cost of security provision is largely due to declining wages and lack of employment (Freeman, 1996, Grogger, 2008).

Employment and school attendance significantly lead to reduced amount of criminal activities in the same way (Locher & Morretti, 2009).

Prison Industries under criminal justice system are to not only punish offenders but also play a critical role in rehabilitation (Gerb & Hoel, 2008). The industry offer exactly that by giving practical skills and training in order to help in re-entry of prisoners back the society reducing recidivism (American Correctional Association report,2008). This study is concerned with the mandate of the industry of helping the prison industry to become an enterprise capable of generating income of covering it expenses there by reducing reliance on exchequer. It must make surplus due to the comparative advantage of factors of production it possess. Key ingredients necessary to improving prison industries were noted. They included a scale of operation that could be competitive; a sales force; and an inmate incentive structure to include adequate wages. This would be achieved only with the involvement of private industry and labor. There was a call for economic return to the state investment, something that would be achieved only by means of an effectively functioning prison industries program (Marie, 2008). Adopting Entrepreneurial orientation automatically falls in.

The Kenya Prison was established in 1911 by the colonial government and is currently governed by law as entrenched in the constitution, Chapter 90 and Borstal chapter 92 laws of Kenya. Prison Enterprise were established with a view of training native African who offended the law to acquire workable skills and means of generating income once they were released from prison hence prevent them from joining conflict for the clamor of independence.

In early 80's the Kenya prison industries were converted to Kenya Prison Enterprises (KPE) with objectives to offer employment to prisoners; rehabilitate prisoners by offering them industrial skills, which they could use upon release to secure employment in the private or public sector; and to generate government revenue to offset the cost incurred in use of taxpayers' money to maintain prisoners. The employment of prisoners in Kenya is anchored in Prison Act (2011) subsidiary Section 86 which state, 'Every convicted criminal prisoner shall be required to engage in useful work, all of which so far as is practicable shall be

performed either in association with other prisoners or by himself outside the cells, and no prisoner shall be employed on any work not authorized by the Commissioner or the Officer In-Charge' (Cap 90 laws of Kenya). This was in line with Rule 71 of the United Nations Standard Minimum Rules of the treatment of offenders of 1955.

There are 118 prisons, which spread all over the country. Five of these are maximum prisons, three Borstal institutions, the rest are medium prisons (Kenya Prison Service Report, 2015). These facilities are bestowed with massive acreage of land. All maximum facilities have industrial and farming enterprises. Majority of medium prisons also possess industrial workshops. Under the arrangement of KPE, a revolving fund was set up to serve as source of capital. Prison Industries Revolving Fund was established under Exchequer and Audit Act (Cap 412) Legal Notice No. 314 of 1988. The Fund started with initial capital of Kshs. 14 million appropriated by parliament in 1987/88. The purpose and object of the Fund was to train and rehabilitate inmates and procure necessary raw materials, tools, plants and equipment required for that purpose and offer for sale finished products in the open market. From the initial 14 Million seed money that was put into its operationalization, the fund has gradually grown to the current capital base of Kshs. 405,299,152.80 which include Kshs.128,369,320.80 accumulated surplus at Pay Master General(PMG) account. New Prison Industries Account was opened in October 2013 and Kshs. 92,135,930.55 Million transferred from PMG Account (Parastatal Africa Report, 2015).

The Kenya Prison Enterprises comprises of provision of vocational training to both prison officers and prisoner in various fields such as carpentry, [re]upholstery, tailoring, metalwork, leather craft, farming, masonry and livestock keeping among others (Prisons Standing Orders, 2011). Products made there in are put into the market for sale to generate income for the enterprise and further developments of this important sector of the government. Other services covered under prison industries include motor vehicle repair, printing of government number plates and any other work as the Ministry of Interior and Coordination of National Government may decide from time to time (Chapter 90 laws of Kenya).

The creation of the Prison Enterprise marked a positive change in the management of the industries. This is because it was not subjected to the usual government procurement procedures but rather it provided leeway to adopt prudent dynamic measures to ensure competitiveness, effectiveness and efficiency in its performance and management. It was to timely respond to forces of demand and supply by implanting strategies that allowed the industry to compete effectively with private businesses hence generate income for the government (Suzanne, 2010). Again, it was to ensure prisoners get useful vocational training and skills to prevent recidivism once released. Freeman, Robert (2003) stated that there is strong correlation between prison training and crime reduction.

Today the noble idea that would have led to a situation of prison industry enhancing its performance and become self-sustaining faces enormous constraints and lost opportunities (Penal Reform International & Kenya Prisons Service, 2003). The application of entrepreneurial orientation in changing the performance of the industry has not been subjected to proper research and analysis. The effectiveness of the Prison Enterprises is marred by competing objectives and changing priorities. Sometimes Ministers and senior managers want the Prison Industries to generate income, at other times, they desire better rehabilitation/training and at other times, they are primarily concerned with keeping prisoners occupied. Such changes make improvements in operational performance difficult (John, 2007). Whichever way, there are costs associated with whatever model adopted. This research is geared toward investigating entrepreneurial orientation and performance by prison industrial venture and finally making recommendation on the way forward to the stakeholders in the context of the Kenyan politico-legal system or the operation guidelines of Government ministries.

Kamiti Prison Industry was established in early 1960s' with distinctive mandate among them being training, imparting vocational skills to prisoners and generating income to government. Since its inception reports shows the industries have experienced slight or stagnant performance and growth factoring in the issue of inflation. The amount of resources available to this industry does not correspond to the output because the industry is operating at about 20% to 30% of

its full capacity (Parastatal Africa Report, 2015). The observed low production capacity require reorientation of resources and hence the proposed investigation from the lenses of entrepreneurial orientation theory. Kamiti Prison industry is the biggest in size and the highest contributor to the revolving kitty established under the Kenya Prison Enterprise (prisons report, 2013). Therefore combination of EO sub-models will assist in choosing the most ideal combination to influence positively to its performance or productivity.

1.2 Statement of the Problem

According to Aidati (2010), the contribution of prison industrial enterprise to the economy cannot be under estimated. This is from the over-all social-economics contribution perspective. Currently, there exist major challenges in government of Kenya in financing its operations characterized by reduced funding. Government-linked enterprises must become self-reliant to reduce dependency and borrowing internally or otherwise. There exist mismatch between the performance of Kenya Prison Enterprise and the resources available or allocated to these ventures by the government (Penal Reform International & Kenya Prisons Service report, 2003). The availability of land, free labour, machineries, non-requirement to pay trade licenses of prison industries provide it with comparative advantage to better performances. This is not the case.

The systemic non-performance needs reorientation of factors of production. The idea of Prison Industries Enhancement comes in handy (Nathan, 2010). Cindy, 2006 suggested that the level of application of EO in these industries is key in determining the direction the industry takes in addressing the issues of self-reliance and rehabilitation of offenders. The main problems in KPE include and not limited to lack of optimal allocation of resources, poor marketing strategies, inadequate training, failure to adapt to future opportunities and inefficiency. There is need therefore to investigate the existing relationship between the concept of Entrepreneurial Orientation sub models and performance within prison industries in Kenya so as to offer practical recommendations coupled with action plans to capitalize on the gains made from previous research and experience in these profit oriented sector.

The available studies about EO are inadequate on two grounds. First, previous studies on EO have been done in profit oriented entities that have characteristics that are distinct from those in the public sector. Therefore the concept of entrepreneurship has not been assessed from the context of government-linked organizations (Wei, 2015). Secondly, available previous studies have addressed prison industries from the point that their main purpose is to merely provide skills to prisoners as part of the intervention for rehabilitating their criminal oriented behaviors before they are released to the society (Nathan, 2013). There exists very little or no study that has attempted to establish the relationship between the concept of entrepreneurial orientation and performance of Prison Industry Enterprises.

The purpose of this study was to investigate the effect of the Entrepreneurial Orientation on Performance of the Kenya Prison Enterprise in Kamiti Maximum Prison.

1.3 General objective

The main objective was to investigate the effect of the Entrepreneurial Orientation on performance of Kenya Prison Enterprises.

1.3.1 Specific objectives

The specific objectives of the study are;

- i. To assess the effect of entrepreneurial innovation on performance of Kamiti Maximum Prison Enterprise.
- ii. To examine the effect of the level of entrepreneurial proactivity on performance of Kamiti Maximum Prison Enterprise.
- iii. To evaluate the effect of the levels of risk taking activities on performance of Kamiti Maximum Prison Enterprise.
- iv. To assess the effect of autonomy on performance of Kamiti Maximum Prison Enterprise
- v. To assess the effect of aggressiveness on performance of Kamiti Maximum Prison Enterprise
- vi. To determine the moderating effect of government policy and macro-environmental factors on the relationship between entrepreneurial orientation and performance of Kamiti Maximum Prison Enterprise.

1.3.2 Research Hypothesis

The study held the following Null (H_{0x}) hypotheses:

- i. H_{01} : there is no significant effect of entrepreneurial innovation on performance of Kamiti Maximum Prison Enterprise.
- ii. H_{02} : there is no significant effect of entrepreneurial proactivity on performance of Kamiti Maximum Prison Enterprise.
- iii. H_{03} : there is no significant effect of level of risk taking activities on the performance of Kamiti Maximum Prison Enterprise.
- iv. H_{04} : there is no significant effect of autonomy on the performance of Kamiti Prison Enterprise.
- v. H_{05} : there is no significant effect of aggressiveness on performance of Kamiti Maximum Prison Enterprise.
- vi. H_{06} : there are no moderating effects of government policy and macro environmental factors on the relationship between entrepreneurial orientation and performance of Kamiti maximum Prison Enterprise

1.4 Significance of the study

This study has academic, policy and practical implications. The government recurrent expenditure is skyrocketing. To stop this trend, government departments with idle resources must utilize them well and become self-sustaining. The study to identify relationship between the independent variables and performance in this industry will help to device concrete policies toward achieving self-sufficiency. At policy levels, It will benefit stakeholders in the criminal justice system especially the rehabilitation and transformation of prisoners that lead to reduced recidivism/crime, the government, the society, the consumers of products made in prison and the prison department in entrenching an entrepreneurial culture that will enhance performance of the prison enterprises thereby promoting overall growth and development of the country. It set the basis for future study in analyzing the efficacy of government-sponsored enterprises. Currently there is urgent need to harmonize and rationalize all Kenyan government Parastatal bodies

and the study on entrepreneurial orientation and performance in prison Enterprise is timely.

The study will influence managerial practices in that Prison industry possesses numerous resources that include land, free labour from prisoners and machineries. If properly utilized, these resources can generate more products and income that can be used within the institution and reduce government funding. Managing a public body with EO dimensions in mind enhances performance and this study will contribute more knowledge of management.

There have been very little locally generated, formal, structured study in this sector and therefore this study will offer a starting point of building solid knowledge in this area of Prison Industry in Kenya and enrich the academic world with its contribution. By investigating the impact played by the moderating factor and as suggested by previous studies to look into organization learning (OL) which acts like the bridge between entrepreneurial orientation and performance, the researcher canvassed on this matters in details.

As indicated earlier, new study is required to guide the management of Kenya Prison Enterprise. The focus here is Kamiti prison industry which provides a better picture from strategic point of view. However, the finding can be generalized across the other prison facilities in the country. It has given additional insight based on scientific and factual basis.

1.5 Scope of the study

The study was done in Kamiti Maximum Prison Industries. Kamiti Maximum prison is located in Nairobi County on 1,200acre (4.9km²) estate, 20 Kilometre from the Central Business District (CBD). It consists of three units, which are Kamiti Maximum Security Prison, Kamiti Medium Security Prison and Youth Corrective Training centre (YCTC) (Gumbi, 2014). Kamiti is the largest and one of the maximum-security prison facilities in Kenya. This study was restricted to this area.

The scope of the study was 100 stakeholders of kamiti prison enterprise. It covered the prison officers, heads of departments, prisoners and government employee who are not prison officers. The purpose was to investigate the existing

relationship between the five entrepreneurial orientation sub models and performance of the kamiti prison enterprise. The content scope includes the five dimensions of EO as independent variable, macro-environmental factors as moderating effects and performance as the dependent variable. The study also involved at looking for the secondary materials on the performance of the enterprise for the last five years.

1.6 Limitations of the study

The researcher being one of the prisoners therein has restricted movement due to rules that govern the prison institutions. The researcher experienced difficulties on effective follow-up of released prisoners. Secondly, information available outside prison walls involved the usage of another parties or persons who were trained to understand what was required. Scanty or non-existence of record regarding management of prison enterprise within Kamiti was a major problem.

To mitigate these limitations the researcher strived to observe all measures and guidelines provided in conducting research to avoid inaccuracy of information obtained. Interviewers were adequately trained to be able to collect relevant data. Further, the researcher allocated substantial amount of resources to ensure adequate follow up of released prisoners. Scanty available record regarding Kamiti prison enterprise were subjected into in-depth and constructive audit to obtain accurate data and ensured all necessary information was obtained properly and met the required standards.

In addition, the researcher obtained a letter from Kenyatta University post graduate coordinating office that introduced him to prison offices within the facility for the above purpose. The researcher gave assurance to the officers that the findings of the research will be used for academic purposes and the prison departments are entitled of getting a copy of the final document of this research project.

1.7 Organization of the study

The first chapter provides the general introduction and context of the study. These include the background of prison enterprise, problem statement, objectives of the study, significance and research gap.

Chapter two presents a literature review covering both theoretical and empirical evidence of prison enterprise. The intention is to gain insights into Entrepreneurship Orientation and performance of Prison Enterprises in Kenya, particularly in kamiti Maximum Prison Industry. In addition, the chapter provides a contextual framework of the study. Chapter three describes the research methodology, highlighting on research design, population of the study, sample size and sampling technique, validity and reliability of the study. Chapter four relate to generation and analysis processes of data thus providing results, presenting the results in simple but comprehensive manner and surrounding discussions of the results. Chapter five includes the summary of the findings, conclusions and recommendations of the study.

CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

Literature review covered the review of existing literature regarding the study topic to explore and familiarize with existing information on entrepreneurial orientation and performance of a firm and specifically Government-linked Enterprises. It covered the theoretical review, empirical review and the conceptual framework. Finally, it explored the description of operational variables and their relationship with performance.

