# ENTREPRENEURIAL ORIENTATION AND PERFORMANCE OF PHARMACEUTICAL FIRMS IN NAIROBI CITY COUNTY, KENYA

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## A  RESEARCH PROJECT PRESENTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE AWARD OF THE DEGREE OF MSC ENTREPRENEURSHIP AND INNOVATIONS MANAGEMENT OF THE UNIVERSITY OF NAIROBI

### 2016

# DECLARATION

I, the undersigned, declare that this is my original work and has not been submitted for any academic award in any institution.

Signature.............................................

Date........................................

Ashbell Macharia

**REG. NO: D66/80282/2012**


**SUPERVISOR'S APPROVAL**

This research project has been submitted with my approval as the university supervisor

Signature.................................................

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# DEDICATION

I dedicate this work to my family for their endless support throughout my studies.

# ACKNOWLEDGEMENT

I would like to acknowledge my family members, friends and colleagues whose support has made it possible for me to come this far in my academics.

I also acknowledge my fellow students and lecturers of the University of Nairobi whose wells of knowledge and support through the academic period has made me better.

I would also like to sincerely acknowledge my supervisor, Prof. Justus Munyoki who has guided me tirelessly through the research project. His support is invaluable.

# ABSTRACT

The purpose of this study was to establish the influence of Entrepreneurial Orientation (OE) on the performance of pharmaceutical firms in Nairobi. Specifically, the study was to establish the influence of innovativeness and risk-taking on the performance of Pharmaceutical firms in Nairobi. This study adopted a descriptive survey. The study targeted population of registered pharmaceutical manufacturers, registered pharmaceutical distributors, registered wholesalers and registered retailers. A total sample of 139 was selected comprising about 10% of each of the respective group. Self administered questionnaires were developed in line with the objectives of the study. Piloting was undertaken in order to determine the effectiveness and validity of the questionnaire. The Statistical Package for Social Sciences (SPSS) software version 20.0 was used to carry data analysis. The study produced both descriptive and inferential statistics. The findings revealed that innovativeness and risk taking were satisfactory variables in explaining performance of pharmaceutical firms. This was supported by coefficient of determination also known as the R square of 35.6%. Result findings revealed that that risk taking was positively related with performance of pharmaceutical firms (r= .496, p=0.000). Regression of coefficients results showed that innovativeness and performance of pharmaceutical firms were positively and significantly related. Result findings further revealed that that innovativeness was positively related with performance of pharmaceutical firms (r= .514, p=0.000). Regression of coefficients results also showed that risk taking and performance of pharmaceutical firms were positively and significantly related. The study concluded that innovativeness and risk taking in entrepreneurship affects the performance of pharmaceutical firms. The study further recommends intensive research and development in the pharmaceutical industry to meet the emerging demands of customers.

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**ANOVA-**     analysis of variance

**COMESA-**   Common Market for Eastern and Southern Africa

**EO-**          Entrepreneurial Orientation

**KEMSA-**    Kenya Medical Supplies Agency

**MoH-**        Ministry of Health

**ROE-**        Return on Equity

**SEM-**        Structural Equation Modeling

**SMEs-**      Small Medium Enterprises

**SPSS-**      Statistical Package for Social Sciences

# CHAPTER ONE: INTRODUCTION

## 1.1 Background of the Study

Entrepreneurial orientation (EO) is a significant element to ensure the prosperity of a business bearing in mind the hardships encountered when conducting a situation that force businesses to seek new opportunities. EO reflects the behavior of the entrepreneurs like innovation, proactive and risk taking (Arham, 2014). In this manner, firms have to be innovative, be more proactive compared to competitors in all aspect and be risk-oriented. Lumpkin & Des (2001) regard EO processes and endeavors of organizations being undertaken. As indicated by Giudici (2013) a positive relationship exists between entrepreneurial introduction and execution of a firm. This is because EO has the ability to help organizational firms understand the market and maintain loyal customers by meeting their needs through innovative products that satisfy them.

This study is anchored on the theory of Social Cultural Theory of Entrepreneurship which states that certain people are enriched with inventive influence in any social that enables them to develop varied perception towards entrepreneurship. The pharmaceutical sector in Kenya is grouped into manufacturers, distributors and retailers. The industry is regulated by pharmacy and poisons board. The licenses are issued with specific level of operation indicated thus stipulating if the firm is registered as pharmaceutical manufacturer, pharmaceutical distributor, pharmaceutical wholesaler or pharmaceutical retailer (Pharmacy & Poisons Board, 2015).

## 1.1.1 Entrepreneurial orientation

Entrepreneurship orientation depicts future response of firms towards business. There are features that characterize organizational entrepreneurial orientation. These include

self-sufficiency, chance taking, ingenuity, professional liveliness and focused forcefulness. Past studies indicate a strong EO performance relationship (Walter *et al.,* 2006), where service industries are somehow neglected. Entrepreneurial orientation is an important ingredient to a firm's prosperity (Miller, 1983). Positive connections between entrepreneurial introduction and execution have been noted by various analysts (Kraus et al., 2005; Al Swidi and Mahmood, 2011). Considers have likewise discovered constructive outcome of EO on development of little firms and gainfulness of non-state firms in China (Chow, 2006; Gurbuz and Aykol, 2009).

### 1.1.2 Organizational performance

As indicated by Swanson (2000), organization performance is the esteemed profitable yield of an arrangement of products or administrations. To attain institutional output through workers, the association must consider them as resources and they should be treated with awesome consideration so that the representatives get to be beneficial. There are a number of indicators by which organizational performance may be judged; the balanced scorecard offers both qualitative and quantitative measures. In this way, performance is linked both to short term outputs and process management (Johnson *et al.,* 2006). To determine the extent at which the business is performing, an organization can measure the performance of all assets.

### 1.1.3 Pharmaceutical industry in Kenya

This comprises of the accompanying parts; makers, merchants, wholesalers and retail drug stores and physicists. Presently Kenya is the biggest maker of pharmaceutical items among COMESA counties controlling 50% of the regions market (Export Processing Zone, 2015, Pharmacy and Poisons Board, 2015). There has been tremendous growth in pharmaceuticals market in Kenya with over the counter

products growing from Kshs 14.4 billion in 2007, to Kshs 17.7 billion in 2008 which is a growth of 22.9 %. Between 2015 and 2016, the pharmaceutical industry grew from Ksh73.35bn in 2015 to Ksh83.84bn in 2016; a 14.3% growth rate to (Kenya pharmaceutical and health report, 2010).

