

**DETERMINANTS OF ASSET VALUATION APPROACHES IN
ACQUISITION OF FRANCHISED PETROL FILLING STATIONS IN
NAKURU COUNTY**

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DECLARATION AND RECOMMENDATION

Declaration by the Student

I declare that this research project is my original work and has not been presented for any award of any diploma/degree/masters in any University.

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Recommendation

This research project has been submitted for examination with my approval as the Jomo Kenyatta University of Agriculture and Technology supervisor.

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DEDICATION

I dedicate this research project to my family especially my mum Mrs. Serfina Opap for their financial support during my coursework through to during research. I also give thanks and gratitude to my classmates who have been a great team to me during the course of my studies and during the period of my research. I also dedicate this work to the Almighty God for the strength, wisdom, knowledge and good health throughout my work.

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Thank you very much.

ABSTRACT

Acquisitions have become a big part of the corporate world, and are among the most strategic and tactical decisions made by companies. Therefore, asset valuation is gaining prominence within the investment sector. However, the key question that remains to be addressed is how do these valuation factors affect the acquisition of business assets such as petrol filling stations majority of which are still franchises. Therefore, general objective of the study was to investigate the asset valuation factors affecting acquisition of franchised petrol filling stations in Nakuru County. The specific objectives were to determine the influence of sales comparison approach, income approach, and cost approach on the acquisition of franchised petrol filling stations in Nakuru County. The theory of asset pricing, accounting theory and neoclassical theory was used to explain into detail on asset valuation factors and how they affect acquisition. The study used a descriptive survey research design targeting 98 recently acquired and operating franchised petrol filling stations in Nakuru County. From these, the accessible population comprised the investors, the owners of the petrol stations, the management of the petrol stations and asset valuers in the region. Stratified random sampling was used to select a sample size of 130 respondents. Data was collected using questionnaire and analyzed using both descriptive and inferential statistical methods. The study established that the acquiring firms often assess the value of comparable properties when making a petrol station acquisition and the firms consider the transaction dates when the comparable property was sold or leased. However, with regards to property size, the firms factor in the size of the comparable property with respect to the new property before acquiring the same. Besides, it emerged that the acquiring firm considers the location and physical characteristics of the comparable properties, a number of the participants remained neutral while others expressed contrary opinion. The findings of the study further indicated that the firm considers the potential annual gross income from the property before acquisition and that it considers the net operating income from the targeted property. In addition, it emerged that the estimated capitalization rate from the target property and the expected growth rate of the property remain critical in the process of valuation and acquisition of franchised petrol filling stations. It also came out that the acquiring firm takes into account the growth rate of the property income. The study revealed that the acquiring entities greatly consider the cost of the vacant land and the cost of developing structures before making a petrol station acquisition. It further showed that the replacement cost of the structure cannot be ignore before making a petrol station acquisition and that the firm considers the purpose of the structure before making a petrol station acquisition. Besides, the study showed that the time over which the structure has been existing in order to decide on asset acquisition. Besides, the purpose of the structure as a significant determinant of franchised petrol station acquisition. The study recommended the necessity to consider the comparison of sales in relation to the expected performance of the acquiring entity should it consider it fit to make an acquisition. This study also recommended that in full consideration of the perpetual life a business expects to enjoy and the expected costs should as well be considered in relation to the expected useful life of the franchised business entity.

TABLE OF CONTENTS

DECLARATION AND RECOMMENDATION	ii
DEDICATION.....	iii
ACKNOWLEDGMENT	iv
ABSTRACT.....	v
TABLE OF CONTENTS	vi
LIST OF FIGURES	viii
LIST OF TABLES	ix
LIST OF ABBREVIATIONS	x
DEFINITION OF TERMS.....	xi
CHAPTER ONE: INTRODUCTION.....	1
1.1 Background of the Study	1
1.2 Statement of the Problem.....	6
1.3 Research Objectives.....	8
1.4 Research Hypotheses	9
1.5 Significance of the Study	9
1.6 Scope of the Study	9
1.7 Limitations of the Study.....	10
CHAPTER TWO: LITERATURE REVIEW.....	11
2.1 Introduction	11
2.2 Theoretical Review	11
2.4 Conceptual Framework.....	14
2.5 Empirical Review.....	15
2.6 Summary of the Literature Review and Research Gap.....	18
2.7 Research Gaps.....	19
CHAPTER THREE: RESEARCH METHODOLOGY	20
3.1 Introduction.....	20
3.2 Research Design.....	20
3.3 Target Population and Sample	20
3.4 Sampling Design.....	20
3.5 Data Collection Instruments	21
3.6 Pilot Study.....	21
3.7 Data Analysis Procedures	22

CHAPTER FOUR: RESEARCH FINDINGS AND DISCUSSIONS	23
4.1 Introduction.....	23
4.2 Response Rate.....	23
4.3 Respondents' Profile.....	23
4.4 Findings of Study Variables.....	24
4.5 Inferential analysis	27
4.6 Hypothesis Testing.....	31
CHAPTER FIVE: SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS.....	32
5.1 Introduction.....	32
5.2 Summary of Findings.....	32
5.3 Conclusions.....	33
5.4 Recommendations.....	33
5.5 Areas of Further Studies	34
REFERENCES.....	35
APPENDICES	38
APPENDIX 1: QUESTIONNAIRES	38

LIST OF FIGURES

Figure 2:1: Conceptual Framework	14
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LIST OF TABLES

Table 3:1: Spreading The Sample Across The Study Area	21
Table 4:1: Number Of Years The Franchises Has Been Operating.....	23
Table 4:2: Descriptive Statistics for Sales Comparison Approach.....	24
Table 4:3: Descriptive Statistics for Income Approach.....	25
Table 4:4: Descriptive Statistics for Cost Approach	26
Table 4:5: Descriptive Statistics for Acquisition of Franchised Petrol Filling stations	27
Table 4:6: Correlation between Sales Comparison Approach and Acquisition of Franchised Petrol Filling Stations	28
Table 4:7: Correlation between Income Approach and Acquisition of Franchised Petrol Filling Stations	29
Table 4:8: Correlation between Cost Approach and Asset Acquisition	29
Table 4:9: Model Summary	30
Table 4:10: ANOVA.....	30
Table 4:11: Results of Regression Analysis	31