2.2 Theoretical Review of Literature

This study is anchored on entrepreneurial orientation theory, resource based theory and innovation theory. These theories explore and explain ways on how to improve firm performance. All the three theories therefore converge at some point. Innovation theory explains in details the element of innovation in entrepreneurial orientation theory thus the two theories complement each other. There exists however competing discussions which theory between entrepreneurial orientation and resource based theories explain in totality the performance of a firm.

2.2.1 Resource Based View/Theory

Resource based view/theory is an influential body of research within the field of Strategic Management. It was named by Wernerfelt in his article 'Resource-Based View of the Firm' (1984), the origins of the Resource-Based Theory can be traced back to earlier research. Retrospectively, elements can be found in works by Coase (1937), Selznick (1957), Penrose (1959), Stigler (1961), Chandler (1962, 1977), and Williamson (1975), where emphasis was put on the importance of resources and its implications for firm performance (Conner, 1991; Rumelt, 1984). Resource-Based View (RBV) has since then become one of the dominant contemporary approaches to the analysis of sustained competitive advantage. A central premise is that firms compete on the basis of their resources and capabilities (Peteraf & Bergen, 2003).

The issue of firm performance has been central in strategy research for decades and encompasses most other questions that have been raised in the field, for instance, why firms differ, how they behave, how they choose strategies and how they are managed (Porter, 1991). In the 1990s, with the rise of the resource-based approach, strategy researchers' focus regarding the sources of sustainable competitive advantage shifted from industry to firm specific effects (Spanos & Lioukas, 2001).

Resource Based View (RBV) is where firm specific resources are the basis of sustainable competitive advantage when such resources are costly, rare, able to organize and non- replicable. The resource based theory has evolved from nascent upstart perspective to one of the most prominent and powerful theories for understanding organizations (Barney, 2009). Cheap labour, land, capacity to organize and exception from expensive trade licenses are some of the comparative advantage inherent to Prison Enterprises in Kenya. Therefore prison industries needed to apply the RBV approach especially in its organisation. The contribution of this theory in the study is the definition and identification of what amount to comparative advantage within prison industry. Further the theory help in explaining some variables in the conceptual framework. This theory however, does not address the issue of spirit of entrepreneurship in management; it has limited prescriptive implications and cannot be used to measure empirically the issue of sustainability.

2.2.2 Schumpeter's Innovation Theory

Although since the late 1880s there have been reports of the use of the term innovation to mean something unusual, none of first precursors of innovation have been as influential as the Schumpeter. Schumpeter innovation theory defined economic innovation as the development or adoption of new concepts or ideas, and/or the new or adopted ideas themselves as well as the successful exploitation of new ideas. The theory described development as historical process of structural changes, substantially driven by innovation which were divided into five types; i.e. launch of a new product or a new species of already known product, application of new methods of production or sales of a product (not yet proven in the industry), opening of a new market (the market for which a branch of the

industry was not yet represented), acquiring of new sources of supply of raw material or semi-finished goods and finally new industry structure such as the creation or destruction of a monopoly position.

Schumpeter argued that anyone seeking profits must innovate as it's an essential driver of competitiveness and economic dynamics. The theory divided the innovation process into four dimensions: invention, innovation, diffusion and imitation. In the discussion of this study the important aspect of Schumpeter innovation theory is the definition, in-depth analysis of what amount to its application in affecting firm output in regard to innovation. In the investigation of entrepreneurial orientation and performance in Kenya Prison Enterprises, Schumpeter Innovation Theory element of innovation is fused in EO. In this theory the study draws the variable of innovation.

2.2.3 Entrepreneurial Orientation Theory

Research on the topic of entrepreneurial orientation (EO) has existed for decades. Most researchers credit Miller (1983) with introducing the concept of EO to the scholarly literature, although he never employed the term EO in his initial writings on this topic. Different labels have been applied to what is arguably the same core EO phenomenon over the years, for example, entrepreneurial mode (Mintzberg, 1973), entrepreneurial style (Khandwalla, 1977), entrepreneurial posture (Covin & Slevin, 1989). As such, it would be problematic to attach too much weight to the label 'orientation' when trying to understand the phenomenon. Management research has mainly focused on the entrepreneurial orientation (Ireland & Webb 2007) that explains how entrepreneurship is put into practice. EO can be considered as a managerial attitude oriented toward the strategy-making processes that provide organizations with a basis for entrepreneurial decisions and actions (Lumpkin & Dess 1996; Richard, 2004).

Based on Miller's (1983) conceptualization, three dimensions of EO have been identified and used consistently in the literature: Innovativeness, risk taking, and proactiveness. Innovativeness is the predisposition to engage in creativity and experimentation through the introduction of new products/services as well as technological leadership through research and development in new processes.

Risk taking involves taking bold actions by venturing into the unknown, borrowing heavily, and/or committing significant resources to ventures in uncertain environments. Proactiveness is an opportunity-seeking, forward-looking perspective characterized by the introduction of new products and services ahead of the competition and acting in anticipation of future demand.

Lumpkin and Dess (1996) suggested that two additional dimensions were salient to entrepreneurial orientation. Drawing on Miller's (1983) definition and prior research (Burgelman, 1984; Hart, 1992; MacMillan & Day, 1987; Venkatraman, 1989a), they identified competitive aggressiveness and autonomy as additional components of the EO construct. Competitive aggressiveness is the intensity of a firm's effort to outperform rivals and is characterized by a strong offensive posture or aggressive responses to competitive threats. Autonomy refers to independent action undertaken by entrepreneurial leaders or teams directed at bringing about a new venture and seeing it to fruition.

Although EO is theoretically beneficial for firms (Ireland & Webb 2007) and a positive relationship with performance could be expected (Rauch, 2009) some results have not been fully conclusive. Subsequent researches have been based on improvement of conceptualization of entrepreneurial orientation by Millers (1983). Entrepreneurial Orientation theory provides a holistic approach in understanding and explaining Prison Enterprises in Kenya. This theory forms the basis of this study and adopts its five sub-models as the independent variables.

2.3 Empirical Review

The theoretical arguments of previous research converge on the idea that firms benefit from highlighting newness, responsiveness, and a degree of boldness. Extensive discussion of the arguments can be found in Lumpkin and Dess (1996). Indeed, these suggestions form the basis for the interest in studying the relationship between EO and performance (Miller, 1983). Therefore, firms may benefit more from adopting an EO. Such firms innovate frequently while taking risks in their product market strategies (Miller & Friesen, 1982). Efforts to anticipate demand and aggressively position new product/service offerings often result in strong performance (Ireland, Hitt, & Sirmon, 2003). EO increases

proactiveness and willingness to take risks and innovate (Zahra, Nielsen, & Bogner 1999) within a particular organization. Empirical evidence suggests positive relationship of entrepreneurial orientation sub models and performance of government-linked enterprises.

2.3.1 Entrepreneurial Innovation and organisation performance

Entrepreneurial orientation has its roots in the strategy making process literature (Mintzberg, 1973). Strategy making is an organization wide phenomenon that incorporates planning, analysis, decision making, and many aspects of an organization's culture, value system, and mission (Hart, 1992). Consistent with Mintzberg, Raisinghani and Theoret who noted that strategy making is "important, in terms of the actions taken, the resources committed, or the precedents set" (1976), EO represents the policies and practices that provide a basis for entrepreneurial decisions and actions. Thus, EO may be viewed as the entrepreneurial strategy-making processes that key decision makers use to enact their firm's organizational purpose, sustain its vision, and create competitive advantages.

Okombo(2015) revealed the following as the obstacles to effective strategy implementation at Kenya Prison Service: insufficient international exposure and benchmarking, Inadequate monitoring and evaluation mechanisms, Inadequate number of professional personnel, Delayed review of Prisons Act Cap 90 and Borstal Institutions Act Cap 92, Inadequate physical infrastructure, Dilapidated prison facilities, Weak collaboration and networking in the criminal justice administration, Grossly inadequate funding, Poor donor support linkage, and Lack of training curricula for prison officers, Inadequate planning, scarcity of resources, lack of commitment from the management, underdeveloped Information Technology Network, bureaucratic decision making, lack of technological hardware, and lack of skilled personnel in modern technology. The study looked into prison as a whole in regard to strategy implementation. It did not address the specific concern of strategy as a subset of EO in relation to Prison Enterprises. This is the focus of this study.

As indicated by Chen, Du and Chen (2011), EO is important to the growth of a company and also to the growth of the economy of a country. In fact, scholars agreed that EO is a significant contributor to a firm's success and contribute to a healthier business performance (Mahmood & Hanafi, 2013; Zainol & Ayadurai, 2011). Performance is a multidimensional concept and the relationship between EO and performance may depend upon the indicators used to assess performance (Lumpkin & Dess, 1996). Research studies consistently show support for a positive relationship between EO and firm performance and sales growth (Feifei, 2012; Zahra & Covin, 1995). Empirical results provided evidence of a strong relationship between EO and profitability and revenue generated by the firm (Yong-Hui, 2009), and such relationships increases over time (Wiklund, 1999). This study therefore looked into the above phenomena of performance of prison industry driven by dynamics of EO.

The empirical literatures report a high diversity of performance indicators (Combs, Crook, & Shook, 2005); a common distinction is between financial and non-financial measures. Non-financial measures include goals such as satisfaction and global success ratings made by owners or business managers; financial measures include assessments of factors such as sales growth and return on investment (Smith, 1976). Regarding financial performance, there is often a low convergence between different indicators (Murphy, Trailer & Hill, 1996). This study has managed to fill the gap and explain the effect of EO dimensions and both financial and non-financial results of prison enterprise.

On a conceptual level, one can distinguish between growth measures and measures of profitability. While these concepts are empirically and theoretically related, there are also important differences between them (Combs et al, 2005). For example, businesses may invest heavily in long-term growth, thereby sacrificing short-term profits. The conceptual argument of the Entrepreneurial Orientation and performance relationship focuses mainly on financial aspects of performance. Businesses with high EO can target premium market segments, charge high prices and 'skim' the market ahead of competitors, which should provide them with larger profits and allow them to expand faster (Zahra & Covin, 1995).

The relationship between, the EO construct and non-financial goals, such as increasing the satisfaction of the owner of the firm, is less straightforward. The argument is that there is little direct effect of EO on non-financial goals because this relationship is tenuous. For example, if non-financial goals are of prime importance, the uncertainty associated with the bold initiatives and risk taking implied by an EO could potentially lead to agony, sleepless nights, and less satisfaction. However, satisfaction may increase because of better financial performance. Further, indirect effects are usually smaller than direct effect.

Therefore, it appears reasonable to assume that the relationship should be higher for EO and financial performance than for EO and non-financial performance. In terms of financial performance; studies can rely on self-report or archival data collected from secondary sources. While self-reported data may offer greater opportunities for testing multiple dimensions of performance, such as comparisons with competitors (Wiklund & Shepherd, 2005), the measures may be subject to bias because of social desirability, memory decay and/or common method variance. Therefore, an important task is to establish the effect size of EO on performance for self-reported financial performance, archival financial performance, and non-financial performance measures. Studies have found that the effect of EO on performance is influenced by firm size, national culture (Rauch, 2004), access to financial resources (Wiklund & Shepherd, 2005), network capability (Walter, 2005), and strategic processes (Covin, 2006). Nevertheless, thus far, a firm's learning orientation (LO) has been a missing link in the examination of the EO and performance relationship.

The term Government-Linked Companies (GLCs) or state-owned enterprises (SOEs) or public enterprises have been used interchangeably. Lau and Tong (2008) described GLCs as companies which are controlled by government through government-linked investment companies (GLICs), the investment arms of the government. By doing so, the government has control over the appointment of board members and senior management as well as to make major decisions such as strategic, investment and restructuring. Although GLCs are profit orientated, they are also socially and environmentally responsible (Omar, 2012).

Without doubt, GLCs play a significant role in the development of a country. For instance, according to a report released by PCG Secretariat (2005), Malaysian GLCs account for 54% of capital market in Kuala Lumpur composite index and they employed about 5% of workforce in the country. They are also the major providers of public utilities and services such as transportation, water, power and telecommunication. Moreover, they are important in executing national industrial policy such as national car project, building up international linkages through foreign investments and joint ventures.

However, the performance of GLCs is still far from satisfactory. For long, GLCs have been labeled as underperformed, bureaucratic, monopolists, practicing favoritism, politically influenced or even pet government projects (The Economist, 2008). Researchers have also concluded that state-owned enterprises are less profitable and less efficient than privatized enterprises (Boubakri, 2009; Ramasamy, 2005). Wei-Loon (2015) study examined the influence of EO dimensions on the performance of GLCs. The sample of his study consisted of 153 subsidiaries and branches. Based on the multiple regression analysis performed, the study found that all the five dimensions in EO, namely innovativeness (INNO), pro-activeness (PROA), risk-taking (RISK), competitive aggressiveness (COMP) and autonomy (AUTO) recorded significant positive effects on performance of GLCs. Competitive aggressiveness was identified as the most important factor that influences the performance of GLCs. As such, all the hypotheses developed for his study were supported.

The results suggested that EO is not only suitable to be applied in privately owned companies, but also in GLCs. Hence, GLCs should not be perceived as public entities and they should be more entrepreneurial in managing their organizations to achieve high performance. Furthermore, his study also verified that EO is a good determinant of GLCs' performance. Knowing the importance of GLCs and the unsatisfactory performance of certain major players, government must initiate several strategies to improve the conditions. Apparently, in order for GLCs to be at par with their counterparts in the private sectors, GLCs are required to change from being bureaucratic to being entrepreneurial. Entrepreneurial orientation (EO)

has been considered as a major contributor to firms' performance. However, studies which examine the relationship between EO and firms' performance are primarily using private firms or small and medium enterprises (SMEs) as the benchmark (Soininen, 2012a, Huang & Wang, 2011). In addition, most of the studies which examined the performance of GLCs are associated with the effects of firm's ownership; for examples, Najid and Rahman, (2011). To date, there is a paucity of studies concentrating on the influence of EO towards performance of GLCs.