The pharmaceutical industry in Kenya is regulated by pharmacy and poisons board, a government parastatal that issues license to all firms operating in the industry within Kenyan market. The licenses are issued with specific level of operation indicated thus stipulating if the firm is registered as pharmaceutical manufacturer, pharmaceutical distributor, pharmaceutical wholesaler or pharmaceutical retailer.

There are 30 registered pharmaceutical manufacturers, about 110 registered pharmaceutical distributors, about 700 registered wholesalers and about 1,300 registered retail pharmacies and chemists (Pharmacy and poisons board, 2014 and Export processing zone 2014). The mode of operation of the firm will form the basis of identifying the target population for this study, with manufacturers and distributors forming the population of study herein termed as large pharmaceutical firms.

## 1.1.4 Pharmaceutical firms in Nairobi

The pharmaceutical business in Nairobi comprises of three portions in particular the makers, wholesalers and retailers. All these assume a noteworthy part in supporting the nation's wellbeing segment. The pharmaceutical part incorporates neighborhood fabricating organizations and huge Multi National Corporations, auxiliaries or joint endeavors. Most of these pharmaceutical firms are located within Nairobi and its environs.

Pharmaceutical items in Kenya are directed through drug stores, scientific experts, wellbeing offices and specific shops. There are around 700 enrolled discount and

1,300 retail merchants in Kenya with head workplaces essentially in Nairobi, kept an eye on by enlisted drug specialists and pharmaceutical technologists (pharmacyboardkenya.org).

The medications at a bargain in Nairobi are sold by outlet arrangement, which can be depicted as free deals, over the counter and medicine as it were. The market for pharmaceutical items in Kenya is evaluated at KShs. 8 billion for every annum. The legislature, through Kenya Medical Supplies Agency (KEMSA) is the biggest buyer of medications produced both locally and imported, in the nation. It purchases around 30% of the medications in the Kenyan market through an open-delicate framework and circulates them to government restorative establishments (Kenya pharmaceutical industry, 2015).

## 1.2 Research Problem

Entrepreneurial orientation has been identified as a key determinant for a firm's prosperity. It has been related to high firm growth and superior performance (Mahmood & Hanafi, 2013). High adoption of innovativeness, risk-taking and pro-activeness is seen as a key ingredient to success of firms (Mwangi & Ngugi, 2014). Given the high failure rate of pharmaceutical firms in Nairobi, the need to identify strategies to improve their performance is evident.

Most of the studies conducted about EO have focused on the effect of EO on organizational execution of SMEs. For instance, Hirobumi (2010) did a study on effect of entrepreneurial introduction on firm execution and found a beneficial outcome on firm execution. Khalili, Nejadhussein and Fazel (2013) directed a study on the impact of entrepreneurial introduction on imaginative execution in Iran. The study supported that the measurements of enterprise introduction have impact on imaginative execution. Proactiveness and focused forcefulness did not have a positive association with OE.

Fatoki (2014) examined the entrepreneurial introduction of miniaturized scale endeavors in the retail area in South Africa and the outcomes uncovered adroitness by smaller scale undertakings at presenting new product offerings furthermore at rolling out improvements to the product offering, however shortcoming in innovative work. This is a theoretical crevice since it concentrated on entrepreneurial introduction of miniaturized scale undertakings in the retail segment. The present study is on the effect of Entrepreneurial Orientation on Performance of Pharmaceutical Firms. Ansir and Cahyono (2014) drove a study on the Influence of Entrepreneurial Orientation to Firm Performance West Java, Indonesia. The specialist did not go over any study that was done on the impact of entrepreneurial introduction on the execution of

Pharmaceutical firms in Nairobi. The concentrate along these lines tried to fill the exploration holes recognized by tending to the examination address; what is the effect of OE on the profitability of Pharmaceutical Firms in Nairobi?

## 1.3 General objective

The general goal of this study was to build up the impact of Entrepreneurial Orientation on the execution of pharmaceutical firms in Nairobi.

This study was guided by the accompanying particular objectives:

i) To determine the effect of innovativeness on the performance of Pharmaceutical firms in Nairobi.

ii) To examine the influence of risk-taking on the performance of Pharmaceutical firms in Nairobi.

## 1.4 Value of the Study

This study will be of essentialness to the administration of the pharmaceutical companies and firms operating in Nairobi in which they will assess the impact of EO on the pharmaceutical business and utilize the findings obtained from the study to establish whether EO practices are currently being practiced partially or fully and if not how to incorporate the EO concept in their daily operations.

This study will likewise profit the Government and strategy producers in the Ministry of Health in settling on arrangement choices whose general destinations are to quicken the rate of development in the pharmaceutical business through EO rehearses.

This study is relied upon to build the collection of information to the researchers on the advantages of EO practices adaption in the pharmaceutical organizations.

# CHAPTER TWO: LITERATURE REVIEW

## 2.1 Introduction

This part exhibits an audit of past studies with the point of identifying research gaps. Literature will guide the relevance of the study findings. It will therefore focus on the theoretical literature, the empirical review; dimensions of entrepreneurial orientation and the summary of the literature review.

## 2.2 Theoretical Foundation

This study is guided by Social Cultural Theory of Entrepreneurship and Schumpeter's Innovation Theory. These theories clearly explain the research in line with the topic.

### 2.2.1 Social Cultural Theory of Entrepreneurship

This theory was found by Zimmer (1986). The theory stated that the culture of entrepreneurship is affected by norms and ways of life. Business enterprise attributes, for example, advancement, inventiveness, hazard taking, activity, forcefulness and aggressiveness is advanced, and where social procedures are not unbending then such identities get to be intrigued with beginning and working their own ventures (Mwaura et el, 2014). This theory supports our study because the culture of aggressiveness and risk taking cultivates entrepreneurial skills needed to sustain a business.

### 2.2.2 Schumpeter's Innovation Theory

Schumpeter (1942) highlighted the part of advancement in the entrepreneurial procedure. Accordingly, Schumpeter calls for innovation among entrepreneurs in order to continue staying in the market. Innovation comes in form of new processes, new products and services. This theory applies to this study since a firm must be able

to create, innovate and market new products. The products should be able to meet the ever changing demands of the customers in times of quality and even value.