LIST OF ABBREVIATIONS

GAAP	Generally Accepted Accounting Principles
NOCK	National Oil Corporation of Kenya
SAPIA	South African Petroleum Industry Association
SPSS	Statistical Package for Social Sciences

DEFINITION OF TERMS

Capitalization Rate	= Net Operating Income / Purchase Price or Property Value (Miaria, 2011).
Cost approach	In real estate appraisal, the cost approach is one of three basic valuation methods. The others are market approach, or sales comparison approach, and income approach. The fundamental premise of the cost approach is that a potential user of real estate won't, or shouldn't, pay more for a property than it would cost to build an equivalent. The cost of construction minus depreciation, plus land, therefore is a limit, or at least a metric, of market value (Pike & Neale, 2003).
Effective Gross Income	= Gross Income - Vacancy Rate - Rent Loss (Neal & Wheatley 2012)
Franchised petrol station	An agreement in which an entrepreneur buys a license to use another petrol filling station's products, brand, proprietary knowledge and trade secrets. This allows the franchisee to start a business without building up his brand or products. This is a common way to start a business, especially in highly competitive industries (Lim, 2016).
Income approach	Is one of three major groups of methodologies, called valuation <i>approaches</i> , used by appraisers. It is particularly common in commercial real estate appraisal and in business appraisal. The fundamental math is similar to the methods used for financial valuation, securities analysis, or bond pricing. However, there are some significant and important modifications when used in real estate or business valuation (Hill & Jones, 2001).
Net Operating Income	= Effective Gross Income - Operating Expenses (Shleifer & Thaler, 2015)
Property Value	= Net Operating Income / Capitalization Rate (Miaria, 2011).

Sales comparison

The sales comparison approach is based upon the principles of supply and demand, as well as upon the principle of substitution. Supply and demand indicates value through typical market behavior of both buyers and sellers. Substitution indicates that a purchaser would not purchase an improved property for any value higher than it could be replaced for on a site with equivalent utility, assuming no undue delays in construction (Kumar & Bansal, 2008).

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

Mergers and Acquisitions (M&A) are arguably the most popular strategies among firms as they seek to establish a competitive advantage over their rivals. The constant state of global flux arising from forces of globalization and rapid technological changes pile intense competitive pressure on firms. In order to ward off the challenges and explore new opportunities, firms are opting for inorganic growth through various strategic alternatives like mergers and acquisitions (M&A), strategic alliances, joint ventures etc. In the last two decades, during the fifth merger wave, the value of acquisitions has increased dramatically (Kumar & Bansal, 2008). This is evident in the petroleum industry which has seen a number of acquisitions in the recent times. However, questions still arise on the value and profitability of such acquisitions especially with regard to local acquisitions which essentially do not involve major changes in brand.

An acquisition is the taking over by one company of the business assets or share capital of another in exchange for cash, ordinary shares, loan stock or a combination of this. This results in the identity of the target being absorbed into that of the acquirer, Pike and Neale (2003). A definition supplied by Hill and Jones (2001) suggests that a takeover is when the acquiring company gains control of another without the cooperation of its existing management. The acquiring company usually joins forces with the key shareholders, purchase stock on the open market or by soliciting proxies. Local acquisitions of franchises mostly involve transfer of dealership and operating assets and seldom involve the transfer of fixed assets to the new dealer.

According to Lim (2016), acquisition valuation involves the use of multiple analyses to determine a range of possible prices to pay for an acquisition candidate. There are many ways to value a business, which can yield widely varying results, depending upon the basis of each valuation method. Some methods assume a valuation based on the assumption that a business will be sold off at bankruptcy prices, while other methods focus on the inherent value of intellectual property and the strength of a company's brands, which can yield

much higher valuations. Of interest to the present study is the valuation mechanisms used by local dealers when making such acquisitions.

1.1.1 Asset Valuation

In finance, valuation is the process of estimating what something is worth. Items that are usually valued are a financial asset or liability. Asset valuation is the process of assessing the value of a company, real property or any other item of worth, in particular assets that produce cash flows (Lim, 2016). Asset valuation is commonly performed prior to the purchase or sale of an asset or prior to purchasing insurance for an asset. Asset valuation can be based on cash flows, comparable valuation metrics or transaction value. Lim, (2016) further argues that valuations can be done on assets (for example, investments in marketable securities such as stocks, options, business enterprises, or intangible assets such as patents and trademarks) or on liabilities (e.g., bonds issued by a company). Valuations are needed for many reasons such as investment analysis, capital budgeting, merger and acquisition transactions, financial reporting, taxable events to determine the proper tax liability, and in litigation. Valuation of financial assets is done using one or more of these types of models: Acquisitions have become a big part of the corporate world, and are among the most strategic and tactical decisions made by companies.

Absolute value models that determine the present value of an asset's expected future cash flows. These kinds of models take two general forms which are multi-period models such as discounted cash flow models or single-period models such as the Gordon model (Neal & Wheatley 2012). These models rely on mathematics rather than price observation. Fair value is used in accordance with US GAAP (FAS 157), where fair value is the amount at which the asset could be bought or sold in a current transaction between willing parties, or transferred to an equivalent party, other than in a liquidation sale. This is used for assets whose carrying value is based on mark-to-market valuations; for fixed assets carried at historical cost (less accumulated depreciation), the fair value of the asset is not used.

Common terms for the value of an asset or liability are fair market value, fair value, and intrinsic value. The meanings of these terms differ. For instance, when an analyst believes a stock's intrinsic value is greater (less) than its market price, an analyst makes a buy (sell) recommendation. Moreover, an asset's intrinsic value may be

subject to personal opinion and vary among analysts. When a plant asset is purchased for cash, its acquisition cost is simply the agreed on cash price (Miaria, 2011). However, when a business acquires plant assets in exchange for other non-cash assets (shares of stock, a customer's note, or a tract of land) or as gifts, it is more difficult to establish a cash price.