To add to the above, quite a number of existing literatures on performance of GLCs are qualitative studies; for instance, Norhayati and Siti-Nabiha (2009) have used case study in their studies. Moreover, a recent study by Omar (2012) which concentrated on the effects of EO on GLCs' performance is qualitatively performed as well. It can be said that to date there is a lack of quantitative empirical research focusing on GLCs performance which specifically associated to EO. Considering the above mentioned gaps, question such as "are dimensions in EO influence the performance of GLCs?" still remain unanswered.

Kenya Prison Enterprise though priding in making quality products lack product diversity and development of new products. Available evidence provide static product development and the existing training is based on colonial manuals. These have negative impact on performance of Prison Enterprise. The Kenya Prison Service strategic plan 2012-2017 has not captured actionable plan on prison industry. The strategic plan of North Carolina Correction Enterprises (2012-2017), suggest implementing new product development through creation of new product development team comprising of prison staff and inmates. The team should consider legality, cost opportunity and benefit of the new product ideas prior to approval of any new product or venture.

To improve performance and compete effectively firms need to adopt innovative ways in terms of product innovation, process innovation and administrative innovation. Administrative innovations involve sound management. Management and administration are very difficult to evaluate, but they are key to success or failure of an organization (Laura, 2000). Other than financial management of this

industry, which is guided by government procedures and control, there is clear absence of strategic management. Innovative strategic management is whereby managers establishes an organization long term direction, set specific performance objectives, develop strategies to achieve these objectives in relation to relevant internal or external circumstances and undertake to execute the chosen plans(Arthur, 1997). Prison Enterprises have suffered greatly from lack of strategic planning and execution

The innovation performance of a firm includes product and process innovations; these two kinds of innovation outcomes are very closely linked (Utterback & Abernathy 1975) and constitute a highly complex process that generally involves all company functions. A product is a good or service offered to the customer, and a process is the way the good or service is produced and delivered (Barras, 1986). Thus, product innovation is defined as the product or service introduced to meet the needs of the market or of an external user, and process innovation is understood as a new element introduced into production operations or functions (Damanpour & Gopalakrishnan, 2001). Product innovations focus on the market and are aimed at the customer, whereas process innovations focus on the internal workings of the company and are aimed at increasing efficiency (Utterback & Abernathy, 1975).

Innovativeness reflects a firm's ability to engage in new ideas and creative processes that may result in new products, markets, or technological process (Rauch, 2009). Covin and Miles (1999) argued that innovation is a crucial part of a strategy and that entrepreneurship cannot exist without it. Hult, Hurley and Knight (2004) suggested that innovativeness plays a significant role in solving business problems and challenges regardless of market turbulence, which in turn provides firms with the ability to succeed. Similarly, Lindman (2009) and Ireland (2003) emphasized the importance of innovation in creating a firm's competitiveness that will lead to superior performance. By increasing commitment to innovative products or processes, firms can renew their operations in marketplace and improve their profitability (Lumpkin & Dess, 1996; Zahra & Garvis, 2000). Nonetheless, the effect of innovativeness on firm performance in the existing literature is inconclusive (Massa & Testa, 2008). To enhance the

knowledge of innovation having effect on performance, this study has as its objective set to evaluate effect of innovation on performance.

2.3.1.1 The role of Training and Organization Learning in Innovation

Erkebrokk and Olsen (2009) report a positive relationship between training, competence and performance in business activities. Under entrepreneurial orientation, organisational/orientation learning within the organisation serve as interlink between EO and performance (Wang, 2012). Sinkula, Baker, and Noordewier (1997) conceptualize Learning Orientation as a firm's values (i.e. commitment to learning, open-mindedness, and shared vision) that influence its propensity to create and use knowledge. Such values guide a firm's behavior and processes of acquiring diverse information, developing common understanding of information acquired, and generating new knowledge or organizational insights (Fiol & Lyles, 1985). A learning organization bears an explicit focus on the acquisition of knowledge that is potentially useful for the organization (Harrison & Leitch, 2005) in order to refine existing knowledge and routines (i.e., adaptive learning) or to question long-held assumptions and develop a new way of thinking (i.e. generative learning) (Slater & Narver, 1995). Learning orientation underpins firms' internal self-renewal, and is an important aspect of firms' strategizing activities (Covin, 2006).

Bowen (2009) found that 49.5% of those who receive proper training reported that their businesses were doing well. This is also so comparing those prisoners who are released without training, those that are released trained and with skills, the latter are successful in their businesses. The performance of Prison Industry Enterprise will largely be successful depending on the quality of training impacted on the officers and the prisoners. This will further dictate the quality of the product produced thereon.

This study looked into the challenges of training, the curriculum offered and to see whether it commensurate with demand of the job market. Nell (2004) reported that a common complaint about prison industry production is that inmates do not learn marketable work skills while incarcerated. However, this is stereotyping as

the modern approach to prison industry production recognizes several positive attribute associated with prison industry production including reduced recidivism, increased employment or self-employment, decreased burden of prison activities on taxpayers etc. A case in point is the large numbers of prisons through prison industries have setup biogas systems to reduce firewood or electricity consumption and the manufacturing of the executive seats fixed in Kenya national assembly and county assemblies among others.

2.3.1.2 Innovation and Product Development

In absence of innovation and creativity, quality production and maintenance is compromised. This study will explore the existing relationship between products innovation and performance. Further, examine the extent to which this relationship affects Prison Enterprise. Another item in production processes is the costing of inputs. This item has direct impact on the price of finished products. Prison productions are quite expensive compared to the market rates and the costing may be a contributing factor. In as much as prices are cushioned by the availability of free labour, this advantage should translate to lower prices hence improving on competitiveness. Utilization of land in food production is a big question that will require thorough interrogation in line with product development. Uptake of modern methods of farming comes in handy.

Literature on product development continues to grow. It is varied and vibrant yet large and fragmented (Shona & Kathleen, 1995). In prison industries, there seemingly no considerable effort in improving existing production processes, products or introducing new products. This dormancy has negatively affected creativity and innovation. Evidently, no new production designs in workshops have been introduced in the recent past. Few traces of such new design are not consistently followed up to evaluate their impact.

2.3.2 Risk-taking and Organisation Performance

Conceptual discussion of risk-taking and organisation performance in prison industries converges on how decisions are made on resource allocation, investment in equipment, factors input and exploration of new external

information. Like in all other Kenyan government departments, prison industry uses budgetary system followed by Authority to Incur Expenditure (AIE). The allocations of resources however have not been based on key performing areas therefore affect optimal performance of the industry.

Risk taking has long been associated with entrepreneurship. Cantillon (1734) defined entrepreneurs as a person who bears the risk of profit or loss. Risk taking has been viewed as a fundamental element of the entrepreneur and entrepreneurship. Risk-taking has been considered in past research as a distinctive characteristic or dimension of entrepreneurship within existing firms (Covin & Slevin, 1989, Lumpkin & Dess, 1996). This stance of the entrepreneur as a risk taker continued to gain acceptance throughout the twentieth century, as McClelland (1965) posited that practically all theorists agree that entrepreneurship involves by definition, taking risks of some kind.

Risk, as the possibility of loss, may be viewed as an inherent characteristic of innovativeness, new business formation, and aggressive or proactive actions of existing firms. The risk-taking dimension is strongly connected to innovativeness and according to Mello and Leão (2005) both risk taking and innovativeness are more common in the entrepreneurial practices development. Risk-taking captures the level of risk reflected on decisions on resources allocation, as well as on the market and product choices, reflecting, in a certain way, the criteria and the standard of decision taking in organizational level (Venkatraman, 1989). Lumpkin and Dess (1996) stated that organizations that have an entrepreneurial orientation are normally characterized by a risk taking behavior, assuming greater financial commitments looking forward to obtaining high results through market opportunities grasp.

Risk-taking behavior also represents a firm's tendency to take calculated business-related risks with regard to strategic actions in the face of uncertainty. Entrepreneurial firms are characterized by tolerance for risks that lead to new opportunities. Edward and Yeboah (2012) in their study recorded significantly positive relationship between each of the entrepreneurial orientation dimension and business performance, except risk-taking which recorded a weak positive

relationship with performance. This meant that improving each of the dimensions will logically lead to an improvement in the business performance.

Risk taking is associated with exploration and discovery of new, external information. However, a closer examination reveals that firms must strike a balance between exploration and exploitation, and that firms engaging in exploration to the exclusion of exploitation are likely to suffer the costs of experimentation without gaining its benefits (March, 1991). Firms with a distinct focus on risk taking and exploration result in too many underdeveloped new ideas (March, 1991), and suffer from diverted efforts and scattered internal resources rather than maintaining a focused direction. This explains that risk taking had a low correlation with EO. Risk tolerance is an important characteristic of entrepreneurial firms, but highly risky actions are not necessarily conducive to performance; instead, careful study of potential risks and mitigating risks is, indeed, a learning process. One example of minimizing the risk and maximizing learning in product innovation is to work extensively with lead customers (Von Hippel, 1986).

2.3.3 Proactiveness and Organisation Performance

One of the characteristics of prison industries product is the high quality of factors inputs. However, the industry relies on the conventional method of marketing. It has not taken advantage of technology to improve on marketing. What exist are showrooms in specific areas that act like outlet of these products. The prices are evidently prohibitive. However, a good marketing strategy will ensure product differentiation depending on target market. If diversification is taken seriously then there is overwhelming evidence of improving on market share of these products. Apart from show room, prison products are displayed to the public during trade fare shows like the Nairobi International Trade Fair Show, which happen annually.

Prisoners consume food and other agricultural productions from its farms while the excess is put into the market to meet the set government revenue targets. However, farm production has gone so low to a point where the prison authority outsources food supplies further straining exchequer.

Conceptual arguments in this study revolved around competitive pricing of prison industry products, promotion, conducting of market survey so as to make informed marketing, anticipating future opportunities and embracing technology. These factors have direct impact on overall performance of prison industry.

Proactiveness gives a firm the ability to anticipate changes or needs in the market, make them happen and be among the first to act on them rather than wait for changes to happen then react to them (Rauch, 2009; Lumpkin & Dess, 2001). Further, Proactiveness is considered a search for opportunities, the anticipation on the introduction of new products and services and the action to create changes and modeling the environment by anticipating tendencies. It is a must for entrepreneurial orientation because it suggests a forward perspective view followed by innovative activities (Lumpkin & Dess, 1996). Venkatraman (1989) suggests that proactivity refers to the process of anticipating and acting on future needs by seeking new opportunities and according to Lumpkin and Dess (1996), proactivity is crucial to entrepreneurial orientation because it suggests forward-looking actions.

Proactiveness is achievement oriented, emphasizing initiative taking, anticipating, creating change, predicting evolution towards a critical situation, and early preparation prior to the occurrence of an impending uncertainty or risk. Proactiveness reveals itself through actions - a formulation of 'stated beliefs' and the implementation of these 'beliefs'. According to Antoncic and Hisrich (2001), proactiveness is the extent to which organizations attempt to lead rather than follow competitors in such key business areas as the introduction of new products or services, operating technologies, and administrative techniques.

This research project investigated this particular challenge of marketing comprehensively to provide workable solutions of marketing of product and services done by prison industries.

2.3.4 Aggressiveness and Organisation Performance

Positive performance of prison industries is impacted to a greater extent on how the industries aggressively attack the market of competitors. Huge competitions especially on furniture come from cheap imports (East Africa Business, 2013). Basic arguments in resource based view include sustainability of competitive advantage (Barney, 2009). Therefore improved prison industry performance is proportional to competitive market attack, sustainability of competitiveness and motivation among the implementers of strategic plan.

The reward coined as motivation, punishment that can be evaluated must be established in an organization (Kazdin, 2005). Remuneration (reward) of both the prison officer and prisoner affect largely to the level of productivity. The law is clear on the procedures of remuneration of prisoner as indicated in Prisons Laws, which state that ‘The rate of earnings in each grade shall be fixed by the Minister’ (Section 20 Prisons Act Cap 90). Remuneration of prison officers follow the rules as established in Prison Standing Orders and Directorate of Personnel Management (DPM). However, preliminary investigations shows that this payment schemes for both prison officers and the prisoners is barely practiced or do not exist at all. This is a demotivating factor to stakeholders that this researcher will be looking at.

Competitive aggressiveness is the intensity of the firm’s to improve their position to outdo and overtake their competitors in the market. It is characterized by a strong offensive posture directed at overcoming competitors and may be quite reactive as when a firm aggressively enters a market that a rival has identified (Lumpkin & Dess, 1997). In their initial study autonomy and competitive aggressiveness were excluded from the study. This is because as Lumpkin and Dess (2001) posit, although researching several EO dimensions and their effect on performance at the same time may increase accuracy in the description of the EO construct, it might result in a corresponding loss of parsimony. In addition, analyzing the data and the subsequent interpretation would be very complex and awkward. In subsequent research these two elements have been extensively examined in relation to enterprise performance.

Ferrier (2001) conceptualized competitive aggressiveness as a sequence of competitive actions, which all together form a competitive attack. He studied the influence of four different dimensions of competitive attack on firm performance; the volume of a competitive attack; the duration of a competitive attack; the complexity of a competitive attack and the unpredictability of a competitive attack. Specifically he focused on the influence of competitive aggressiveness on firm performance in product-markets. However, there is still much unknown about the impact of competitive aggressiveness in factor-markets, especially when the attack comes from a typical rival. Thus, it is still unclear what firms can do in terms of competitive aggressiveness to secure their relative supply market position, especially when there are signs of threats from unanticipated rivals in factor-markets.

This means that the greater the volume, the longer the duration, the more complex and the more unpredictable a competitive attack is, the more it improves the relative position of the attacking firm (BecemBourbita, 2015). His study's findings were in line with Ferrier's (2001) theory: greater volume, longer duration, more complexity and more unpredictability of a competitive attack positively influences the relative supply market position of firms. To influence the quality of aggressiveness, human capital improvement through the mode of selection, motivation, reward and punishment are important. Graham and Bennett (1998) noted that human resource management is based on the findings of work psychology and uses techniques and procedures known collectively as 'personnel management'.

2.3.5 Autonomy as an Entrepreneurial Orientation and Organisation Performance

Centralized decision making coupled with poor communication in prison service affect effective implementation of strategic plan (Okombo, 2015). Individual and sectional Independence in both operational and organisational performance promote creativity and increase productivity. In this study, conceptual discussion focus on independency on financial matters especially how AIE works, financial reporting and decision making process at all levels.