## 2.3 Entrepreneurial Dimensions

### 2.3.1 Innovativeness

This is the ability of the firm to create and market new products. Innovativeness is therefore a necessary ingredient of the business enterprise and firm execution. Inventiveness mirrors the capacity of a firm to create and develop new products, new ways of marketing and product development. Development is an essential method for seeking after circumstances as is a vital segment of an Entrepreneurial Orientation (Lumpkin and Dess, 1996).

### 2.3.2 Risk-taking

Concurring Deakins and Freel (2012) chance taking identifies with a business status to seek after circumstances regardless of instability and the questions. It involves acting strongly without knowing the outcomes. On hazard taking, it is the firm purposely giving the assets to ventures with odds of exceptional yields however may likewise involve a probability of higher disappointment (Mahmoud and Hanafi, 2013). A firm pursuing a new opportunity has both chances of failing or succeeding. This can involve channeling huge resources to research and development of new products. Pharmaceutical firms should be ready to take risks when developing new products to suit the market. Further, new ways of marketing is mandatory.

## 2.4 Empirical Review

The study by Ligthelm (2010) principally went for figuring the survival rate of independent ventures inside the quickly changing exchange environment in light of longitudinal experimental studies, with specific accentuation put on the part of

enterprise in private venture survival. The discoveries recommended that entrepreneurial intuition and business administration aptitudes be named the most grounded indicators of independent company survival. The current study adopted descriptive survey design.

Otieno, Bwisa and Kihoro (2012) conducted a study on the Impact of Entrepreneurial Orientation on Kenya's Manufacturing Firms Operating under East African Regional Integration. The study embraced both quantitative and subjective exploratory research outline. This is different from the current study which has adopted descriptive survey design and purely quantitative. The study discoveries uncovered that execution of Kenya's assembling firms are essentially impacted by entrepreneurial introduction, as far as Sales, Profits and Employment as measures of firm execution.

Arshad, Rasli, Arshad and Zain (2013) conducted a study on The Impact of Entrepreneurial Orientation on Performance of SMEs in Malaysia. The study decided the effect of entrepreneurial introduction (EO) spoke to by five measurements and business execution. A basic arbitrary examining strategy was received in which just hundred innovation based SMEs in Malaysia reacted to the review poll and an aggregate of eighty eight reactions regarded to be usable. Result findings showed there was a medium to small correlation between variables. This study also revealed that innovativeness, proactiveness, risk-taking and competitive aggressiveness influenced performance. This study presented a geographical gap by focusing SMEs firms in Malaysia.

Khalili, Nejadhussein and Fazel (2013) conducted a study on the impact of entrepreneurial introduction on creative execution: Study of a petrochemical organization in Iran. The study went for talking about the relations between business enterprise introduction and inventive execution. Corroborative variable examination

strategy was utilized for breaking down information and testing the exploration questions. Result findings advocated that the components of OE have impact on innovative performance.

Ambad and Wahab (2013) conducted a study on Entrepreneurial Orientation among big organization in Malaysia. This current research's point was to examine the impact of entrepreneurial introduction measurements on firm execution of substantial organizations in Malaysia. What's more, the directing impact of ecological threatening vibe to these connections was additionally inspected. The entrepreneurial introduction was perceived as the driver of development and gainfulness. So as to dissect the information, the study utilized Partial Least Square (PLS). Target information was utilized to gauge the firm execution while subjective information was utilized to quantify the free and directing factors. The discoveries demonstrated that ingenuity and hazard taking influence firm execution emphatically. Interestingly, proactiveness did not.

Ansir and Cahyono (2014) conducted a study on the Influence of Entrepreneurial Orientation to Firm Performance relating to 163 SME in West Java, Indonesia using Structural Equation Modeling (SEM) analysis. The results indicated a significant influence to firm performance in West Java.

Mwaura, Gathenya and Kihoro (2015) conducted a study on the dynamics of entrepreneurial introduction on the Performance of Women claimed Enterprises in Kenya. After, effects of this study demonstrated that, Entrepreneurial Orientation had a positive relationship and assumed a noteworthy part on the Performance of Enterprises as confirm by the expansion in piece of the overall industry and trade stream dependability out the business.

## 2.5 Research gaps

Khalili, Nejadhussein and Fazel (2013) conducted a study on the effect of entrepreneurial orientation on innovative performance in Iran. This study presented both contextual gap and methodological gap. It has contextual gap because the study was carried on a petroleum company in Iran; our current study will be on pharmaceutical firms in Nairobi County Kenya. Further, the study used Confirmatory factor analysis method in analyzing data and testing the research questions; our current study will use descriptive, regression and analysis of variance (ANOVA) as a method of data analysis. This is methodological gap. Further, Ambad and Wahab (2013) conducted a study on Entrepreneurial Orientation among Large Firms in Malaysia: Contingent Effects of Hostile Environments. This study presented three research gaps; conceptual gap, contextual gap and methodological gap. Ansir and Cahyono (2014) conducted a study on the Influence of Entrepreneurial Orientation to Firm Performance. It has contextual gap in the sense that the study was carried in West Java Indonesia. Our current study will be carried in Nairobi County Kenya. This study therefore attempts to fill these research gaps by establishing the influence of Entrepreneurial Orientation on Performance of Pharmaceutical Firms in Nairobi.

## 2.6 Conceptual framework

A calculated system is an arrangement of expansive thoughts and standards taken from important fields of enquiry and used to structure an ensuing presentation. Figure 2.1 is a figurative representation of the variables to be explored by this study.