Shleifer & Thaler (2015) discusses possible asset valuation bases. The general rule on non-cash exchanges is to value the non-cash asset received at its fair market value or the fair market value of what was given up, whichever is more clearly evident. The reason for not using the book value of the old asset to value the new asset is that the asset being given up is often carried in the accounting records at historical cost. In the case of a fixed asset, its value on the balance sheet is historical cost less accumulated depreciation, or book value. Neither amount may adequately represent the actual fair market value of either asset. Therefore, if the fair market value of one asset is clearly evident, a firm should record this amount for the new asset at the time of the exchange.

Sometimes, neither of the items exchanged has a clearly determinable fair market value. Then, accountants record exchanges of items at their appraised values as determined by a professional appraiser. An appraised value is an expert's opinion of an item's fair market price if the item were sold. Appraisals are used often to value works of art, rare books, antiques, and real estate. The book value of a fixed asset is the recorded cost less accumulated depreciation. An old asset's book value is usually not a valid indication of the new asset's fair market value. However, if a better basis is not available, a firm could use the book value of the old asset. Occasionally, a company receives an asset without giving up anything for it (Shleifer, & Thaler 2015)

1.1.2 Petrol Filling Stations in the World

The fuel retail sector operates in a highly competitive environment that is characterized by low profit margins and high stock turnover. It is both capital and labor intensive, with approximately 58 000 pump attendants employed in the sector (Thomas, 2005). A study conducted by the DME in 2004, found that the average fuel station sold 270000 liters of fuel per month, with approximately 70% of all fuel stations selling only 200000 liters (Thomas, 2005). Despite the regulation in the industry, the DME found that only 40% of fuel stations are profitable with regard to selling fuel. Many fuel stations have explored alternative sources of income in order

to remain profitable and there is a concern that there are too many fuel stations, resulting in an overtraded market (Thomas, 2005). According to the DME, the retail market may be overtraded by as much as 30% (Visser, 2005).

The reliance of fuel stations on additional sources of income is commonplace in de-regulated markets. In the USA, fuel is considered the volume driver, whilst convenience store sales drive the bulk of the profits (Reid, 2004). A survey performed by National Petroleum News in 2005, indicated that 66.5% of sales relate to motor fuel, but these sales only contributed 31.7% to the gross profit in the industry. Therefore 68.3% of the gross profit in the US fuel retail industry is derived from convenience store sales. The United Kingdom is no different, and Shell Oil Company has admitted that they make no profit from UK fuel sales (Harwood, 2006). Profits from European fuel sales are also being eroded, causing companies to search for new revenue streams (Weirauch, 2000).

In Australia, the level of competition increased with the mergers of Woolworths Limited and Caltex Australia and also Coles Myer and Shell. The Coles Myer/Shell merger announced in May, 2003 included some 584 Shell outlets. The merger enabled Coles to match Woolworths' offer of a 4¢ discount per litre of petrol with grocery purchases above \$30. The merger also benefited Shell which increased fuel market share. Shell is the exclusive supplier of fuel products to the Coles Express network, leases the service station property to Coles, and maintains the presence of Shell branding. Coles Express sets fuel and shop prices and operates the business, provides convenience and grocery merchandise through its supply chain and distribution network, and directly employs service station staff (RandR, 2014).

The merger of Woolworths and Caltex added up to about 160 sites to the existing 290 site Woolworths petrol business. The joint venture company leases all of Woolworths and Safeways petrol outlets. Caltex manages the co-branded petrol and convenience stores located adjacent to or near Woolworths Supermarkets and supply the fuel in New South Wales and Queensland. Woolworths supplies the convenience stores. These two major developments within the fuel and retail industries reveal the highly competitive and evolving nature of these businesses. These two mergers also place pressure on smaller and non-aligned companies such as BP and the independents (RandR, 2014).

South African fuel retailers are already relying heavily on convenience store sales, in an overtraded industry, to remain profitable. With the impending deregulation of the industry, it is imperative that retailers understand the variables affecting the profitability of outlets in order to remain in the industry. According to the South African Petroleum Industry Association [SAPIA] 2015 report the current asking price of a service station business can vary from R1 million to R35 million. In addition, the average working capital requirement of a service station can fluctuate between R1.2 million and R1.5 million. The cost of these investments is based on the usual appraisal criteria of a commercial property such as the profitability of the operation and the evaluation of the physical real-estate, including its assets and location. The report noted that operators can maximize revenues through the addition of alternate profit centers to the forecourts, such as quick-service restaurants, convenience stores and car wash businesses.

1.1.3 The Kenya Petroleum Retail Industry

The Kenyan oil industry is divided into two segments; the upstream and downstream. The upstream comprises of companies that are in the exploration business. This segment has generated a lot of interest among stakeholders with the discovery of commercially viable reservoirs in Ngamia 1 in Turkana on 2012 (Reuters). The other segment; the downstream is concerned with the distribution and marketing of the petroleum products and was dominated by multinationals in the early years. The industry was liberalized in 1994 giving way to the introduction of many new local marketers and retailers. The oil marketing companies fall in the larger Kenyan oil industry, they comprise of companies that are involved in the import and export of petroleum products. The export business is done to neighboring countries like Uganda, Rwanda, Burundi, DRC and South Sudan as these countries are landlocked and have no way to access crude that comes from the Middle East via sea.

According to PIEA insight magazine, there are currently over 35 oil marketing companies in the country. The market is however dominated by six companies, Total Kenya is the leader controlling 16.7 per cent, Vivo Energy trading as Kenya Shell 13.6 per cent KenolKobil controls 11.6 per cent, Hashi Energy 6.1 per cent, Gulf Energy 5.9 per cent and Libya Oil at 4.9 per cent. Other players include Gapco Oil Company, Hass, National Oil Corporation of Kenya (NOCK), Engen, Mogas, Galana Oil Company and other small marketers. The market is divided into the commercial,

retail and export business. The major companies operate in all three segments while the small players choose either one or two areas of operation. Commercial business involves selling of bulk fuel to either resellers or companies for their industrial use, the export business involves selling of fuel across the country's territorial boundaries, and retail business involves selling fuel to the end user at service stations. Out of the over, 35 marketers only 14 have retail networks across the country, others with retail outlets are independent individual.