Autonomy refers to the ability to make decisions and to proceed with actions independently, without any restrictions from the organisation (Lumpkin & Dess, 1996). It also reflects the strong desire of a person to have freedom in the development of an idea and in its implementation (Li, Huang & Tsai 2009). Several scholars (Coulthard, 2007; Prottas 2008; Cogliser & Schneider 2009) suggested that giving autonomy to all players in the organisation may motivate them to act entrepreneurially, and in turn improve firm performance. Despite the acknowledgement of autonomy's role in enhancing firm performance, some studies were not able to demonstrate a positive effect of this relationship (Hughes & Morgan, 2007).

Wei-Loon (2015) reported significant positive relationship between autonomous decision making processes in government linked enterprises and performance. The significant positive relationship between autonomy and firms performance has been confirmed by Wang et al. (2009). However, such relationship was not proven by Casillas and Moreno (2010) and Hughes and Morgan (2007). The mixed results obtained by the previous researchers showed the need to investigate the relationship between autonomy and firms' performance.

2.3.6 Macro Environmental Factors

Performance of prison enterprise is subject to the macro environment factors that they have no control over. Conceptually issues like inflation, increase in crime due to unemployment, heated political climate that affect businesses must be put into account. Prison industry must have ways of accommodating the Marco-environmental changes.

A particular firm does not possess direct control on these external environmental factors. These are factors that play outside the control of management (Karanja, 2014). In this instance a firm can only respond to completion but cannot control what happens unless it a monopoly. Other general conditions such as the rate of inflation and political stability will have an effect on performance of a firm indirectly (Aidati. 2011). When inflation is high and the firm is a net importer of factors input, then the prices are adjusted upward to capture the change in prices

of foreign exchange. This is true also because inflation adjust cost upward on energy. However inflation is favorable to net exporter firms. Competition can partly be influenced from internal mechanism of a firm but to large extent external factors dictate the rate of competition in a particular industry (Kibue, 2010).

In regions where there is political instability, the environment is volatile for firms to operate optimally therefore performance is greatly affected because the costs of doing business become very high. This is coupled by high level of uncertainty.

The Ministry of Interior Security and National Coordination through the respective principle secretary provide annual expected income with a corresponding Authority to Incur Expenditure to Kenya Prison Enterprise. These estimates are sometimes too low and do not consider the resources available to individual stations. The controls also extend to the procurement processes that are subjected to procurement and disposal laws. These laws sometime hinder growth in this particular sector.

Funding of public entities involves financial control and accountability (Atkinson & Stieglitz, 2002). It involves giving proper account of government funds and resources. Therefore, the problem of accountability and financial control make it impossible for the set objectives of an organization to be achieved (Aidati, 2011). Government controls toward prison industries is designed to allow flexibility of this industries to respond to forces of demand and supply while promoting accountability. This control is in respect to issuance of annual financial target to be achieved by these industries, procurement procedures of capital inputs machineries and adequate funding (Aidati, 2011).

According to Buchman and Musgrave (2001), just as managing finances is a critical function of management in any organization, similarly public finances management is an essential part of management of government entities. These include resource mobilization, prioritization of programs, budgetary processes; efficiency and exercising controls. Most of the infrastructures put in place in the prison industries which were done by the colonial government have become obsolete due to either mismanagement or wear and tear. The government procurement procedures of both capital and non-capital inputs chock these

industries due to their long tedious time wasting processes (The Prisons Service, 2009).

2.4 Summary of the Gaps

The research gap can be summarized in the Table 2.1 below.

Table2.1 Summary of the Research Gap

Author	Focus of the study	Findings	Research gap	Focus of the current study
Awino(2000)	Effectiveness and problems of Strategy Implementation of Financing Higher Education in Kenya by the Higher Education Loans Board.	Lack of competency in implementation and poor communication of the strategies.	The research did not address the income generating aspect of government sponsored institutions.	Looked at how best to orient factors of production to improve performance of prison enterprise a government sponsored institution.
Grieser(2010)	Growth of Federal Prison Industries.	Identified factors that influenced performance of prison enterprises on policy grounds.	The identified factors dealt with government policy matters only.	Focuses on prison industry as an enterprise hence looking into entrepreneurial orientation and performance of prison enterprise.
Aidati(2011)	Effect of government control on performance of prison industries in Uganda	Government controls negatively affect performance of prison industry in Uganda.	The effect of government control was not quantified.	Assessed and quantified government control in prison Enterprise in Kenya.
Okombo(2015)	strategy implementation at the Kenya prisons service	Identified factors influencing strategy implementation	The research did not address strategy implementation in relation to	Looked into strategy implementation in Kenya prison Enterprise both as

		in Kenya prison service.	Prison Enterprise in particular.	a government entity and as a business entity.
Wei-loon(2015)	Effect of entrepreneurial orientation on performance in government-linked enterprises in Malaysia.	The research found positive relationship among all the five sub-model of EO.	It did not look into the multidimensional quantitative effect of EO sub-models on performance of government-linked enterprises.	Investigated quantitatively the multidimensional effect of EO sub-models on performance of Kenya Prison Enterprise.

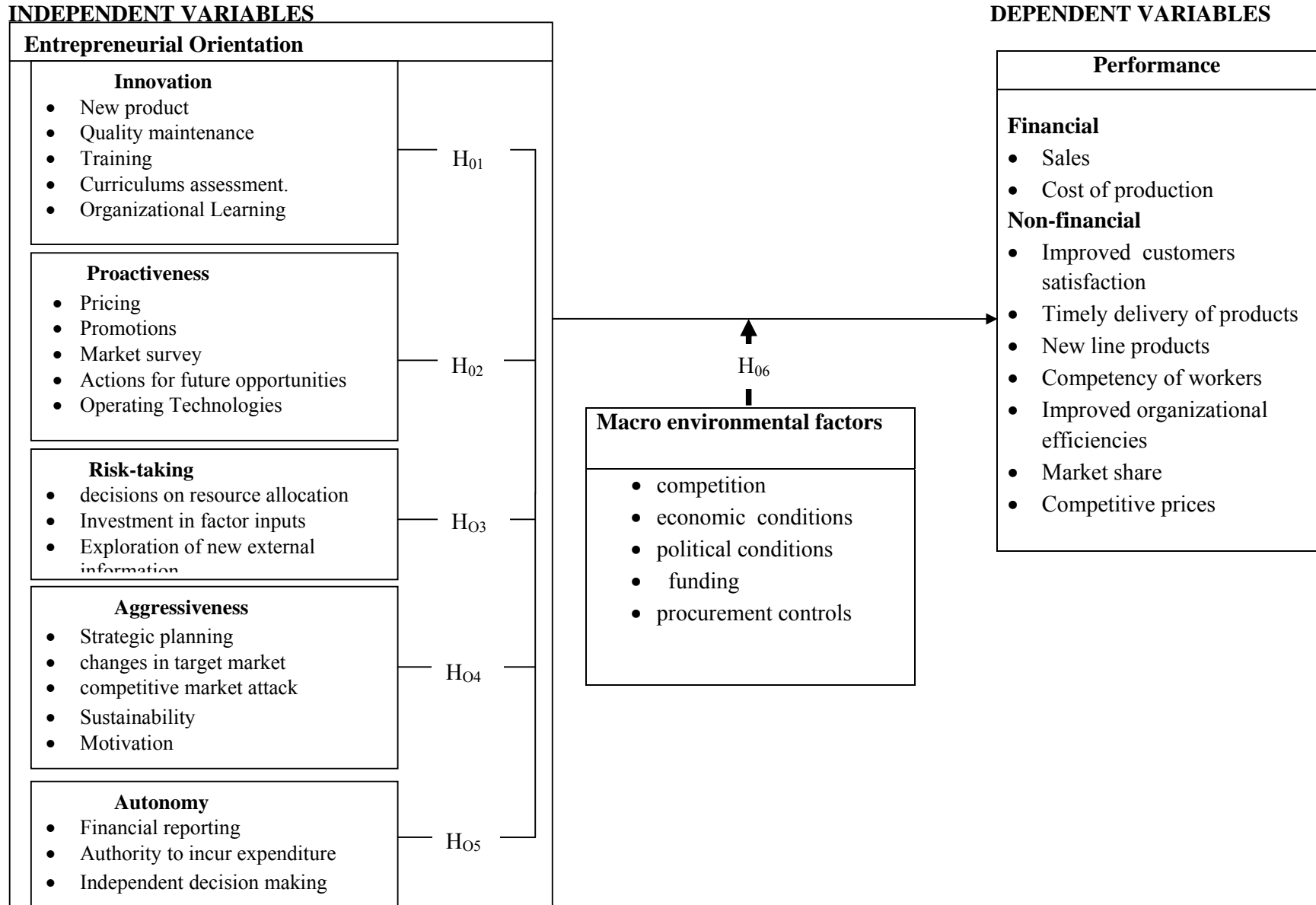
Source: Researcher (2016)

2.5 Conceptual Framework

Prison industry management fall under government- linked enterprise or companies (GLCs). This study considered relationship between entrepreneurial orientation and performance of prison industries and its agricultural farms.

The study proposes three types of variables that is; independent, moderating, and dependent variables. The independent variables consist of five components of EO namely innovation, proactivity, risk-taking, aggressiveness and autonomy. When the dimensions are properly adopted and applied coupled with favorable moderating factor conditions then it leads to increased performance of a firm. The researcher found that there exist a relationship between the independent variables and the dependent variable and that this relationship was moderated by Government related factors and the conditions of the prevailing Macro Environment

Figure 2.1: Conceptual framework



Source: Researcher (2015)

CHAPTER THREE: RESEARCH METHODOLOGY

3.1 Introduction

This chapter outlines the study design suitable to the achievement of stated objectives. The methodology used in gathering data is discussed. This chapter is divided into two sections. The first section presents research design. This is followed by a discussion of the procedures used for data collection and analysis.

3.2 Research Design

The study adopted a descriptive survey research. Kothari, (2003) recommends descriptive survey design as it allows the researcher to describe, record, analyze and report conditions that exist or existed. This survey design was considered particularly well suited to researches which study the individual as a unit of analysis as an excellent vehicle in measuring generalization. The purpose of this design according to Ezeani (1998) is to collect detailed and factual information that describes existing phenomena.

3.3 The Target Population of Study

Kombo and Tromp (2006) define a population as a group of individual objects or items from which samples are taken for measurement the targeted population includes individuals in all departments of prison industries in Kamiti Prison. These included prison officers, prisoners, the supporting partners and government departments involved in management of Kenya prisons industrial enterprise. There are 100 stakeholders to the Kamiti Prison Industries. The study was done as a census and the researcher received 76% responses from the above number of stakeholders. The total population is distributed as:

Table 3.1: Target Population

Categories	Expected number of respondents
Facility command	5
Support departments	10
Prison officers	25
Prisoners	50
Government officers	10
Total	100

Source: Prison Service Report 2009

3.4 Sample Size and Sampling Techniques

It's the number of observations in a sample drawn from a sample frame (Evans, 2000). Samples of size n which equal to or greater than 30 or 10% within each group in proportion to what each group bear to the study population must be selected (Mugenda and Mugenda, 1999). In this study however census was employed of 100 individuals.

3.5 Data Collection Instruments

Data were collected using questionnaires. Some questionnaires were self-administered whereas others administered with the assistance of interviewers. The questionnaires covered the following areas as highlighted by the objectives; the relationship between EO innovation, proactiveness, risk taking, aggressiveness, autonomy and performance. Further, government controls and external environmental factors were covered. Questionnaire is preferred tool because; within a short duration of time, it can be administered to a large group of respondent (Kasomo, 2006). The questionnaire had both open-ended and closed questions. Secondary data collected from journals, internet, books and magazines were also used.

3.6 Data Collection Procedure

The researcher identified and approach individuals willing to participate in the interview. These participants were guided on how to fill-in the questionnaires. The researcher administered some of the questionnaires while others were

administered through an agent due to the immobile nature of the researcher. Consequently, notes were taken in cases where respondents had difficulties in filling questionnaires due to illiteracy, communication difficulties or other factors. In such scenarios, the researcher or his agent were very sensitive and conscious enough in order to collect necessary data and issues related to significance.

3.7 Validity

Validity is the extent to which research findings accurately represent what is really happening in a situation. According to Mugenda and Mugenda (1999), Validity is the accuracy and meaningfulness of inferences which are based on the research results. Two areas were identified for pilot test which was done after the development of the draft data collection instruments. These tests were used to validate the tools for use and help improve the instruments. Wiersma (1985) noted that piloting is important as it helps identify misunderstandings, ambiguities and useless or inadequate items. Secondly validity of instrument was enhanced, in a manners that two experts were asked to rate the relevance of the questions to study variables using scale of relevant, quite relevant, somewhat relevant and not relevant. Scores were computed from each expert to determine the level of validity.

3.8 Reliability

According to Cant (2011), reliability refers to the instrument, which measures the repetition of research findings. Reliability enhances dependability, accuracy and adequacy of the instrument through piloting. Mugenda and Mugenda (1999) argue that reliability measure the degree to which a researchers' instrument yields consistent results or data after repeated trials. It's the notions that consistency with which questionnaire [test] items are answered or individual's scores remain relatively the same was determined through the use of SPSS to calculate Cronbach Alpha score. A reliability coefficient of .70 or higher was considered acceptable in most social science research situations. The study adopted this as a cut off to determine whether the research instrument was reliable.

3.9 Data Processing, Analysis and Presentation

The study was guided by objective of the study and was descriptive due to the nature of data collected. All information and data collected were edited and then coded. The descriptive statistics were analysed using mean score and standard deviation which were measured at ratio level using five-point scale (1-5) where mean score are ranked giving the highest score the greatest importance. There after they were subjected to proper analysis using scientific methods and the findings were presented using appropriate format, which included tables, graphs and pie charts. Discussions and recommendations were based on these findings. A statistical package (SPSS) and spreadsheet program (MS- Excel) were used to input, code, present and analyze data.

The inferential statistics to answer the research objective used a multiple linear regression of the form:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + e_i$$

Where Y= Performance of Kamiti main prison industry enterprises.