**Figure 2.1: Conceptual framework**

**Entrepreneurial Orientation (OE)**



**Innovativeness**
- New products
- New technology
- Skilled employees

**Risk-taking**
- Financial risks
- Business risks
- Personal risks

**Organizational Performance**
- Profits
- Return on Equity
- Return on sales
- Efficiency
- Effectiveness
- Financial viability
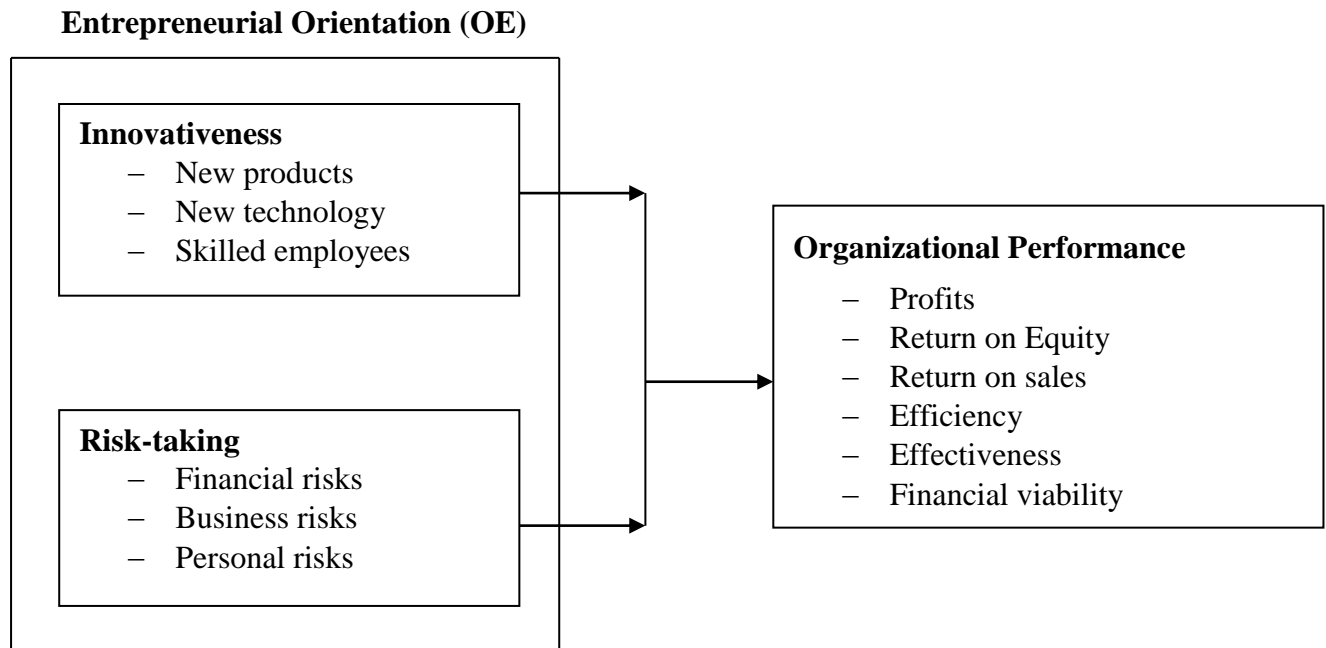
**(Source: Researcher, 2016)**

# CHAPTER THREE: RESEARCH METHODOLOGY

## 3.1 Introduction

This section depicts the examination procedure utilized amid the study. This is the procedural arrangement that is received amid the study to answer the examination questions. This segment of the concentrate in this way depicted the exploration plan, target populace and zone, inspecting casing, test and examining system, information gathering instruments, strategies and investigation administration that the study utilized.

## 3.2 Research Design

This study received a clear overview outline. As indicated by Mugenda and Mugenda (2008), a descriptive research plan is a methodical accumulation and examination of information from various gatherings of individuals. This approach was suitable for this study since the study expected to gather point by point data from the players in pharmaceutical industry to understand the effect of entrepreneurial orientation on their performance in the market thus answering the research question of the study.

## 3.3 Population

Target populace is a gathering or classification of creatures or people or questions which have at least one qualities in like manner (Mugenda & Mugenda, 2008). The target population was 20 registered pharmaceutical manufacturers, about 70 registered pharmaceutical distributors, about 400 registered wholesalers and about 900 registered retail pharmacies and chemists in Nairobi as indicated in Table 3.1

**Table 3.1: Target Population**

| Category | Population |
|---|---|
| Manufacturers | 20 |
| Distributers | 70 |
| Wholesalers | 400 |
| Retailers | 900 |
| **TOTAL** | **1390** |

**(Researcher, 2016)**

## 3.4 Sampling and Sample size

This study grouped similar firms together thus 20 manufacturers, 70 distributors, 400 wholesalers and 900 distributers and used stratified random sampling to reach at a representative sample from the sample frame of at least 10% of each of the group. Ten percent (10%) of the population can give accurate findings for generalizing to the population (Mugenda & Mugenda, 2003). The sample size of 139 firms was identified with 2 manufacturers, 7 distributors, 40 wholesalers and 90 retailers.

The study involved a senior manager as respondent from the 1390 firms. Questionnaires with closed questions were used. One respondent from each firm participated in answering the questionnaire.

**Table 3.2: Sampling**

| Category of Pharmaceutical firms | Sample (10%) |
|---|---|
| Manufacturers | 2 |
| Distributers | 7 |
| Wholesalers | 40 |
| Retailers | 90 |
| **TOTAL** | **139** |

**(Researcher, 2016)**

## 3.5 Data Collection

This study involved collecting data on entrepreneurial orientation from the various pharmaceutical firms identified for the study using semi structured questionnaire. The study adopted drop and pick method of data collection of the questionnaires to one senior manager within the firms included in the sample size.

## 3.6 Data Validity and Reliability

Validity is the capacity of the instrument to gauge what it is proposed to quantify. For Gravetter and Forzano (2006) validity of an examination instrument is the measure of the degree to which the instrument effectively measures what it was planned to gauge. Steering was attempted keeping in mind the end goal to decide the viability and unwavering quality of the questionnaire. Instrument reliability is the ability of the instrument to produce the same or highly similar or consistent results on repeated administrations (Bordens & Abbott, 2008). To test reliability, cronbach test was

carried and a coefficient r of above 0.7 was found which indicated that our research instrument was reliable.

## 3.7 Data Analysis

This is the application of reasoning to summarize the relevant details revealed in the investigation (Zikmund, 2010). Data execution was done using SPSS Version 20.0 software to determine any relationship between the independent variables (innovativeness and risk taking) and the dependent variable (financial performance of pharmaceutical firms) to establish effect of risk taking and innovativeness on financial performance of pharmaceutical firms. Each objective was answered by finding their means, correlations and regressions and relating them to the dependent variable (financial performance of firms). The means found indicated the final stand of the respondents about the research variables. Correlation table explained the associations between research variables. The beta coefficients for the specific objectives generated from the multiple regression models answered the research questions by explaining their individual influence on the performance of pharmaceutical firms.