However, the industry was thrown into disarray were many duty exempt products began to find their way into the market as well as product adulteration (Munyua & Ragui, 2013). According to Wachira (2007), the bigger players began to panic, and would trade at high risk and low margins only to stay in the market. This resulted in the mass exit of these multinationals in the early 2000. Other factors cited by international companies for their exit included increased competition and official price caps. These companies shifted focus to the more lucrative exploration and production activities. Shell was the latest multinational company to exit Kenya, following in the footsteps of five international majors that had left the country in the past decade over dwindling margins. The major multinationals were; Caltex (Chevron), Beyond Petroleum Plc (BP), Mobil, Agip and Esso (Kinyanjui, 2013).

1.1.4 Petrol Filling Stations in Nakuru

Samuel, (2014) argues that basic explanation of assets in Nakuru petrol filling stations reveals that there are two ways in which you can earn money from holding an asset. Assets that have a market value are valued based on multiples of that value. In Nakuru, to attract industry to an area and provide jobs for local residents, the county government of Nakuru gives a company a tract of land on which to build a factory. Although such a gift costs the recipient company nothing, it usually records the asset (land) at its fair market value.

1.2 Statement of the Problem

Despite the petroleum industry often being viewed as lucrative, owning operating a filling station is seldom simple and involves several risks and challenges to the investor. Over the last ten years, the number of fuel stations both in the British and Polish market has been declining. For instance, in the UK, the number of fuel stations declined from more than 9,900 in 2005 to less than 8,600 (nearly a 14% decrease), while in Poland, the total went down from over 6,800 in 2005 to 6,479 at the end of

2014 (nearly a 5% decrease). The main reasons for this situation are the increasing costs of compliance with environmental regulations and strong competition among fuel retailers (UK PIA 2015). According to National Oil Corporation of Kenya (2015) the challenges that the petroleum industry faces include inadequate and aged petroleum infrastructure that provides only a maximum 10 days of operational stocks cover, lack of strategic petroleum stocks, petroleum infrastructure concentrated only on the southern part of the country leading to massive trucking of products, inadequate retail petrol station outlets - only 1,600 stations to serve a population of 44 million Kenyans which is approximately equivalent to South Africa's Gauteng province alone with an area of 18,178 km² and population of 10 million. Still, locally, the KenolKobil website lists a total of 14 petrol filling stations as open for dealership in Kenya including Kobil Milimani in Nakuru County. This is an indicator of the high turnover in the industry.

Majority of the filling stations in the country are franchises, the brand having being developed by the parent oil company, therefore, the investor has virtually no obligation to develop the brand and the products. Investors, however, lack information on how much a brand is worth; the brand is an intangible asset and the valuation is subjective. Acquiring a filling station requires a substantial amount of capital for the franchise to authorize one to be a dealer of their products as well as operating capital. Sales are not guaranteed despite the marketing done by the franchise owner and dealers have to contend with unpredictable customer preferences and location constraints. In several cases, the returns fall below the investments, hence, leading to cashflow constraints. As a result, some franchised petrol filling stations in Nakuru County are now experiencing serious cash flow problems, and these have made it difficult for them to meet debt obligations to their bankers. Consequently, an increasing number of these franchised petrol filling stations are now faced with receivership and foreclosure threats from their bankers. Another influence potentially affecting valuations in business combination is the changing structure of corporate land holdings. The increasing realization that property is an asset to be pro-actively managed has implications for both tenure and valuation. For assets value to be useful during acquisition, the target companies have been found not to have followed a regular depreciation, replacement and revaluation policy. The reasons for using this method is that it can be used as a starting point to be compared and complemented by

other analysis. Where large investment in fixed assets is required to generate earnings, the book value could be a critical factor especially where plant and equipment are relatively new. Therefore, it is evident that that apart from cashflow challenges, other liabilities exist which if not factored during the acquisition, may give misleading information on the property's networth. Mwangi (2012) researched on factors that influence relocation of Multinational Oil companies based in Kenya to other countries and found that major reasons that led to the exit was shrinking profit margins. Chege (2012) focused on challenges of strategy implementation for firms in the petroleum industry in Kenya and found that the major challenges were technology, resource allocation, job responsibilities, prioritization, organization structure, values and resistance to change. However, the key question that remains to be addressed is how do these valuation factors affect the acquisition of petrol filling stations? Previous studies on asset valuation and acquisitions have not focused franchised petrol filling stations in Kenya. This study therefore was set to assess the asset valuation factors affecting acquisition of franchised petrol filling stations in Nakuru County.

1.3 Research Objectives

The study sought to achieve the following objectives:

1.3.1 General Objective

The general objective of the study was to investigate the determinants of asset valuation approaches in acquisition of franchised petrol filling stations in Nakuru County

1.3.2 Specific Objectives

- i. To determine the influence of sales comparison approach on the acquisition of franchised petrol filling stations in Nakuru County.
- ii. To establish the influence of income approach on the acquisition of franchised petrol filling stations in Nakuru County.
- iii. To determine the influence of cost approach on the acquisition of franchised petrol filling stations in Nakuru County.

1.4 Research Hypotheses

Ha₁: Sales comparison approach influences the acquisition of franchised petrol filling stations in Nakuru County.

Ha₂: Income approach influences the acquisition of franchised petrol filling stations in Nakuru County.

Ha₃: Cost approach influences the acquisition of franchised petrol filling stations in Nakuru County.

1.5 Significance of the Study

The overall premise of investment is to create profitable assets and this implies growth. However, acquiring already existing assets can pose significant challenges to the acquiring firms and lead to poor returns or significant losses if proper valuation is not done. Therefore, the outcome of this study is meant to be of benefit to all stakeholders in the petroleum retail industry, purposely, the current franchise holders, potential investors, franchise owners, regulators and future researchers.

The current franchise holders and their management of petrol filling stations in the area and beyond may find the outcome of the study useful determining the asset valuation factors to best adopt in order to help in the event of future acquisition so as to make it profitable. Potential investors and franchise owners may also be enlightened on the critical factors needed to make such acquisitions worthwhile ventures. The regulators and other policy makers at the county and national government levels may also find the findings and recommendations of the study useful in determining level playing fields for future investments into this crucial sector. The study is also expected to be useful to researchers and academicians who may be interested on furthering the research on fixed asset valuation and acquisitions. The findings of this study may also add to the growing fund of knowledge in asset valuation and acquisitions both from a theoretical and empirical perspective.