β_0 = Constant

$\beta_1 - \beta_6$ = Coefficients of independent variables

$X_1 - X_6$ = Independent variables of innovation, proactiveness, risk-taking, aggressiveness, autonomy.

e_i = Error term.

The multiple regression equation for the moderator variable is as follows:

$$Y = \alpha + \beta_1 X + \beta_2 M + \beta_3 XM + \varepsilon$$

Where Y= Dependent value representing performance

X=Independent variables of ($X_1 - X_5$)

M=Moderating effect of macro-environmental factors

β_1 =The effect of X when M is zero (the simple effect of X when M is zero)

β_2 =The effect of M when X is zero

β_3 = How much the effect of X changes as M goes from 0 to 1

ε = Error term

3.10 Ethical Considerations

Confidentiality was maintained at all levels which included dealing with secondary records and the respondents to the interviews or the questionnaires. The researcher obtained permission to conduct the research from the relevant authorities; that is, the prison authority, PHD and MBA Coordinator Kenyatta University. Further the researcher committed to hand over copies of the final work to the same authorities.

CHAPTER FOUR: DATA ANALYSIS, RESULTS AND DISCUSSIONS

4.1 Introduction

The findings of the study were analyzed and presented in this chapter with respect to data obtained from the field. This study was carried out in the month of October 2016 and targeted 100 stakeholders in Kamiti Prison Industry. Data were obtained from 82 respondents. However 6 of the filled questionnaire were considered inconclusive and therefore 76 respondent were used in the data analysis which is considered good in a descriptive survey research design. To summarize the data, they were coded and then subjected to descriptive and inferential analysis using Excel and SPSS.

All Entrepreneurial Orientation items were covered and gauged on five-point Likert scale of 1= 'strongly disagree' to 5= 'strongly agree'. This study developed 40 items to capture the entrepreneurial dimensions that is; innovativeness (INNOV= 6 items), proactiveness (PROAC=5 items), risk-taking (RISK=3 items), competitive aggressiveness (COMPA=5 items), autonomy (AUTO=5 items). Items for moderating external factors of government and macro-environment factors (GOVTM=9 items). Performance (PERF= 7 items) was assessed in a Likert scale ranging from 1= 'Definitely false' to 5= 'Definitely true'. This was achieved through the checking for increased customers over a period of 5 years, increases revenue, reduced customer delivery time, reduced wastage and increased number of new product lines. The results of the analysis are presented in this chapter.

4.2 Reliability of Research Instrument

For internal consistency, a Cronbach's Alpha (α) is considered to be the most popular indicator of internal consistency; the α -values of variables used in this study are shown in Table 4.1 below. Cronbach's Alpha ranges between 0 to 1 and the interpretation is done such that scores above .70 indicate high levels of internal consistency and reliability. In this instance 40 items from the questionnaire of the Likert scale type from the 76 case was subjected to the analysis.

Table4.1: Reliability of Research Instrument summary

Case Processing Summary				Reliability Statistics		
		N	%	Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
Cases	Valid	76	100.0			
	Excluded ^a	0	.0			
	Total	76	100.0	.864	.864	40

a. Listwise deletion based on all variables in the procedure.

Source: Survey Data, 2016.

The above tables represent the summary of the reliability test for the 40 items and show a good reliability test of above 0.70. Further the table below shows all the other reliability tests considering if an item is deleted from the results.

Table4.2: Reliability results of all research instrument items.

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Make new designs of products	118.61	259.629	.350	.861
Constantly modify the designs of the existing products	117.53	260.466	.406	.859
Constantly maintain the quality of our products and services	117.09	264.431	.281	.862
Constant train both officers attached to the industry and prisoners	118.75	253.817	.499	.857
Constantly review training curriculum for officers and prisoners	119.26	254.916	.560	.856
Emphasize on continuous organisational learning	118.76	256.503	.503	.857
Review our pricing policy according to market forces	118.37	253.089	.574	.855
Constantly carry out promotions and advertisement of our products	118.61	257.282	.494	.858
Constantly conduct market surveys and research on our products	118.87	250.542	.701	.853
Anticipate future business opportunities for our products	118.55	259.344	.456	.858
Adopt new/ modern equipment for doing work	118.78	255.109	.531	.857
Make prudent resource allocation decisions	118.16	264.641	.277	.862

Constantly buy new equipment and raw materials as required	118.04	258.758	.444	.859
Constantly search for new information from outside prison	118.67	254.890	.576	.856
Always have a strategic plan	119.24	260.450	.445	.859
Constantly target new market segments	118.82	262.126	.406	.860
Benchmark with the best producers	118.82	256.846	.400	.860
Ensure that our reputation is high	117.03	264.479	.360	.861
Ensure workers are motivated in [non] financial terms	119.55	262.811	.422	.860
Emphasize on proper financial reporting	118.50	262.280	.291	.862
Ensure that the authority to incur expenditure (AIE) is prudently used	118.26	265.236	.227	.864
Exercise independent decision making.	118.95	260.424	.397	.860
Ensure there is freedom in development of ideas	118.79	261.075	.350	.861
Emphasize on successful implementation of ideas and projects	118.50	252.840	.530	.856
There is adequate funding	118.97	274.319	-.002	.867
There is prolonged bureaucracy in managing the authority to incur expenditure(AIE)	117.08	263.620	.313	.861
There are very stringent procurement controls	117.76	269.143	.142	.865
There is always a possibility of interference by the government	117.43	265.209	.229	.863
There are conflicting instructions from the government	117.70	273.921	-.002	.869
There is high competition for most of our products	117.33	265.290	.345	.861
Our pricing is seriously affected by other producers	117.61	272.802	.058	.866
Our designs are easily imitated by competitors	117.76	273.063	.035	.867
Potential corporate clients have serious budgetary constraints	118.21	271.608	.072	.866
The number of customers has increased	117.55	266.437	.375	.861
The total revenue collections per year have increased	117.47	270.839	.179	.863
The number of customers complaints has reduced	118.14	265.325	.314	.861
Customer orders have been delivered on time	118.14	268.472	.169	.864
Number of defective items has reduced	117.67	265.504	.366	.861
There is minimal wastage	118.12	264.506	.281	.862
The number of new product lines have increased	118.84	259.815	.448	.859

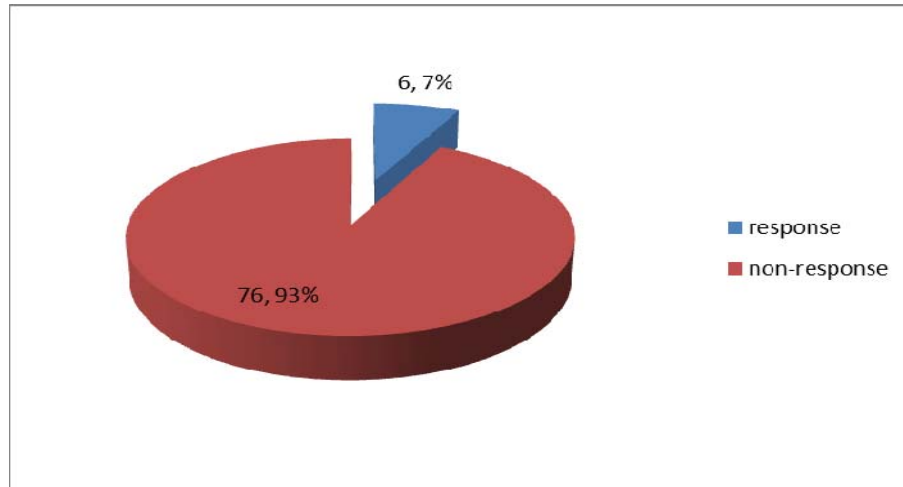
Source: Survey Data, 2016.

The result of the test produced Cronbach's Alpha value of 0.864. The study concluded that the instrument had high internal reliability and consistency. For that reason the researcher used the instrument to collect data now subject to the following analysis.

4.3 Response Rate

The response rate represented 93% are show in the figure 4.1 below which was good in explaining the characteristics of the population under study. According to Mugenda and Mugenda (1999) this response rate was excellent since a response rate of 50% is adequate for analysis and reporting; a rate of 60% is good and a response rate of 70% and over is excellent.

Figure 4.1 : Response Rate



Source: Survey Data, 2016.

4.4 Respondent Bio Data

This section reports on the characteristics of the respondents from whom primary data was obtained. The first section of the questionnaire sought information on the duration of work, and the department the respondents are working in. The profiles of the respondents based on these dimensions are summarized in tables 4.2-4.4

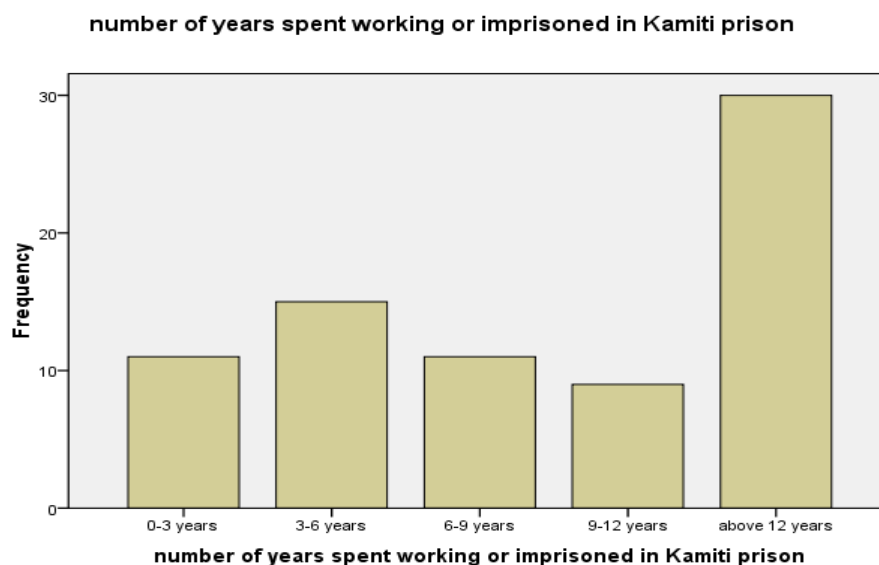
Table4.3: Duration of Work of Respondent at KPE

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0-3 years	11	14.5	14.5	14.5
	3-6 years	15	19.7	19.7	34.2
	6-9 years	11	14.5	14.5	48.7
	9-12 years	9	11.8	11.8	60.5
	above 12 years	30	39.5	39.5	100.0
	Total	76	100.0	100.0	

Source: Survey Data, 2016.

Figure 4.2 show the distribution of the durations spent by the respondent at kamiti prison enterprise.

Figure 4.2 : Duration of Work of Respondent at KPE



Source: Survey Data, 2016.

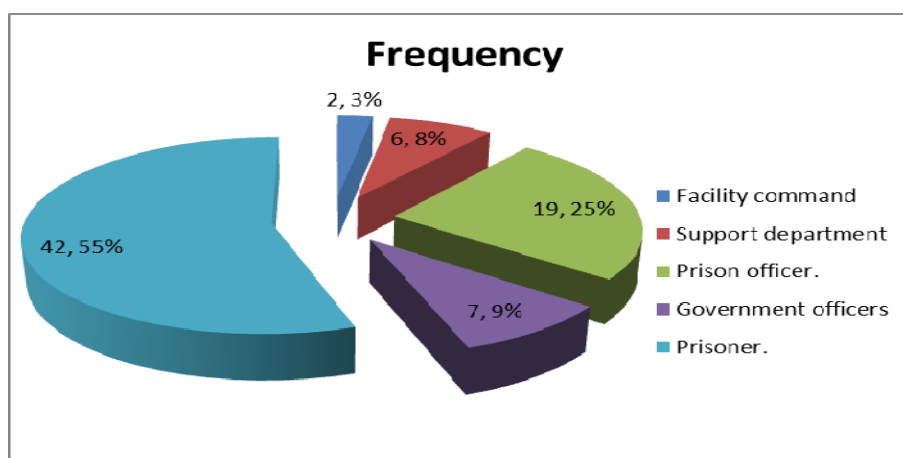
From the above, the respondent amounting to 39.5% had been at this station for more than 12 years and therefore the right people to provide opinion about the activities in the kamiti prison industry. The other categories seem almost equally distributed with individual who have stayed at kamiti industry between 9-12 years recording the lowest at 11.8%.

Table4.4: Designation Departments of Responsibilities within KPE

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	facility command	2	2.6	2.6	2.6
	support department	6	7.9	7.9	10.5
	prison officer	19	25.0	25.0	35.5
	government officer	7	9.2	9.2	44.7
	Prisoner	42	55.3	55.3	100.0
	Total	76	100.0	100.0	

Source: Survey Data, 2016.

Figure 4.3: Distribution of Work Designation within Kamiti Prison’s Enterprise



Source: Survey Data, 2016.

Prisoner being the majority in prison formed the largest portion of the respondent at 55%. This helped to capture adequate information to address EO in KPI.

4.5 Descriptive Analysis

Here the research report presents analyzed data on the descriptive characteristics of the variables investigated by the study. The study had three types of variables, the independent which comprised of five factor analysed variables, the moderating factors and the dependent variables. Data on each variable are presented in a separate Table and the accompanying explanation given.

4.5.1 Entrepreneurial Innovation and Organisation Performance

The section of the questionnaire investigating the Entrepreneurial Innovation and organisation performance had six items. The statements were responded by the valid 76 respondents and the findings are presented in table 4.4 below.

Table4.5: Descriptive Statistics on Entrepreneurial Innovation in KPE

		Make new designs of products	Constantly modify the designs of the existing products	Constantly maintain the quality of our products and services	Constant train both officers attached to the industry and prisoners	Constantly review training curriculum for officers and prisoners	Emphasize on continuous organisational learning
N	Valid	76	76	76	76	76	76
	Missing	0	0	0	0	0	0
Mean		2.68	3.76	4.20	2.54	2.03	2.53
Std. Error of Mean		.143	.120	.121	.143	.123	.125
Mode		2	4	5	2	2	2
Std. Deviation		1.246	1.044	1.059	1.248	1.070	1.089
Skewness		.458	-1.166	-1.447	.647	1.018	.726
Std. Error of Skewness		.276	.276	.276	.276	.276	.276
Sum		204	286	319	193	154	192

Source: Survey Data, 2016.