## 3.7.1 Analytical Model

The regression model used in this study was;

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \in$$

Where,

$Y$– Financial Performance as measured by ROE

$\beta_0$– Constant

$X_1$ – Innovativeness

$X_2$ – Risk-taking

$\in$ = Error term

# CHAPTER FOUR: PRESENTATION AND DISCUSSION OF RESULTS

## 4.1 Introduction

This section provides the presentation of the findings and discussions. The findings were presented in line with the study objectives. Analysis of descriptive statistics and inferential statistics was conducted and the results presented in form of tables and figures.

## 4.2 Questionnaires' Return Rate

The study distributed 139 questionnaires. One thirty five (135) questionnaires were properly filled and returned. The results for the return rate are as presented in Table 4.1.

**Table 4.1: Return Rate**

| Response | Frequency | Percent |
|---|---|---|
| Returned | 135 | 97 |
| Unreturned | 4 | 3 |
| **Total** | **139** | **100%** |

The results in Table 4.1 indicated an overall successful response rate of 97%. According to Kothari (2004) a return rate of above 50% is sufficient for a study therefore a 97% return rate is very good for the study.

## 4.3 Bio data

Bio data highlights the demographic features of the respondents like gender, age, level of education and work experience of the respondents.

### 4.3.1 Gender

The respondents indicated their gender. The results are presented in Figure 4.1.

**Figure 4.1: Gender**
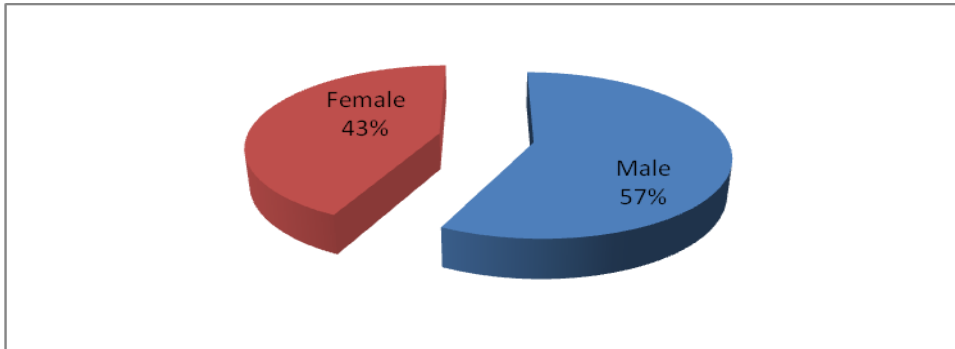


Results in Figure 4.1 indicate that majority of the respondents, 57%, were males while 43% were females. This implies that there is still gender disparity among persons working in the pharmaceutical firms in Nairobi County.

### 4.3.2 Level of Education

Respondents indicated their level of education. The findings are shown in Figure 4.2.

**Figure 4.2: Level of Education of the respondents**
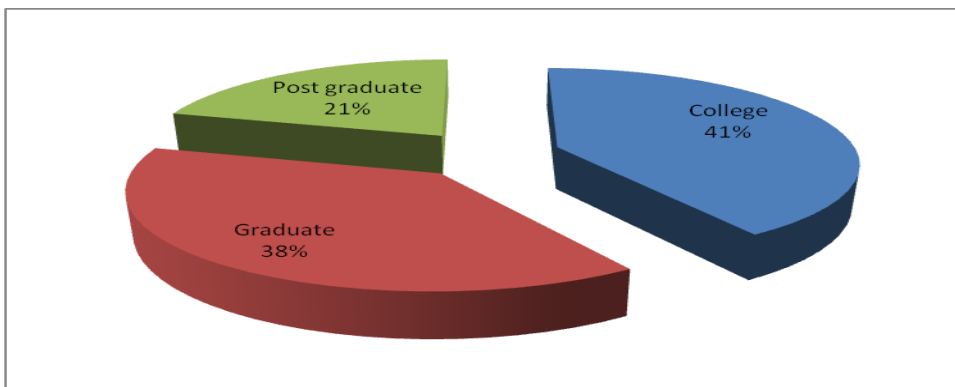


Study findings indicated that majority, forty one percent (41%), of the respondents had college level of education, and 38% of the respondents had attained education up to under graduate level. Another 21% had post graduate level. This implies that

majority of workers in the pharmaceutical industry in Nairobi have college and degree level of education.

### 4.3.3 Work duration

The respondents were asked to indicate the duration their firms have been in existence. The results are presented in Figure 4.3.

**Figure 4.3: Work duration**
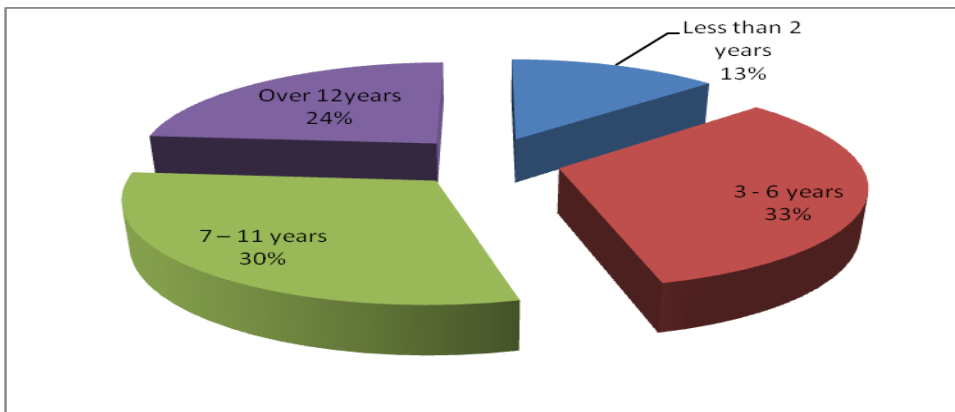


Thirty three percent (33%) indicated that their firms had been in existence for a period of 3-6years, 30% for the period 7-11years, 24% for more than 12years while 13% had worked only for less than 2years. This implies that pharmaceutical firms have been in existence for a long time in Nairobi County.

## 4.3.4 Pharmaceutical firms

Categories of pharmaceutical firms was established. The result findings were presented in figure 4.4.