1.6 Scope of the Study

The study focused on determinants of asset valuation approaches in acquisition of franchised petrol filling stations in Nakuru County. It specifically sought to establish the influence of sales comparison approach, income approach and cost approach on the acquisition of franchised petrol filling stations in the area. A descriptive survey research design was used targeting 98 acquired franchised petrol filling stations in the

County (See Appendix II). The study used only primary data collected through questionnaires from the filling stations owners, their management and asset valuation agents in the area. The study was conducted over a period of six months at a cost of Kshs. 92,218.50.

1.7 Limitations of the Study

The study faced the following limitations. The main limitation of the study was its scope as it mainly focused on fixed and current business asset valuation of franchise dealerships in Nakuru County. As such, the findings could not necessarily hold in other different contexts without some assumptions and modifications. However, every care was taken in the sampling and instrumentation to make the findings more adaptable to other areas of interest for future researchers and other stakeholders. Co-operation is also one of the limiting factors anticipated in the study in that some of the respondents may be reluctant when approached to participate in the study. The researcher, however, sought to create a good relationship with the respondents and inform them of the significance and value of their participation in the study.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

The chapter presents a review of the related literature on the subject under study by various researchers, scholars and authors. The subject is explored from both empirical and theoretical perspectives. The study draws materials from several sources which are closely related to the theme and objectives.

2.2 Theoretical Review

A discussion of the theories undergirding the study subject follows in this section. The theories under review are; The Theory of Asset Pricing, The Accounting Theory and The Neoclassical Theory.

2.2.1 The Theory of Asset Pricing

The pricing of assets is a topic that cuts across financial and asset management (Singh, 2012). In financial management, a firm wants to know the cost of capital and the return required before investing in a long-term investment project. In portfolio management, a key input in portfolio construction is the expected return for an asset. Asset pricing theory describes the relationship between the risks of and the expected return (Neal & Wheatley 2012). An estimate of the expected return that providers of capital require on investments is needed in order to value an asset. Therefore, asset pricing models are premised on the expected return investors require given the risk associated with an investment. Theory of Asset Pricing unifies the central tenets and techniques of asset valuation into a single, comprehensive resource(Neal & Wheatley, 2012).

The two most well-known equilibrium pricing models are the capital asset pricing model developed in the 1960s and the arbitrage pricing theory model developed in the mid-1970s. According to Foster, (2013), asset prices are determined by investors' risk preferences and by the distributions of assets' risky future payments. Economists refer to these two bases of prices as investor "tastes" and the economy's "technologies" for generating asset returns. A satisfactory theory of asset valuation must consider how individuals allocate their wealth among assets having different future payments.

The value of assets can be manipulated to favor either the investor or the property owner and as such this theory may only serve to explain the motivations, risks and ideal situations of asset pricing. However, its needs to be complimented by the accounting theory so as to give a true position of the asset and reduce speculations.

2.2.2 Accounting Theory

According to (Boland, 1992), accounting theory is a set of assumptions and methodologies used in the study and application of financial reporting principles. In the positive accounting theory, the firm value maximization is linked to the arguments of the neoclassical theory of economics based on individualism and the neoclassical maximization hypothesis (Boland, 1992). This theory views the firm as a set of contracts and groups of selfish-minded individuals, and consequently all its members, in their own interest, are motivated to maximize the firm value and as rational individuals. They seek to boost their personal benefit that is directly related to their current pay value, therefore, giving the owners and the management opportunity to get an increased pay now is associate with the profit level. Higher profits will mean bigger dividends to the owners, while the achieved performance results may be linked to the management bonus system.

That being the case, the choice of profit increasing accounting techniques becomes relevant in developing the accounting policy. While accounting procedures are formulaic in nature, accounting theory is more qualitative in that it is a guide for effective accounting and financial reporting. The most important aspect of accounting theory is usefulness, which, in the corporate finance world, means that all financial statements should provide important information that can be used to make informed business decisions. This also means that accounting theory is intentionally flexible so that it can provide effective financial information, even when the legal environment changes. In addition to usefulness, accounting theory states that all accounting information should be relevant, reliable, comparable and consistent. What this essentially means is that all financial statements need to be accurate and adhere to the generally accepted accounting principles (GAAP).

Adherence to GAAP allows the preparation of financial statements to be both consistent and comparable to a company's past financials, as well as the financials of other companies. Finally, accounting theory requires that all accounting and financial professionals operate under four assumptions. The first assumption states that a business is separate from its owners. The second affirms the belief that a company will continue to exist and not go bankrupt. The third assumes that all financial statements are prepared with dollar amounts and not with other numbers like unit

production. Finally, all financial statements must be prepared on a monthly or annual basis.

In the current study, the accounting theory is meant to provide insight into investor decisions on asset value based on the financial position of the business property as declared by the financial reports.