In the set of questions in this category, constantly review of training curriculum for officers and prisoners scored the lowest at $X=2.03$ and $S.D=1.070$ which was rated as ‘disagree’ while ‘Constantly maintain the quality of kamiti prison products and services’ measured highest at a mean of 4.2, S.D of 1.06 and mode of 5 implying ‘agree’. All other items in this EO dimension of innovation measured as ‘disagree’ meaning that innovation in kamiti prison industry exists at very low proportions or extent.

These findings had been confirmed in a study conducted in Federal Prison Industries (2014) report that found low innovation among the products produced in prison industries at between 10%-15% in USA federal prisons’ industries.

Regardless of the market instability, firms were required to sustain a continuous state of innovativeness because innovation played an important part in determining the performance and success of firms (Hult, 2004).

4.5.2 Proactiveness and Organisation Performance

The proactiveness was measured in the research using five items. The section was responded by the valid 76 respondents. The scores on each item are shown in table 4.5 below.

Table4.6: Descriptive Statistics on Entrepreneurial Proactiveness in KPE

		Review our pricing policy according to market forces	Constantly carry out promotions and advertisement of our products	Constantly conduct market surveys and research on our products	Anticipate future business opportunities for our products	Adopt new/modern equipment for doing work
N	Valid	76	76	76	76	76
	Missing	0	0	0	0	0
Mean		2.92	2.68	2.42	2.74	2.51
Std. Error of Mean		.131	.122	.122	.116	.128
Mode		2 ^a	2	2	2	2
Std. Deviation		1.140	1.061	1.062	1.012	1.113
Skewness		-.008	.394	.727	.238	.412
Std. Error of Skewness		.276	.276	.276	.276	.276
Sum		222	204	184	208	191

a. Multiple modes exist. The smallest value is shown

Source: Survey Data, 2016.

The mean score shows that Kamiti Prison Industry have a relatively low measure of proactiveness as an EO dimension indicated by a score of 2.0 reflecting an attitude of ‘disagree’ of items indicated to measure proactiveness and an average levels of standard deviation of 1.01. Conducting marketing survey and research recorded the lowest mean followed by an important factor of ‘adopting new and modern equipment’ at mean of 2.51 and S.D of 1.1.

Wei-Loon Koe (2015) found that the lower the mean of items measuring proactiveness in government-linking enterprises in Malaysia the lower the level of sales and growth. He found 11% change in performance of a government-linked firm as a result of change in proactive measures. Study by Casillas and Moreno (2010) indicated that higher proactiveness promotes higher growth rate in sales, simply because firms are more aggressive in searching and capturing business opportunities.

4.5.3 Risk-taking and Organisation Performance

The risk-taking was measured in the research using three items. The section was responded by the valid 76 respondents. The scores on each item are shown in table 4.6 below.

Table4.7: Descriptive Statistics on Entrepreneurial Risk-taking in KPE

		Make prudent resource allocation decisions	Constantly buy new equipment and raw materials as required	Constantly search for new information from outside prison
N	Valid	76	76	76
	Missing	0	0	0
Mean		3.13	3.25	2.62
Std. Error of Mean		.120	.123	.120
Mode		4	4	2
Std. Deviation		1.050	1.072	1.045
Skewness		-.696	-.587	.396
Std. Error of Skewness		.276	.276	.276
Sum		238	247	199

Source: Survey Data, 2016.

The mean scores for this EO dimension show that the Kamiti prison industry has conflicting attitude toward the level of application of risk-taking as all the indicators of risk taking had a mean scores of 3.0, level of standard deviation of about 1.0, and a mode of 4. The perception of risk-taking was spread widely between the prison officers and prisoners and that explain the results above. However the respondents were categorical about ‘constantly searching for new

information from outside the prison’ at mode of 2 meaning majority of the respondent disagreed with the statement.

Aidati (2010) found low risk taking orientation in Uganda prisons industries as the reason for its overall low performance. Wei (2015) found a direct and distinct effect of this EO dimension on financial performance of a firm. He found that a change in risk taking caused 33% change in firm performance. Soininen (2012a) concluded that the higher the risk-taking orientation the higher the firms’ profitability.

4.5.4 Aggressiveness and Organisation Performance

The entrepreneurial aggressiveness was measured in this study using five items. The section was responded by the valid 76 respondents. The scores of each item are shown in table 4.7 below.

Table4.8: Descriptive Statistics on Entrepreneurial Aggressiveness in KPE

		Always have a strategic plan	Constantly target new market segments	Benchmark with the best producers	Ensure that our reputation is high	Ensure workers are motivated in [non] financial terms
N	Valid	76	76	76	76	76
	Missing	0	0	0	0	0
Mean		2.05	2.47	2.47	4.26	1.74
Std. Error of Mean		.111	.107	.149	.098	.098
Mode		2	2	1	4 ^a	1
Std. Deviation		.965	.931	1.301	.854	.854
Skewness		.808	.741	.358	-1.331	1.199
Std. Error of Skewness		.276	.276	.276	.276	.276
Sum		156	188	188	324	132

a. Multiple modes exist. The smallest value is shown

Source: Survey Data, 2016.

The items measuring aggressiveness showed that ‘ensuring that kamiti industry retains the high reputation’ recorded high among the respondents at a mean score of 4.26 and a mode of 4. However, two important aspect of firm performance of ‘having a strategic plan recorded, motivation and benchmarking recorded low

mean score of 2.05, 1.74, and 2.47 respectively'. It's clear therefore from records that there is an issue of lack of both monetary and non-monetary motivating factors among the workers in kamiti prison industry.

The study by Wei (2015) found 42% change in performance as a result of change in competitive aggressiveness of a firm. Madhoushi (2011) said that researchers who have included this dimension in their EO construct have confirmed its impact on firms' innovation performance. It's therefore show the existence of positive effect of aggressiveness.

4.5.5 Autonomy and Organisation Performance

The entrepreneurial autonomy was measured in this study using five items. The section was responded by the valid 76 respondents. The scores on each item are shown in table 4.8 below.

Table4.9: Descriptive Statistics on Entrepreneurial Autonomy in KPE

		Emphasize on proper financial reporting	Ensure that the authority to incur expenditure (AIE) is prudently used	Exercise independent decision making.	Ensure there is freedom in development of ideas	Emphasize on successful implementation of ideas and projects
N	Valid	76	76	76	76	76
	Missing	0	0	0	0	0
Mean		2.79	3.03	2.34	2.50	2.79
Std. Error of Mean		.139	.134	.122	.130	.142
Mode		4	4	2	2	4
Std. Deviation		1.215	1.166	1.065	1.137	1.236
Skewness		-.133	-.467	.562	.419	-.151
Sum		212	230	178	190	212

Source: Survey Data, 2016.

On the issue of autonomy emphasis to ensure that the authority to incur expenditure (AIE) is prudently used and proper financial reporting took the lead at a mean of 3.03, 2.79 and the mode of 4 respectively. This means that the majority attitude on this item was that they agreed to the statement. The issue of authority

to incur expenditure was not well understood as the responded felt that it was used properly but worked against achieving the objectives of the industry. Further, freedom of developing ideas and implementing them responded low attitude of mean score of 2.5 and 2.79 respectively meaning majority of the respondent disagreed with the statement.

The significant positive relationship between autonomy and firms performance has been confirmed by Awang (2009). According to Wei (2015) the high the mean of items measuring the variable of autonomy the higher the attitude among the stakeholders and the high the overall performance of government-linked enterprises. Morgan (2007) reported 19% change in performance of a firm as a result of change in items measuring autonomy of that particular firm.

4.5.6 Macro Environmental Factors

The effect of moderating factor of government control and environmental factors was measured in the research using nine items. The section was responded by valid 76 respondents. The scores on each item are shown in table 4.9 below.

Table4.10: Descriptive Statistics on effect of Government Policy in KPE

Descriptive Statistics					
	N	Sum	Mean		Std. Devn.
	Statistic	Statistic	Statistic	Std. Error	Statistic
There is adequate funding	76	176	2.32	.113	.983
There is prolonged bureaucracy in managing the authority to incur expenditure(AIE)	76	320	4.21	.119	1.037
There are very stringent procurement controls	76	268	3.53	.122	1.064
There is always a possibility of interference by the government	76	293	3.86	.133	1.163
There are conflicting instructions from the government	76	273	3.59	.134	1.168
There is high competition for most of our products	76	301	3.96	.094	.824
Our pricing is seriously affected by other producers	76	280	3.68	.099	.867
Our designs are easily imitated by competitors	76	268	3.53	.115	1.000
Potential corporate clients have serious budgetary constraints	76	234	3.08	.121	1.055
Valid N (listwise)	76				

Source: Survey Data, 2016.

This part found that among the moderating variables affecting performance, prolonged bureaucratic processes in managing IEA recorded the highest. Meaning that respondent believed that bureaucracy affect speedy procurement processes and efficiency hence lack of timely production. Also constrained budget of corporate client affect the number of sales made. Respondent were indifferent as to whether the industry have inadequate funding. This was mainly because government uses budgetary accounting system and the concern was whether application of enough funds is done by the responsible departments or not. Further the establishment of the Prison Industry Enterprise fund was set up to address some of these problems.

Aidati (2010) found government control as a major factor to the efficacy of prison industries in Uganda. He found that government can either have positive or negative effect on the performance of prison industries. He concluded that government control explained 50% of performance of Prisons Industries Workshops using three items i.e. funding, standards, rewards and punishment. These confirm the findings of this study.

4.5.7 Prison Industry Performance

Prison industry performance was measured as the dependent variable of the study. The study identified seven items indicative of performance associated with entrepreneurial orientation of the industry. They were measured in terms of the degree to which the kamiti industry has attained desired results on each area in a scale of 1-5. The findings are presented in table 4.10.

Table4.11: Descriptive Statistics on Prison Industry Performance

		The number of customers has increased	The total revenue collections per year have increased	The number of customers complaints has reduced	Customer orders have been delivered on time	Number of defective items has reduced	There is minimal wastage	The number of new product lines have increased
N	Valid	76	76	76	76	76	76	76
	Missing	0	0	0	0	0	0	0
Mean		3.74	3.82	3.14	3.14	3.62	3.17	2.45
Std. Error of Mean		.078	.077	.102	.118	.088	.121	.115
Mode		4	4	3	4	4	4	2
Std. Deviation		.681	.668	.890	1.029	.765	1.051	.999
Skewness		-1.442	-.325	.058	-.147	-1.053	-.282	.809
Std. Error of Skewness		.276	.276	.276	.276	.276	.276	.276
Sum		284	290	239	239	275	241	186

Source: Survey Data, 2016.

The number of customers of kamiti prison industries has increased drastically for the last 5 years, so are the revenues collected. This was explained by the establishment of the new constitution which created several offices and devolved

governments that have become source of new market for prison industry products. However the increase in the number of product line remained very low at a mean attitude of 2.45 meaning ‘disagree’ with the statement that suggested increase in product lines.

This was the dependent variable in this study. As Aidati (2010) found out performance is affected by several factors and can be assessed by both qualitative and quantitative factors. Increase in sales suggests positive change in performance of prison industries. Wei (2015) study demonstrated that being entrepreneurial did affect the performance of government-linked enterprises. Thus the above results conform to similar findings by Moreno (2010).

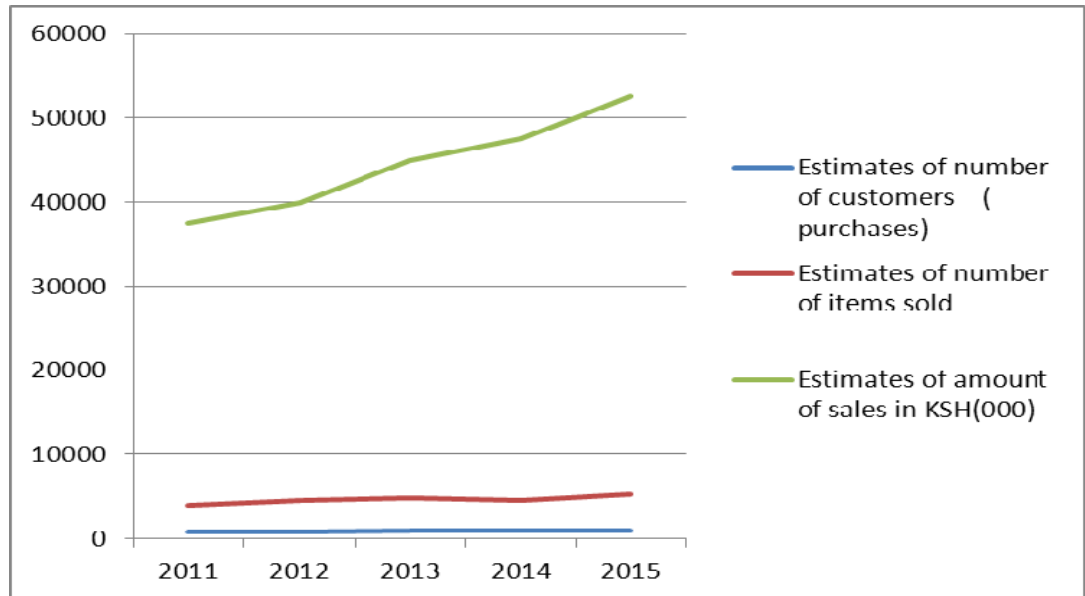
The increase in customers and revenues are confirmed by secondary data collected from the industry from year 2011 to year 2015 as indicated in the table 4.11 below.

Table4.12: Kamiti Prison Industry Production Data.

	2011	2012	2013	2014	2015
Estimates of number of customers (purchases)	800	840	895	925	1002
Estimates of number of items sold	3,950	4,500	4,750	4,500	5,275
Estimates of amount of sales in KSH(000)	37,500	40,000	45,000	47,500	52,500

Source: Kamiti Prison Industry records 2016

Figure 4.4 : The Production Data of Kamiti Prison’s Enterprise



Source: Kamiti Prison Industry Records 2016

From the graph above the statistics shows that there has been a steady rise in the revenue, customers and number of items sold over the last five years. This is mainly contributed to among other things the contract work from county government after new constitution 2010.

4.6 Inferential Analysis

This section of the study reports findings on the inferential analysis of the data. The study performed this analysis to answer the research questions identified in chapter one of the study. To perform this analysis, the data obtained were transformed into an aggregate score for each variable for the valid 76 respondents.