**Figure 4.4: Category of pharmaceutical firms**
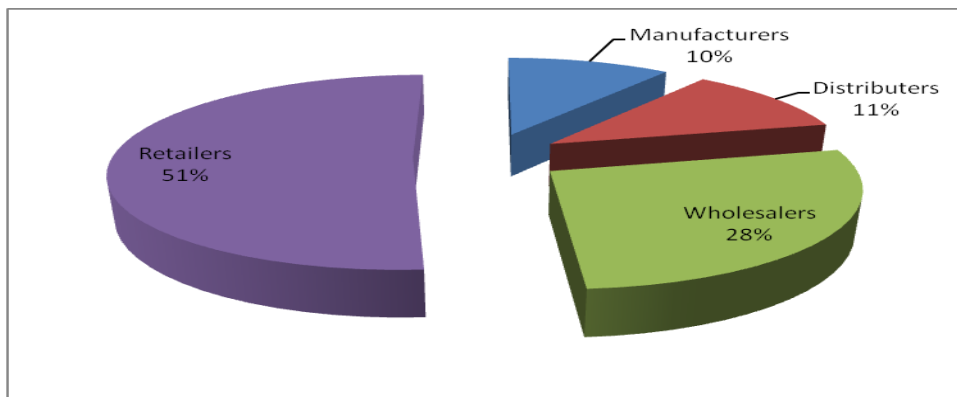


The result findings in figure 4.4 showed that a majority fifty one percent (51%) of pharmaceutical firms were retailers. Further, 28% were wholesalers, 11% distributers and the remaining 10% were manufacturers.

## 4.4 Descriptive statistics

Simple summaries and measures about the sample of the study were presented in line with study objectives.

## 4.4.1 Influence of innovativeness on the performance of Pharmaceutical firms

Study units indicated the extent of which their firms had adopted innovativeness entrepreneurship. Result findings were presented in figure 4.5.

**Figure 4.5: Extent of entrepreneurial innovative adoption**
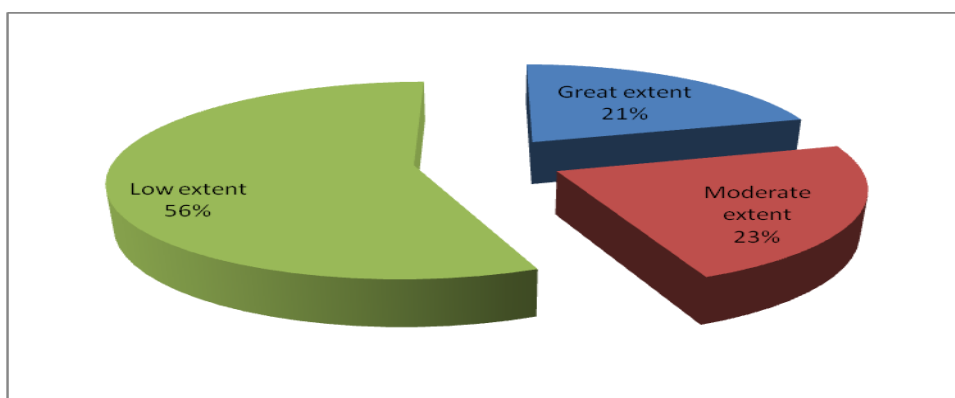


Result findings indicated that a majority fifty six percent of the pharmaceutical firms (56%) had adopted innovative entrepreneurship at low extent. Further, 23% said to a moderate extent with another 21% saying they had adopted innovative entrepreneurship at great extent. This implies that most pharmaceutical firms in Nairobi County have not adopted innovative entrepreneurship fully.

The first objective was to establish the influence of innovativeness on the performance of Pharmaceutical firms in Nairobi. The respondents were asked to respond on statements relating to innovativeness entrepreneurship. The result findings were shown in table 4.2.

**Table 4.2: Influence of innovativeness on the performance of Pharmaceutical firms**

| Statement | Strongly Disagree | Disagree | Neutral | Agree | Strongly Agree | Mean | Std Dev |
|---|---|---|---|---|---|---|---|
| My firm has adopted new modern ways of marketing | 41.5% | 25.9% | 8.1% | 13.3% | 11.1% | 2 | 1 |
| I am a creative employee | 40.0% | 25.2% | 7.4% | 14.8% | 12.6% | 2 | 1 |
| Quality of our products have improved | 47.4% | 21.5% | 8.9% | 13.3% | 8.9% | 2 | 1 |
| I support new innovative ideas in the firm | 45.9% | 23.0% | 5.9% | 14.1% | 11.1% | 2 | 1 |
| I value research and development | 51.9% | 14.8% | 11.1% | 12.6% | 9.6% | 2 | 1 |
| My firm has been able to retain customers because of innovative products | 47.4% | 18.5% | 5.9% | 18.5% | 9.6% | 2 | 1 |
| Average | | | | | | 2 | 1 |

Results in table 4.2 revealed that majority of the respondents (67.4%) disagreed that their firms had adopted innovative modern way of marketing. The results also showed that majority of the respondents who were 65.2% disagreed that their employees were very creative. The results also showed that majority of the respondents who were 68.9% of the respondents disagreed that their products produced had been improved on the quality. Sixty eight point nine percent (68.9%) of the respondents did not agree that new ideas from the firm were not being fully supported. Further, result findings indicated that majority 66.7% of the respondents did not agree that product research and development was given a higher priority. Finally, when respondents were asked whether the firm has been able to retain customers because of improved quality products, majority of the respondents 65.9% did not agree. The mean for the study

was 2.0 showing disagreement. The deviation from the mean was 1.0 meaning that the responses were clustered around the mean response.

## 4.4.2 Influence of risk taking on the performance of Pharmaceutical firms

The second objective was to determine the influence of risk-taking on the performance of Pharmaceutical firms in Nairobi. The respondents were asked to respond on statements relating to risk taking in entrepreneurship. The result findings were presented in table 4.3.