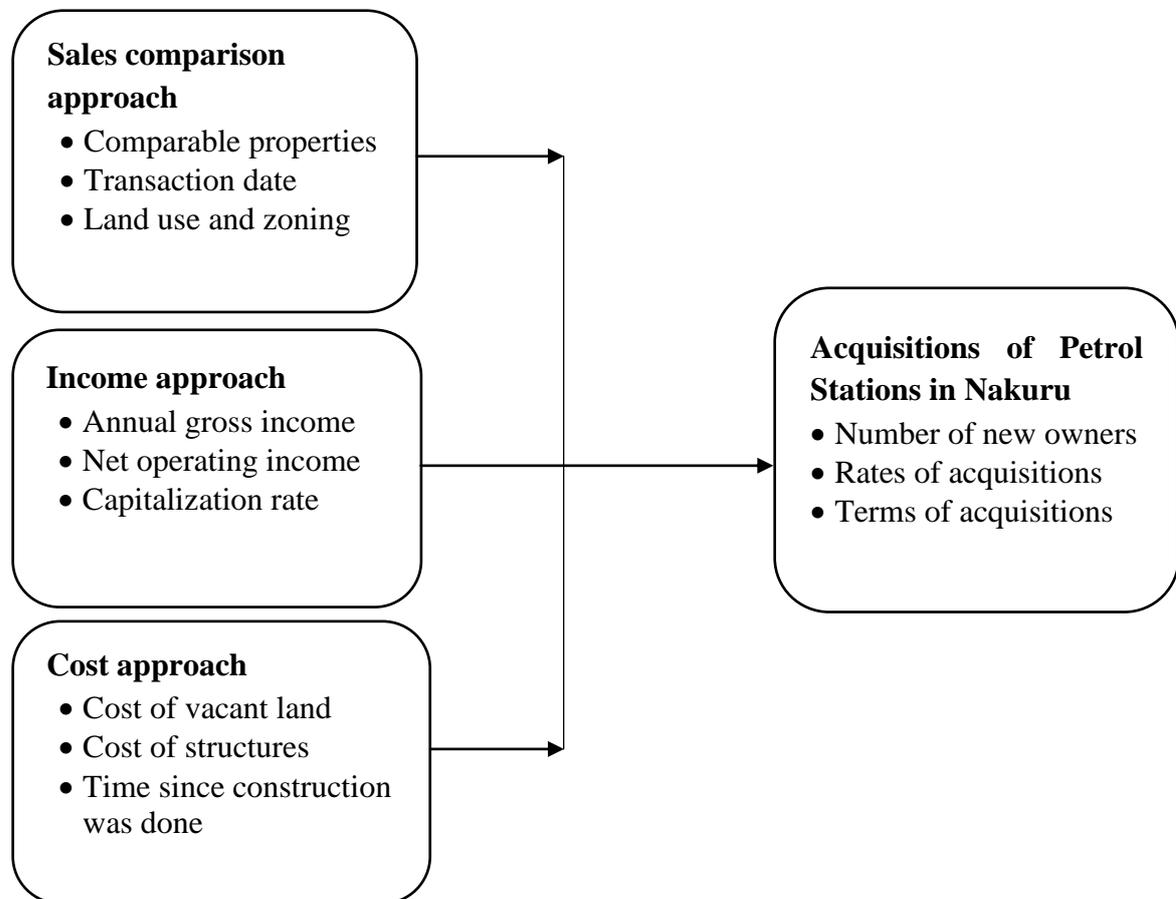
2.2.3 Neoclassical theory

The neoclassical theory states that merger waves occur as firms in specific industries react to economic shocks (deregulation, emergence of new technologies or substitute products and services), which explains why merger activity clusters by industries. The empirical evidence in support of this theory is provided by Gort, (1969) and more recently by Mitchell & Mulherin, (1996) which states that before selling an asset, the asset must undergo valuation). The size and length of each wave largely depends on the number of industries influenced. The emergence of the Internet for instance was more pervasive than the deregulation of utilities. When firm valuations deviate from fundamentals, managers use overvalued stock of their firms as currency to buy assets of undervalued (or less overvalued) firms (Shleifer & Vishny, 2004), which explains the correlation of merger activity with stock market performance.

Accordingly, the overvaluation theory posits that more acquisitions will happen in periods of bubbles. Rhodes, (2005) provide empirical evidence consistent with the market valuations theory of merger waves. The theory also argues that technological change has a major influence on valuation of assets. The term neoclassical economics was officially coined in 1900. Neoclassical economists believes that a consumer's number-one concern is to maximize personal satisfaction, and that everyone makes decisions based on fully informed evaluations of utility. This theory coincides with the idea of rational behavior theory, which states that people act rationally when making economic decisions. Further, neoclassical economics stipulates that a good or service often has value that goes above and beyond its input costs. For example, while classical economics believes that a product's value is derived as the cost of materials plus the cost of labor, neoclassical practitioners say that consumers have a perceived value of a product that affects its price and demand. Finally, this theory states that competition leads to an efficient allocation of resources within an economy (Shleifer & Vishny, 2004). This resource allocation establishes market equilibrium between supply and demand.

2.4 Conceptual Framework

A conceptual framework is a research tool intended to assist a researcher to develop awareness and understanding of the situation under scrutiny and to communicate this. It was used in research to outline possible courses of action or to present a preferred approach to an idea or thought.



Independent Variables

Intervening variable

Dependent Variable

Figure 2:1: Conceptual Framework

The sales comparison approach will be measured by use of the comparable properties, transaction dates for the sales, as well as land use and zoning. The income approach will be measured using the annual gross income of the properties, the net operating income, and the capitalization rate, among others. The cost approach will be measured using the cost of vacant land, the cost of structures, the time since construction was done, etc.

The government regulations will consist of those regulations that apply to transfer and lease of properties, such as taxes, licenses, and permits, etc.

The acquisition of petrol stations in Nakuru will be measured by the number of new owners, rates of acquisitions, terms of acquisitions.

2.5 Empirical Review

This section reviews existing empirical literature on asset valuation and acquisitions. The aim is to provide insight into the variables previously identified and expose gaps that need to be filled by the present study.

2.5.1 Sales Comparison Approach

In arriving at the market value, a subject property needs to be compared with an appropriate number of comparable properties for the similarities and the dissimilarities. The types of properties that are amenable to the treatment by comparison method as suggested by various authors are residential (Rodgers, 2001; Dennis & Pinkowish, 2007), investment (Wincott, 2002), industrial (Ellsworth, 2001; 2002), mining (Healy & Berquist, 2000), contaminated land (Patchin, 1999), vacant land (Guidry, 2003), telecommunication corridor (Bucaria & Kuls, 2002) and office properties (Wincott, 2001; Clendaniel, 2005). Rodgers (2001) proposes that valuers can apply a systematic grid-adjustment process that employs specific percentage or dollar-amount adjustments, highlighting that this approach emphasizes the individual comparable sales as the most meaningful units of comparison called “property-to-property comparison”. Williams (2004) observes that adjustments for the numerous of dissimilarities between a subject property and its comparables can be made on a dollar or a percentage basis.

A competitive market analysis (CMA) is the estimation of the value of a property by comparing it to similar properties in the same area that have been recently sold. If a comparable property is superior to the subject property to which it is being compared, then a negative or minus adjustment is made to take the comparable property from that superior position down to an equal level equal to the subject property. If a comparable property is inferior which it is being compared to the subject property, then a positive adjustment is made. The market itself determines whether the item is superior or inferior.