The aggregate scores for each variable were then used to run linear multiple regression analyses to determine the relationship among the variables presented in the conceptual framework. The analysis was logically performed to test for the relationship between the independent and dependent variable after which the influence of the moderating variable was assessed. The findings are summarized in corresponding tables and interpretations for each regression test provided.

Table4.13: Correlation of Independent Variables

	Innovation	Proactiveness	Risk-taking	Aggressiveness	Autonomy	Govt_envirnt	Performance
Innovation	1	.714	.318	.591	.226	.131	.399
Proactiveness	.714	1	.078	.623	.369	-.092	.492
Risk-taking	.318	.078	1	.134	.218	.280	.064
Aggressiveness	.591	.623	.134	1	.368	.085	.428
Autonomy	.226	.369	.218	.368	1	.194	.188
Govt_envirnt	.131	-.092	.280	.085	.194	1	-.212
Performance	.399	.492	.064	.428	.188	-.212	1
N	76	76	76	76	76	76	76

Source: Survey Data, 2016.

The table above was used to reveal the correlation between variables by identifying the strength and the direction of the relationship between two variables. Pearson product correlation coefficient (r) was determined (Pallant, 2011). The value of r should range from 0 for no relationship to 1 perfect relationship. Elifson (1998) explained that, for value r ranging from 0.01 to 0.3, the relationship is considered weak, from 0.31 to 0.70 the value r is considered moderate and from 0.71 to 0.99 it's considered strong relationship. R-value above 0.70 they should be considered to have the problem of multicollinearity. In our case therefore, none of the relationship had r value of more than 0.65 and as such no multicollinearity issue or redundancy among the variables (Pallant, 2011). We can deduce moderate relationship from our EO dimensions in this study apart from risk taking and autonomy which recorded 0.064 and 0.188 respectively which is considered weak. Government interventions recorded inverse relationship with performance explained by the wide range of influence it has in on prison industries.

Ujwary-Gil (2013) found significant relationships existed between pairs of independent variables, except between INNO -PROA and RISK- AUTO. In terms of relationships between independent and dependent variables, all relationships were found to be statistically significant at p-value < 0.05. In other words, INNO (r = 0.46), PROA (r = 0.18), RISK (r = 0.55), COMP (r = 0.64) and AUTO (r = 0.33) were found to be significantly and positively correlated to PERF. Based on the

suggestion by Elifson (1998), all strengths of relationships between PERF and EO dimensions were moderate, except for PROA which was weak.

4.6.1 Relationship between EO Dimensions and KPI Performance

The six objectives aimed at assessing the relationship between the entrepreneurial orientation and the performance of kamiti prison industry. Multiple regression analysis was performed to test the six hypotheses to find the above relationship. Multiple regression analysis was considered appropriate in this study because it hypothesized that more than one independent variable explained the variance in the dependent variable. A regression analysis was done on each of the indicators of the EO on performance and a composite index of the EO was computed which was then regressed on the equation model. The result could also be the same if one regress all the items although there will be slightly difference in results due to multicollinearity. The findings are presented in table 4.14 to 4.8 below. The results of the regression analysis are summarized thereafter.

Table4.14: Regression Analysis of Innovation on Performance.

Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.359 ^a	.129	.118	.46419	2.190

a. Predictors: (Constant), Innovation

b. Dependent Variable: Performance

Source: Survey Data, 2016.

The above table represent the effect of innovation on performance of Kamiti prison's enterprise. The effect represented by value R^2 shows a positive effect at 13% of performance is affected by innovation of the items tested.

Table4.15: Regression Analysis of Proactiveness on Performance.

Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.492 ^a	.242	.241	.44079

a. Predictors: (Constant), Proactiveness

b. Dependent Variable: Performance

Source: Survey Data, 2016.

Proactiveness effect on performance as indicated to have R^2 at 0.242 at $P < .01$ which represent 24% of performance on changing one unit of items tested in this dimension.

Table4.16: Regression Analysis of Risk-taking on Performance.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.219 ^a	.048	.04	.50516

a. Predictors: (Constant), Risk-taking

b. Dependent Variable: Performance

Source: Survey Data, 2016.

Risk-taking dimension show low response to performance at $R^2 = .048$. Meaning a unit change of items tested result to 4% change in performance.

Table4.17: Regression Analysis of Aggressiveness on Performance.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.428 ^a	.244	.222	.45740

a. Predictors: (Constant), Aggressiveness

b. Dependent Variable: Performance

Source: Survey Data, 2016.

On competitive aggressiveness the summary shows R squared as 0.244. These translate to 24.4% effect this dimension on performance.

Table4.18: Regression Analysis of Autonomy on Performance.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.188 ^a	.035	.032	.49716

a. Predictors: (Constant), Autonomy

b. Dependent Variable: Performance

Source: Survey Data, 2016.

The above table represents the effect of autonomy on performance of KPE. It reveals the value of R squared as 0.035 or 3% effect on performance when regression is done on item by item.

The model summary represents the extent to which all the five Entrepreneurial Orientation dimensions explain the dependent variable of performance excluding the moderating effect. The composite index of all the five indicators of EO on performance calculated from the adjusted R squared at an aggregate of 0.653 of all EO dimensions is equal to 65.3% which explains their effect on performance of Kamiti Prison's enterprise.

The combination of all items and running a multiple regression analysis produces almost similar results as shown below by the standardized coefficients of Beta.

Table4.19: Coefficients of direct effect of EO Dimensions on Performance

Model		Unstandardized Coefficients		Standardized Coefficients	t	sig
		B	Std. Error	Beta		
1	(Constant)	1.720	.285		6.041	.000
	Innovation	.025	.118	.035	.209	.019
	Proactiveness	.218	.103	.353	2.119	.000
	Risk_taking	.003	.071	.004	.038	.017
	Aggressiveness	.163	.116	.196	1.409	.498
	Autonomy	.015	.075	.023	.199	.219

Source: Survey Data, 2016.

The relationship between the EO and performance was statistically significant. The output also proved that all five dimensions of EO significantly and positively with an exception of moderating factors influenced performance of kamiti prison industry.

Therefore the model as the study had proposed takes the following values;

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \beta_6 X_6 + e_i$$

$$Y = 1.72 + 0.035 X_1 + 0.353 X_2 + 0.004 X_3 + 0.2 X_4 + 0.023 X_5 + 0.45$$

Wei (2015) when studying the effect of EO on performance of government-linked enterprises found relationship between the five dimensions of EO and performance such that all the five dimensions in EO, in which COMP ($\beta = 0.42$, $p < 0.01$), RISK ($\beta = 0.33$, $p < 0.01$), INNO ($\beta = 0.31$, $p < 0.01$), AUTO ($\beta = 0.19$, $p < 0.01$) and PROA ($\beta = 0.11$, $p < 0.05$) significantly and positively influenced the

performance of GLCs. In addition, the most important EO dimension which affected the performance of GLCs was competitive aggressiveness (COMP).

4.6.2 Relationship Between Dependent Variable and Moderating Factors

The second regression analysis test was performed to determine the relationship between the moderating factors and the dependent variable.

Table4.20: Correlations Between Dependent Variable and Moderating Factors

		Innovation	Proactiveness	Risk_taking	Aggressiveness	Autonomy	Govt_envirnt
Innovation	Pearson Correlation	1	.714	.318	.591	.226	.131
	Sig. (2-tailed)		.000	.005	.000	.050	.259
Proactiveness	Pearson Correlation	.714	1	.078	.623	.369	-.092
	Sig. (2-tailed)	.000		.504	.000	.001	.427
Risk_taking	Pearson Correlation	.318	.078	1	.134	.218	.280
	Sig. (2-tailed)	.005	.504		.249	.058	.014
Aggressiveness	Pearson Correlation	.591	.623	.134	1	.368	.085
	Sig. (2-tailed)	.000	.000	.249		.001	.467
Autonomy	Pearson Correlation	.226	.369	.218	.368	1	.194
	Sig. (2-tailed)	.050	.001	.058	.001		.092
Govt_envirnt	Pearson Correlation	.131	-.092	.280	.085	.194	1
	Sig. (2-tailed)	.259	.427	.014	.467	.092	
	N	76	76	76	76	76	76

Source: Survey Data, 2016.

The table shows the correlation between moderating factor of macro environmental factors on one hand and EO dimensions in Kamiti prison industry on the other hand. The correlation is as follows innovation= 0.13, proactiveness =

-0.1, risk-taking=0.28, aggressiveness=0.09 and autonomy=0.09. This means there exist no multicollinearity among the variables.

The multiple regression equation for the moderator variable is as follows:

$$Y = \alpha + \beta_1 X + \beta_2 M + \beta_3 XM + \varepsilon$$

To perform regression analysis of moderating factors, Baron and Kenny (1986) laid out several requirements that must be met to form a true mediation relationship. A multiple 3 stage steps are used to evaluate the effect of moderating factors. MacKinnon et al., (2002) describe rules in relation to sample size such that a sample size of 1000 is required to detect a small effect, a sample size of 100 is sufficient in detecting a medium effect, and a sample size of 50 is required to detect a large effect.

Step 1: Regress the dependent variable on the independent variable to confirm that the independent variable is a significant predictor of the dependent variable.

Table4.21:Regression Analysis of Independent and Dependent Variables

Model Summary						
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics	
					R Square Change	F Change
1	.808 ^a	.653	.649	.44551	.653	5.106

Source: Survey Data, 2016.

Step 2: involves regressing the moderator on the independent variable to confirm that the independent variable is a significant predictor of the mediator. If the mediator is not associated with the independent variable, then it couldn't possibly mediate anything.

Table4.22: Regression Analysis of Independent and Moderating Variables.

Model Summary							
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics		
					R Square Change	F Change	Sig. F Change
1	.423 ^a	.179	.120	.50107	.179	3.055	.015

- a. Predictors: (Constant), Autonomy, Risk_Taking, Innovation, Aggressiveness, Proactiveness

The analyses below were designed to show the relationship between five EO dimensions and the moderating factors. There is positive correlation between the items and no multicollinearity meaning there does not exist some redundancy among the variables within the extended variables. Further from adjusted R2 we get 12% of the government and environment factors are explained by the EO dimensions.

Table4.23: Constant and Coefficients of Moderated Independent Variables

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.766	.320		8.635	.000
	Innovation	.236	.133	.312	1.773	.081
	Proactiveness	-.305	.116	-.465	-2.636	.010
	Risk_taking	.102	.079	.155	1.280	.205
	Aggressiveness	.074	.130	.084	.571	.570
	Autonomy	.158	.084	.231	1.871	.066

a. Dependent Variable: Govt_Envirnt

Source: Survey Data, 2016.

Step 3: involves regressing the dependent variable on both the mediator and independent variable to confirm that the mediator is a significant predictor of the dependent variable, and the previously significant independent variable in Step 1 is now greatly reduced, if not non-significant.

Table4.24:Regression Analysis of all Types of Variables

Model Summary							
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics		
					R Square Change	F Change	Sig. F Change
1	.561 ^a	.314	.255	.43405	.314	5.274	.000

a. Predictors: (Constant), Govt_Envirnt, Aggressiveness, Risk_Taking, Autonomy, Innovation, Proactiveness

Source: Survey Data, 2016.

The summary table above shows clearly the effect of moderating effect of macro environment factors on performance whenever there is a change in independent variable

Table4.25: Coefficients of EO Dimensions and Moderating Effect on Performance

Model		Coefficients ^a				
		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.344	.399		5.879	.000
	Innovation	.078	.118	.109	.661	.051
	Proactiveness	.149	.105	.242	1.420	.016
	Risk-taking	.026	.070	.041	.367	.714
	Aggressiveness	.180	.113	.216	1.591	.016
	Autonomy	.021	.075	.032	.276	.078
	Govt_envirnt	-.226	.104	-.240	-2.178	.033

a. Dependent Variable: Performance

Source: Survey Data, 2016.

The analyses here now give the final model which includes the effect of both independent variables and moderating factors on dependent variable. The multiple regression model become as follows:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \beta_6 X_6 + e_i$$

$$Y = 2.34 + 0.12 X_1 + 0.24 X_2 + 0.041 X_3 + 0.22 X_4 + 0.032 X_5 - 0.24 X_6 + 0.43$$

These correspond to the finding of Wei (2015) but add what he recommended for further research that is; inclusion of moderating factors into the equation. Aidati (2010) suggested significant influence of government involvement in prison industries on performance has been confirmed. The influence by external macro-economic factors and government involvement is negative at -24% on performance.

Table 4.26: Summary of the Moderating Effect

parameters	Model 1	Model 2	Model 3	Change	observation	conclusion
	Direct r/ship	Moderator alone	Independent and moderation	Caused by moderation		
$\beta_{\text{innovation}}$	0.035	.312	0.109	-0.108	R/ship is stronger	Evidence of +ve moderation
$\beta_{\text{proactiveness}}$	0.353	-.465	0.242	0.111	R/ship is weaker	Evidence of +ve moderation
$\beta_{\text{risk-taking}}$	0.004	.155	0.041	-0.033	weaker r/ship	Evidence of +ve moderation
$\beta_{\text{aggressiveness}}$	0.196	.084	0.216	-0.02	Stronger r/ship	Evidence of +ve moderation
β_{autonomy}	-0.023	.231	0.32	-0.343	Stronger r/ship	Evidence of +ve moderation
$\beta_{\text{moderator}}$	0		-0.240	-0.240		
R^2	0.67	0.179	0.653	-0.017	Strength of overall r/ship is reduced by 0.014	Evidence of overall reduced -ev moderation.
F	5.106	3.055	5.275	-0.169		The regression mode is significant
P	0.000	0.015	0.000	0.000		The test is significant

Source: Survey Data, 2016.

4.7 Discussions

Statistical analysis performed in the study found that the entrepreneurial orientation dimensions significantly and positively influenced the performance of Kamiti Maximum Prison industry. In particular proactiveness and competitive

aggressiveness were identified as the most important factors. They recorded a positive influence of β_2 and β_4 of 0.24 and 0.22 respectively. On proactiveness, the study recorded low opinion on all the five items at a mean of between 2.42 to 2.9 and the coefficient in the multiple regression model of 0.242. This is due to the fact that even though it's difficult to evaluate benefit of research, survey, promotions and advisement. Identifying opportunities and exploiting them to the maximum increases sale and carry along with this improvement in all sectors of firm. The issue of market survey and research of kamiti product which recorded the lowest average need to be enhanced so as to make informed market decisions. This also include taking advantage of opportunities that comes up coupled with adjusting production in relation to what market forces dictate.