**Table 4.3: Influence of risk-taking on the performance of Pharmaceutical firms**

| Statement | Strongly disagree | Disagree | Neutral | Agree | Strongly agree | Mean | Std Dev |
|---|---|---|---|---|---|---|---|
| I am keen to minimize risks | 45.9% | 20.7% | 9.6% | 13.3% | 10.4% | 2 | 1 |
| I participate in supporting my firm's initiative when open up new businesses | 40.0% | 20.0% | 14.1% | 16.3% | 9.6% | 2 | 1 |
| We have new products targeting new markets | 43.0% | 23.7% | 10.4% | 12.6% | 10.4% | 2 | 1 |
| My firm is willing firm to take risks | 47.4% | 18.5% | 11.9% | 11.1% | 11.1% | 2 | 1 |
| My firm explores new potential areas of business | 41.5% | 17.0% | 10.4% | 18.5% | 12.6% | 2 | 1 |
| **Average** | | | | | | **2** | **1** |

Results in table 4.3 revealed that majority of the respondents who were 66.6% disagreed that their firms were very keen in minimizing business risks. The results also showed that majority of the respondents who were 60% disagreed that most employees supported new initiatives by SMEs to expand their business. The results also showed that majority of the respondents who were 66.7% of the respondents disagreed that they

had lounged new products in new markets. Further, result findings indicated that majority 65.9% of the respondents disagreed that their firms were willing to take risks for fear of unknown. Finally, when respondents were asked whether the firm has been able to explore new areas of business, majority of the respondents 68.7% did not agree.

## 4.5 Inferential statistics

This is meant to make inferences and predictions regarding the population of this study. Pearson correlation and regression model was used.

## 4.5.1 Correlation matrix

The study sought to establish the association among the study variables. The results are as presented in Table 4.4.

**Table 4.4: Correlation matrix**

|  |  | Innovativeness | Risk taking | Performance of pharmaceutical firms |
|---|---|---|---|---|
| Innovativeness | Pearson Correlation | 1 | .433** | .496** |
|  | Sig. (2-tailed) |  | 0 | 0.000 |
| Risk taking | Pearson Correlation | .433** | 1 | .514** |
|  | Sig. (2-tailed) | 0 |  | 0.000 |
| Performance of pharmaceutical firms | Pearson Correlation | .496** | .514** | 1 |
|  | Sig. (2-tailed) | 0.000 | 0.000 |  |
| ** Correlation is significant at the 0.01 level (2-tailed). | | | | |

The results in Table 4.4 indicated that innovativeness and risk taking are positively related with performance of pharmaceutical firms in Nairobi. Results indicated that innovativeness (r= .496, p=0.000) and risk taking (r= .514, p=0.000) are significantly and positively related to performance of pharmaceutical firms in Nairobi County. An increase in either of the above variable leads to increased performance of

pharmaceutical firms. This implies that an increase in any unit of the variables leads to an improved performance of pharmaceutical firms..

## 4.5.2 Model summary

The outcomes introduced in table 4.5 present the wellness of model utilized of the relapse demonstrate as a part of clarifying the study wonders. Inventiveness and hazard taking were observed to be acceptable factors in clarifying execution of pharmaceutical firms. This is bolstered by coefficient of assurance otherwise called the R square of 35.6%.

**Table 4.5: Model summary**

| Indicator | Coefficient |
|-----------|-------------|
| R | 0.597 |
| R Square | 0.356 |

This means that innovativeness and risk taking explain 35.6% of the variations in the dependent variable which is performance of pharmaceutical firms in Nairobi County. This means that we have other factors which affect performance of pharmaceutical firms which are not included in the model. The results further indicate that the model applied to link the relationship of the variables was satisfactory.

## 4.5.3 Analysis of Variance

Table 4.6 provides the results on the analysis of the variance (ANOVA). This was to establish whether there was any significant difference among the variables means. Independent variables were explored to determine whether their existed any significance difference with the dependent variable (performance of pharmaceutical).

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**Table 4.6: Analysis of Variance**

| Indicator | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|
| Regression | 10.103 | 2 | 5.052 | 36.478 | .000 |
| Residual | 18.28 | 132 | 0.138 | | |
| **Total** | **28.384** | **134** | | | |

The outcomes demonstrate that the general model was factually noteworthy. Assist, the outcomes suggest that the free factors are great indicators of execution of pharmaceutical firms. This was bolstered by a F measurement of 36.478 and the reported p esteem (0.000) which was not exactly the routine 0.05 importance level. Subsequently, the outcome discoveries from the ANOVA demonstrated that the method for autonomous factors and the reliant variable are measurably critical.

## 4.5.4 Regression of Coefficients

Regression of coefficients results in table 4.7 shows that innovativeness and performance of pharmaceutical firms are positively and significantly related (r=0.307, p=0. 000). The table further indicates that risk taking and performance of pharmaceutical firms are positively and significantly related (r=0.331, p=0.000).

**Table 4.7: Regressions of coefficients**

| Variable | B | Std. Error | Beta | t | Sig. |
|---|---|---|---|---|---|
| (Constant) | 1.088 | 0.228 | | 4.763 | 0.000 |
| Innovatiness | 0.307 | 0.071 | 0.336 | 4.336 | 0.000 |
| Risk taking | 0.331 | 0.07 | 0.369 | 4.756 | 0.000 |

Thus, the optimal model for the study is;

*Performance of pharmaceutical firms in Nairobi County = 1.088+ 0.307Innovatiness+ 0.331Risk taking*

This overall model shows that innovativeness will increase pharmaceutical performance SMEs firms by 0.307 units. Risk taking will also increase the performance of pharmaceutical firms by 0.331 units. Finally, the positive constant (1.008) stands for other factors which can increase the performance of pharmaceutical firms which are not included in the model.

# CHAPTER FIVE: SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

## 5.1 Introduction

This chapter addressed the summary of the study, the conclusions and the recommendations.

## 5.2 Summary of the study

The purpose of this study was to establish the influence of Entrepreneurial Orientation on performance of pharmaceutical firms in Nairobi. The study objectives were; to establish the effect of innovativeness on the outcome of Pharmaceutical firms in Nairobi and to determine the influence of risk-taking on the performance of Pharmaceutical firms in Nairobi.

This study employed a descriptive survey design. The target population was 20 registered pharmaceutical manufacturers, about 70 registered pharmaceutical distributors, about 400 registered wholesalers and about 900 registered retail pharmacies and chemists in Nairobi. The sample size of 214 firms was identified with 2 manufacturers, 7 distributers, 40 wholesalers and 90 retailers. Self administered questionnaires were developed in line with the objectives of the study. Piloting was undertaken in order to determine the effectiveness and validity of the questionnaire. The study produced both descriptive and inferential statistics. Descriptive statistics were presented in terms of tables and figures. Inferential statistics were presented as ANOVA tests and regression coefficients.