Buyers of franchised petrol station in Africa favor asset deals because it allows them to amortize any intangible assets or goodwill acquired in the deal when computing taxable income (Wheatley, 1998). Further, any fixed assets acquired in an asset deal are written up to fair market value, allowing for full depreciation of the value of these assets for tax purposes. In a stock deal, the buyer takes a carryover tax basis in the business' assets (Singh, 2012). As a result, it is not uncommon for the acquired fixed assets, intangible assets and/or goodwill to have little or no tax basis, resulting in little or no depreciation or amortization expense for tax purposes. Therefore, it is more beneficial for a buyer to structure a transaction as an asset deal when there are fully depreciated fixed assets or intangible assets associated with the transaction. Market price matter whenever an asset is being sold. Most times after financial years have ended, petrol station prices have been found to hike in price.

Noor Hana Asyikin Nor Hanapi (2002) found that valuers in Malaysia considered the „tenure“ as the most important factor or first rank to adjust in applying comparison method. Basically, in Malaysia there are two types of tenure namely freehold and leasehold interests. Theoretically, the best comparable properties were the properties that have the same tenure as the subject property. Among other significant factors that the valuers attributed as the elements for adjustment are; the transaction and financing terms; transaction date; location and physical characteristics; economic characteristics; land use or zoning; size; and topography. In particular, all the suggested factors were perceived as agreeable to the respondents as the elements for adjustment process in comparison method.

2.5.2 Income Approach

The income approach values property by the amount of income that it can potentially generate. Hence, this method is used for apartments, office buildings, malls, and other property that generates a regular income. The appraiser calculates the income according to the following steps: Estimate the potential annual gross income by doing market studies to determine what the property could earn, which may not be the same as what it is currently earning, and; The effective gross income is calculated by subtracting the vacancy rate and rent loss as estimated by the appraiser using market studies.

The net operating income (NOI) is then calculated by subtracting the annual operating expenses from the effective gross income. Annual operating expenses include real estate taxes, insurance, utilities, maintenance, repairs, advertising and management expenses. Management expenses are included even if the owner is going to manage it, since the owner incurs an opportunity cost by managing it herself. The cost of capital items is not included, since it is not an operating expense. Hence, it does not include mortgage and interest, since this is a debt payment on a capital item. Also there is need to estimate the capitalization rate (aka cap rate), which is the rate of return, or yield, that other investors of property are getting in the local market, thus;

Effective Gross Income = Gross Income - Vacancy Rate - Rent Loss

Net Operating Income = Effective Gross Income - Operating Expenses

Capitalization Rate = Net Operating Income / Purchase Price or Property Value

Therefore: Property Value = Net Operating Income / Capitalization Rate

The capitalization rate is equivalent to the interest rate for bonds or the E/P ratio for stocks: more desirable properties will have lower cap rates than less desirable properties, for the same reason that Treasuries have lower interest rates than junk bonds or high-growth companies have lower earnings-to-price ratios than companies that are not growing. The cap rate takes into account the growth potential of either the property or its income. In other words, investors will be willing to pay a higher price for a property in a desirable neighborhood than for a property earning the same amount of income in a ghetto.

2.5.3 Cost Approach

Generally, the cost approach considers what the land, devoid of any structures, would cost, then adds the cost of actually building the structures, then depreciation is subtracted. The cost approach is most often used for public buildings, such as schools and churches, because it is difficult to find recently sold comparable properties in the local market, and public buildings do not earn income, so the income approach cannot be used, either. A property that already has improvements will usually contribute a certain amount of value to the site, but improvements can also lower property value if the site's potential buyers wish to use the property for another use that would entail removing some of the improvements to the current site.

The cost approach is best used when improvements are new and there is adequate pricing information to value the property components. The cost approach may be less desirable if there are no recent sales of vacant land for which to compare, since the major method of valuing vacant lands is to use the sales comparison approach, or when construction costs are not readily available. The reproduction cost is the cost of duplicating the subject property's structure completely. The replacement cost is the cost of building a similar structure, but using modern construction methods and materials. The replacement cost is the approach most often used because it uses the most modern materials and features, eliminating functional obsolescence, such as rooms of an undesirable size or high maintenance construction materials. The replacement cost is also usually lower than the reproduction cost.

There are three major methods of estimating the reproduction or replacement cost: The square-foot method (aka comparison method) takes the cost per square foot of a recently developed comparable property and multiplies it by the square footage, using the external dimensions of the structures of the subject property: The unit-in-place method estimates the cost of the subject property by summing the costs of the individual components of the structures, such as materials, labor, overhead, and profit: The quantity-survey method estimates the separate costs of construction materials (wood, plaster, etc.), labor, and other factors and adds them together. This method is the most accurate and the most expensive method, and is mainly used for historical buildings.

There is also an index method that uses the actual construction cost of the subject property, then multiplies it by how much the cost of materials and labor have increased since the structure was built. This method is deemed the least accurate and is generally used as a check on the 3 main methods of reproduction or replacement cost.

2.6 Summary of the Literature Review and Research Gap

When negotiating for the purchase or sale of a business, the focus of both the buyer and seller is typically on the transaction price. If valuation is made for possible acquisition sales price is agreed upon by both parties, it should matter whether it is the target company's stock or assets being sold. As discussed above, there are pros and cons to each party involve in asset valuation during the asset acquisition in a transaction depending upon whether it is structured as an asset deal or a stock

deal. The overriding forces typically result in buyers favoring asset deals and sellers favoring stock deals. During the negotiation process, it is important to understand the benefits not only to you, but also to the other party, so that a mutually beneficial deal structure can be achieved. There are three main reasons that parties negotiate for asset or stock deals during acquisition process after valuation (depending upon what side of the table they are sitting on): tax issues, liability issues, and depreciation amortization issues. The general pros and cons related to these issues for buyers and sellers. To both the buyer and the seller, however, the structure of the deal can be just as important as the price. Therefore, this study will fill the research gap on the asset valuation factors affecting acquisition of franchised petrol filling stations.

2.7 Research Gaps

Diverse scholars such as Wheatley (1998), Singh (2012) and Rodgers (2001) have examined diverse valuation methods utilized across the companies. These studies have however not examined the aspects of valuation influence on the acquisition of petrol filling stations which is the focus of this study.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter describes the methods and tools that were used in collecting the available data in order to meet the objectives. It includes the research design, sampling design, data collection method and instruments, data processing and analysis techniques.