As Lumpkins and Dess (1996) noted, the competitive aggressiveness plays a very vital role in ensuring that an enterprise outperform the rivals in the industry. The study found out low opinion on the availability on a comprehensive strategic plan. Even if it does exist, its expectation and implementation have not been well communicated to all relevant stakeholders. The low score on benchmarking at 2.5 shows that the kamiti industry need to do more on benchmarking with the best practices in the industry. High reputation of prison industry products can be improved and protected. The low morale at an average of 1.74 as revealed from the study need to be addressed. This is so because it proved to be an issue of concern from all respondents.

Innovativeness as evidenced by Soininen (2012), Casillas and Moreno (2011) as an important determination of firms performance. There is very low adaptation of this dimension in the Kenya prisons industry as this study found. The low level of training among the prisoners and low level of organisational learning seem to affect the rate of innovation because what exists is modification of existing products without necessarily designing new products. Review of training curriculum recorded very low outcome from the study at mean of 2.03. Kamiti Prison Industry needs to build on the advantage that they are able to produce and maintain high quality products.

Autonomy on the other hand was identified as the next as the fourth most influential factor in kamiti industry and as such free hand in making decision

seems to affect the performance of the industry. Financial reporting record more than average, so was the prudence in authority to incur expenditure(AIE), however procurement of new machinery was discovered as a serious challenge in addressing modernization of the industry. The enterprise need to exploit the provisions of law 'exchequer and audit (prison industry fund) regulations, 1988[L.N.324/1998] to overcome the stringent procurement controls currently in operation. The study found minimal exercise of freedom of ideas, low successful implementation of such ideas at mean of 2.7. This negated the whole ideas of autonomy as discussed by Lumpkin and Dess (1996) in promoting EO on performance of a firm.

Risk taking took the next important EO dimension which influenced the performance of kamiti prison industry enterprise. The findings support Soinin (2012), Hameed and Ali (2011) in which they suggested that assuming risk is related to firms' performance. This means that risks and return are closely related to each other. Prison enterprises being an enterprise backed by government must find it easy to make investment whenever new opportunities are identified. The study found that although resource allocation decision were prudently done at a mean of 3.13, there was a problem in buying new equipment coupled with low uptake of technology to improve on production and cut operational costs. Looking for new information was found to be low at a mean of 2.62. This affected how the industry keeps up with the market trends.

The government controls and external macro-economic factors influence at most 24% of the performance and therefore this is significance. Respondents reported high levels of effect of these moderating factors on performance of kamiti prison industry. Bureaucratic procurement procedures and use of AIE, government interference coupled with issuance of conflicting instructions in the operation of industry affect how the industry performed. Some of the very old colonial government rules are still operational failing to make recognition of the fact that the country and the society at large have make strides in self-determination, capacity and development.

CHAPTER FIVE: SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter presents the summary of the findings, conclusions from the study and recommendations thereof.

5.2 Summary of Findings

This section provides a summary of the research findings based on the main objective which was to investigate the effect of the Entrepreneurial Orientation on performance of Kenya Prison Enterprises.

First, the study was to assess the effect of Entrepreneurial Innovation and performance of Kamiti Prison Enterprise. The regression analysis on this indicator recorded a value of $R=0.36$, $R^2=0.129$ at $P<0.01$. This is a moderate value of r^2 with a low p value and hence the model explains variation within the data and is significant. The study rejects the null hypothesis (H_0) and accept alternative hypothesis (H_1) that there is significant effect of innovation on performance of Kamiti Maximum Prison Enterprise.

Second, the study examined the level of entrepreneurial proactivity and performance of Kamiti Prison Enterprise. The regression analysis on this indicator recorded a value of $R=0.492$, $R^2=0.242$ at $P<0.01$. This is a moderate value of r^2 with a low p value and hence the model explains variation within the data and is significant. The study rejects the null hypothesis (H_0) and accept alternative hypothesis (H_1) that there is significant effect of proactiveness on performance of Kamiti Maximum Prison Enterprise.

Third, the study investigated the effect of the levels of risk-taking activities on performance of Kamiti Prison Enterprise. The regression analysis on this indicator recorded a value of $R=0.219$, $R^2=0.048$ at $P<0.01$. The value of r^2 is low coupled with a low p value this means the model explains some variation within the data and it is significant. The study rejects the null hypothesis (H_0) and accept alternative hypothesis (H_1) that there is significant effect of risk-taking on performance of Kamiti Maximum Prison Enterprise. .

Fourth, the study assessed the effect of aggressiveness on performance of Kamiti Prison Enterprise. The regression analysis on this indicator recorded a value of $R=0.428$, $R^2=0.244$ at $P<0.01$. This is a moderate value of r^2 with a low p value and hence the model explains variations within the data and is significant. The study rejects the null hypothesis (H_0) and accept alternative hypothesis (H_1) that there is significant effect of aggressiveness on performance of Kamiti Maximum Prison Enterprise.

Fifth, there was significant relationship between autonomy and performance of Kamiti Prison Enterprise. The regression analysis on this indicator recorded a value of $R=0.118$, $R^2=0.035$ at $P<0.01$. Here although value of r^2 is low with a low p value, the model explains some variation within the data and is significant. The study rejects the null hypothesis (H_0) and accept alternative hypothesis (H_1) that there is significant effect of autonomy on performance of Kamiti Maximum Prison Enterprise.

Finally, the study determined the effect of the moderating effect of government policy and macro-environmental factors on the relationship between entrepreneurial orientation dimensions and performance of Kamiti Prison Enterprise. The regression analysis on this indicator recorded a value of $R=-0.49$, $R^2=0.24$ at $P<0.01$. The negative value r and moderate value of r^2 with low p value and hence the model explains variation within the data and is significant. The study accepts the null hypothesis (H_0).

5.3 Conclusion from the Findings

The main aim of the study was to investigate the effect of the Entrepreneurial Orientation dimensions on performance of Kamiti Prison Industries. It was found that four out of five EO dimensions have significant influence on kamiti prisons industry. On the first objective of the study, the study concludes that lack of constant review of training curriculum and low levels of training affect the performance of the Kamiti prison's enterprise most.

The second objective was to examine the effect of proactivity on performance of Kamiti Prison Enterprise. Here the study noted low levels of buying of new

machineries coupled with lack of market research and survey which contributed significantly to how the prison enterprise performed.

The third objective was risk-taking which had a significance value of not more than 0.05. Here the effect of risk-taking obtained low significance on performance of KPE. The study concluded constant search for new information from outside prison contributed significantly to the performance of the prison enterprise.

The fourth objective was to assess the effect of competitive aggressiveness on performance of Kamiti Prison Enterprise. The study concludes that officers and prisoners are not motivated both on non-financial and financial motivations. More importantly in this objective the study found lack of comprehensive strategic plan as a contributor to performance of KPE.

Fifth objective was to assess the effect of entrepreneurial autonomy on performance of PKE. The level of applicability of autonomy was occasioned by lack of room to exercise independent decision and unclear methods of on proper financial reporting.

Government involvement and other environmental factors produced a negative relationship on performance of KPE. The study concluded that bureaucracy and imitation of products from kamiti prison enterprise affected performance most.

5.4 Recommendations of the Study

5.4.1 Recommendations for Policy and Practice

Based on the research findings, the study makes the following recommendations: On innovation the study recommends an increase training opportunities for prison officers and inmates through increasing numbers of industry certification offered and pursue funding through grant opportunities to increase training and job placement opportunities for inmates. The training curriculum needs to be enhanced and evaluated on constant basis. Annual customer service training should be provided to staff. Implement new product development by creating new product development teams that should get new product ideas from vendors and customers. The teams should evaluate new product ideas on legality, cost, benefit

and opportunities prior to approval. Leadership training, improvement on internal processes and communications through professional business culture, standardized reporting, staff meetings and correspondences

In regards to proactiveness, the study recommends adoption of modern equipment with regular upgrades, invests in research and market surveys to promote sales. Increase market share through identifying market size and penetration which can be achieved by conducting constant market analysis and working with legislators to focus on legislations that increases market base such as adopting more projects like number plate production, county government contracts, armed forces uniforms and review current procurement laws that hinder efficient procurement processes. Develop promotion materials for customer awareness, value and benefit of its products. Create inventory benchmark for raw materials, finished products, increase purchasing efficiencies and establish pricing strategy.

On risk-taking, the study recommends a constant view of obtaining new information from the outside world. On matters of aggressiveness, the study recommend that the Kenya Prison Enterprise should develop and adopt a working customer oriented strategic plan. To achieve these, KPI need to satisfy the expectation of consumers of its product. Obtain Customer Satisfaction rating through Capturing, tracking and monitoring customer data through a computer system. Improve delivery times through on time delivery schedule and the use of technology to enhance customer experience. Improve industry efficiency by improving morale of prison officers and inmates through comprehensive workforce and recognition plans. Officers and prisoners who come up with successful new products ideas should be recognized through rewards, bonuses etc. Weakness in performance should be reprimanded to reduce inefficiency. Observation of time line should be observed all the time. The team should also develop punishment procedures for non- performances

Finally, Maintain financial stability through increased margins realized from decreased overheads. Development of best practices committee to review and approve organizations best practices and develop policies. Creation of aggressive sales teams who to ensure effective feedback of new products from customers,

streamline the involvement of government control and macro-economic environment.

5.4.2 Recommendations for Further Study

Based on observations during the study, the study recommends further research in the following areas: future research should include more mediating factors such as managerial power. Performance of prison industries was looked into through the lenses of efficiency, growth and profit. Future studies should therefore look into these items separately particularly following up on the performance of released prisoners. Again the longitudinal design should be adopted in future so as to measure effect of EO on performance spread for a long period of time.

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APPENDICIES

Appendix 1: Research Questionnaire

This questionnaire seeks to obtain information from individuals interacting with Kamiti Maximum Prison Industry about application of entrepreneurial orientation. The information will be used for academic purposes only and all responses will be kept confidential. You are required to respond to statements in each section as guided.

PART ONE: RESPONDENTS BIODATA

CODE

NO.....

Designation:

A. Facility command..... B. Support department.....

C. Prison officer..... D. Government officers.....

E. Prisoner.....

Number of years spent working/ imprisoned at Kamiti Maximum

A	B	C	D	E
0-3years	3-6years	6-9years	9-12years	Above 12years

PART TWO: THE DIMENSIONS OF ENTREPRENEURSHIP

The statements in this section are on various dimension of entrepreneurship considered relevant to the KPI. In each of the statements express your opinion on the state of each in the kamiti maximum prison facility in a scale of 1-5 where;

1= Strongly Disagree 2=Disagree 3=Uncertain 4=Agree 5=Strongly Agree.

<i>In this prison facility industry, we attempt to:</i>	Response Scale				
	1	2	3	4	5
➤ Make new designs of products.					
➤ Constantly modify the designs of the existing products					
➤ Constantly maintain the quality of our products and services					
➤ Constant train both officers attached to the industry and prisoners					
➤ Constantly review training curriculum for officers and prisoners					
➤ Emphasize on continuous organisational learning					
➤ Review our pricing policy according to market forces					
➤ Constantly carry out promotions and advertisement of our products					
➤ Constantly conduct market surveys and research on our products					
➤ Anticipate future business opportunities for our products					
➤ Adopt new/ modern equipment for doing work					
➤ Make prudent resource allocation decisions					
➤ Constantly buy new equipment and raw materials as required					
➤ Constantly search for new information from outside prison					
➤ Always have a strategic plan					
➤ Constantly target new market segments					
➤ Benchmark with the best producers					
➤ Ensure that our reputation is high					
➤ Ensure workers are motivated in [non] financial terms					
➤ Emphasize on proper financial reporting					

➤ Ensure that the authority to incur expenditure (AIE) is prudently used					
➤ Exercise independent decision making.					
➤ Ensure there is freedom in development of ideas					
➤ Emphasize on successful implementation of ideas and projects					

Macro-environmental factors

This section of the questionnaire is about the external environment within which the KPI operates. For each of the statements express your opinion on the state of each in a scale of 1-5 where;

*1= Disagree strongly 2=Disagree 3=Uncertain
4=Agree 5=Agree strongly*

<i>The situation faced by the KPI is such that:</i>	Responses Scale				
	1	2	3	4	5
➤ There is adequate funding					
➤ There is prolonged bureaucracy in managing the authority to incur expenditure(AIE)					
➤ There are very stringent procurement controls					
➤ There is always a possibility of interference by the government					
➤ There are conflicting instructions from the government					
➤ There is high competition for most of our products					
➤ Our pricing is seriously affected by other producers					
➤ Our designs are easily imitated by competitors					
➤ Potential corporate clients have serious budgetary constraints					

Performance

This section assesses the level of performance of the KPI (kamiti) over the last five years. Express your opinion in a scale of 1-5 where;

1= Definitely false 2=False 3=Uncertain 4=True 5=Definitely true

<i>In the last five years:</i>	<i>Response Scale</i>				
	1	2	3	4	5
➤ The number of customers has increased					
➤ The total revenue collections per year have increased					
➤ The number of customers complaints has reduced					
➤ Customer orders have been delivered on time					
➤ Number of defective items has reduced					
➤ There is minimal wastage					
➤ The number of new product lines have increased					

QUATITATIVE DATA

In pursuit of successful completion of collection of industry data in addition to the questionnaire kindly assist me with the following estimates covering the last five years.

Description of item required	2011	2012	2013	2014	2015
1. Estimates of number of customers(purchases)					
2. Estimates of number of items sold					
3. Estimates of amount of sales in KSH (000)					

Thank you very much for your cooperation

Appendix 2: Proposed Budget

<u>Item Description</u>	<u>Amount(Ksh)</u>
Stationary, printing	25,000
Sourcing reading materials	15,000
Transport	35,000
Communication/telephone	3,000
Computer services	10,000
Miscellaneous	2,000
TOTAL	90,000