The findings revealed that innovativeness and risk taking were found to be reliable explaining profitability of pharmaceutical firms. This was supported by R square of 35.6%.

The first objective was to determine the influence of risk-taking on the performance of Pharmaceutical firms in Nairobi. Result findings revealed that that risk taking was positively related with performance of pharmaceutical firms (r= .496, p=0.000). Regression of coefficients results showed that innovativeness and performance of pharmaceutical firms were positively and significantly related.

The second objective was to establish the influence of innovativeness on the performance of Pharmaceutical firms in Nairobi. Result findings revealed that that innovativeness was positively related with performance of pharmaceutical firms (r= .514, p=0.000). Regression of coefficients results also showed that risk taking and performance of pharmaceutical firms were positively and significantly related.

## 5.3 Conclusions

The conclusions of this study were informed by the findings based on each study objective and also findings of other similar studies. Each objective was reviewed and a conclusion provided which covers both theory and practice.

The findings revealed that;

The study concluded that innovativeness in entrepreneurship affects the performance of pharmaceutical firms. Adoption of innovative way of marketing and production of pharmaceutical products can improve the performance of the business.

Further, the study concluded that risk taking can influence the performance of pharmaceutical firms. This is because risk taking involves adventure into new areas of business which can be more profitable.

## 5.4 Recommendations for study

This study found that innovativeness and risk taking behavior in entrepreneurship affects the performance of firms;

It is therefore recommended that pharmaceutical firms in Nairobi County devise ways and means of raising sufficient funds that can be channeled to research and development of new innovative products in the pharmaceutical industry.

The study also recommends that pharmaceutical firms must invest heavily in training of employees in IT to improve their skills in production and marketing strategies of their pharmaceutical products.

Its further recommended that pharmaceutical firms should be risk takers when questing for new opportunities and market in the pharmaceutical industry.

## 5.5 Suggestions for further study

Since the study was carried out in one county only, more studies should be replicated in other counties in Kenya to establish whether the same results still hold. This will ensure that other pharmaceutical firms in Kenya can adopt the suggested recommendations to improve their financial performance, innovate and expand their territories in search for new opportunities.

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# APPENDICES

## Appendix I: Questionnaire

Kindly answer the following questions as honestly and accurately as possible. The information given will be treated with a lot of confidentiality. You are encouraged to give your honest opinion. Put a tick (√) where appropriate.

**Section A: Demographic data**

1. Gender?        Male [ ]        Female [ ]

2. What is your level of education?

   a) College            [ ]

   b) Graduate            [ ]

   c) Post graduate      [ ]

3. How long have you been in the pharmaceutical industry?

a) Less than 2 years    [ ]

b) 3 - 6 years            [ ]

c) 7 – 11 years          [ ]

d) Over 12years          [ ]

4. Which category of pharmaceutical firms does your firm belong?

a) Manufacturers        [ ]

b) Distributers          [ ]

c) Wholesalers          [ ]

d) Retailers              [ ]

**Section B: Performance of pharmaceutical firms**

5. To what extent has your firm been performing?

Great extent    [ ]   Moderate extent     [ ]   Low extent    [ ]

27. This Section is concerned with assessing the performance of pharmaceutical firms in Nairobi County. For each of the 3, please indicate the range of the performance indicators for last three years.

**RETURNS ON EQUITY (ROE)**

| Year | Less than 2.5% | Between 2.6%-5% | Between 5.1%-7.5% | Between 7.6%-10% | More than 10% |
|------|------|------|------|------|------|
| 2015 | | | | | |
| 2014 | | | | | |
| 2013 | | | | | |

**RETURNS ON ASSETS (ROA)**

| Year | Less than 3% | Between 3.1%-6% | Between 6.1%-9% | Between 9.1%-12% | More than 12% |
|------|------|------|------|------|------|
| 2015 | | | | | |
| 2014 | | | | | |
| 2013 | | | | | |

**TOTAL SALES (KSH)**

| Year | Less than 250m | Between 251m-500m | Between 501m-750m | Between 750m-1bn | More than 1bn |
|------|----------------|-------------------|-------------------|------------------|---------------|
| 2015 | | | | | |
| 2014 | | | | | |
| 2013 | | | | | |

**Section C: Innovativeness**

7. To what extent has your firm impressed innovative business?

Great extent   [ ]   Moderate extent   [ ]   Low extent   [ ]

8. This Section is concerned with assessing the influence of innovativeness on performance of pharmaceutical firms in Nairobi County. Please tick ($\sqrt{}$) in the box which best describes your agreement or disagreement on each of the following statements. The choices given are: Strongly Disagree, Disagree, Neutral, Agree and Strongly Agree.

| No | Statement | Strongly Disagree 1 | Disagree 2 | Neutral 3 | Agree 4 | Strongly agree 5 |
|----|-----------|---------------------|-----------|-----------|---------|------------------|
| 1 | We have adopted new modern ways of marketing | | | | | |
| 2 | We have creative skillful employees | | | | | |
| 3 | Quality of our products have improved | | | | | |
| 4 | Our firm supports new ideas | | | | | |
| 5 | Our firm puts emphasis on research and development | | | | | |
| 6 | My firm has been able to retain customers because of innovative products | | | | | |

**Section C: Risk-taking**

8. This Section is concerned with assessing the influence of risk taking on performance of pharmaceutical firms in Nairobi County. Please tick (√) in the box which best describes your agreement or disagreement on each of the following statements. The choices given are: Strongly Disagree, Disagree, Neutral, Agree and Strongly Agree.

| No | Statement | Strongly Disagree | Disagree | Neutral | Agree | Strongly agree |
|----|-----------|-------------------|----------|---------|-------|----------------|
|    |           | 1                 | 2        | 3       | 4     | 5              |
| 1  | I am keen to minimize risks | | | | | |
| 2  | I participate in supporting my firm's initiative when open up new businesses | | | | | |
| 3  | We have products that target different market segments | | | | | |
| 4  | My firm is willing firm to take risks | | | | | |
| 5  | My firm explores new potential areas of business | | | | | |