3.2 Research Design

The study used descriptive survey research design. According to Orodho (2005), descriptive survey research design can generate accurate information for large number of people over a wide area using a small sample. It is used to explore relationships between variables and allows generalizations across populations. Since this study sought to obtain descriptive and self-reported information on how strategic asset valuation and acquisition of local franchises, the descriptive research design enabled the researcher to expose the respondents to a set of standardized questions to allow comparison.

3.3 Target Population and Sample

According to Kothari (2004), a population is a well-defined set of people, services, elements, and events, group of things or households that are being investigated. The study will target 70 recently acquired and operational franchised petrol filling stations in Nakuru County (See appendix II). From these, the accessible population comprised of the owners, management and investors. Local asset valuers in the area were also involved in the study. This could bring the entire population accessible to the study to 200 persons.

3.4 Sampling Design

The present study used the stratified random sampling in order to obtain the required sample size. Stratified random sampling is also ideal for the other respondents as it has the characteristic of providing each member of the target population in their strata an equal chance of being included in the study while at the same time keeping the size manageable (Kothari, 2004). Since the target population of this study is sufficiently large to warrant to use of random sampling methods, the overall sample size was first calculated using the formula proposed by Yamane (1967) since no population parameters are available;

$$n = \frac{N}{1 + N(e^2)}$$

$$n = \frac{130}{1 + 130(0.05)^2}$$

$$= 98$$

Where N is the population and e = 0.05 is the level of precision. Therefore, the sample size at 95% confidence level was 98 respondents.

The sample size was then allocated into various according to their relative sizes in the target population as shown the sampling frame as shown in Table 3.2.

Table 3:1: Spreading the Sample Across The Study Area

Category	Population size	Sample Size
Management	70	53
Petrol Station Proprietors	45	34
Asset valuers	15	11
Total	130	98

3.5 Data Collection Instruments

The data collection instrument is the device used to collect research data from a sample group. The study relied on primary data. Primary data was collected using semi structured questionnaire that were administered by drop and pick methods and through E-mail. The questionnaires with 5-point Likert scale were used. The questionnaires contained 2 sections: Section A sought data on Background information of the petrol filling stations; Section B sought data on the designed objectives.

3.6 Pilot Study

A pilot study was carried out to assess the effectiveness of the data collection instruments which were then subjected to tests for validity and reliability for standardization of the research instruments to be used in the study before venturing fully into data collection. The pilot study was carried out on a population that is similar to the target population in Kericho County. Modifications, additional questions and other shortcomings found in the questions were corrected.

3.6.1 Validity

Fraenkel & Wallen (1993) observed that an instrument may be constructed to measure a number of things hence the validity of such instrument must be established. Grinnell

(1993) observed that the pretest of research instruments is more concerned with the difficulties respondents may have in answering the questions. It will be further advocated that before testing the instruments, it is important to define the variables to be measured and ask the experts to evaluate the content of the instruments in order to determine its content validity. To ascertain content and face validity of the questionnaires, they were presented to lecturers in Jomo Kenyatta University of science and technology who are authorities in the area for scrutiny and advice. The contents of the instruments were improved based on the advice and comments of the supervisors. The questionnaires were then reconstructed in a way that they relate to each research question.

3.6.2 Reliability

According to Devellis, (1991), reliability is the extent to which the measurement is random error-free and produces the same results on repeated trials. It also refers to consistency of scores obtained by the same test on different occasions, or with different sets of equivalent items or under other variables examining conditions. Cronbach reliability coefficient was used for this study because it helps to establish the internal consistency of the responses. It was used to ascertain the reliability of factors extracted from the Likert scale in the questionnaire because it determined the internal consistency or average correlation in a survey instrument. Cronbach alpha is a coefficient of internal consistency used as an estimate of reliability and it ranges in values from 0 - 1. If the values exceed the standard of 0.7 then the reliability of the model would be considered accurate enough (Nunnaly, 1978).

3.7 Data Analysis Procedures

Data obtained from the questionnaires were first cleaned and edited before being coded and subjected to further analysis using the Statistical Package for Social Sciences (SPSS) version 23.0 computer program. The data was then analyzed using both descriptive and inferential statistical methods. Descriptive analysis was done using means and standard deviations to describe the basic characteristics of the population. Inferential statistics involved the use of Pearson's Product Moment correlation and multiple regression models to determine the nature of the relationship between the variables.

CHAPTER FOUR

RESEARCH FINDINGS AND DISCUSSIONS

4.1 Introduction

This chapter provides a detailed descriptive analysis of the research data obtained the interpretation and discussion of the findings of the study. The chapter first presents the response rate, presents the respondents' profile and the findings of the study variables. The said findings are presented in tables and discussed in this chapter in respect of the specific study objectives.

4.2 Response Rate

According to Schwarz (2013), a response rate refers to the number of units in the net sample used in the study expressed as a percentage of the units in the gross sample. In this study, a total of 98 questionnaires were administered out of which only 79 questionnaires used in the study representing a response rate of 80.6%.

4.3 Respondents' Profile

The researcher examined the respondents' profiles in terms of the number of years the franchised petrol stations have been operational.

4.3.1 Years of Operation

The study sought to determine the number of years during which the franchised petrol filling stations have been operating. Table 4.1 shows the distribution of the respondents according to their lifetime.

Table 4.1: Number Of Years The Franchises Has Been Operating

Years of Operation	Frequency	Percent
Less than 5 years	13	16.5
5-10 Years	7	8.9
11-15 Years	30	38.0
Over 15 Years	29	36.7
Total	79	100.0

From table 4.1, the study revealed that 16.5% of the franchised petrol filling stations had operated for less than 5 years, while only 8.9% have been operational for a period ranging from 5-10 years. In addition, the study also established that a significant majority 38% of the franchised petrol filling stations have been operating 11-15 years while 36.7% of them have been operating for over 15 years, implying that quite an overwhelming majority of the franchised petrol filling stations have been enjoyed perpetuity and thus have been in the business for relatively long.

4.4 Findings of Study Variables

The study examined the determinants of asset valuation approaches in acquisition of franchised petrol filling stations in Nakuru County. The main approaches of asset valuation studied included sales comparison approach, income approach, and cost approach while the dependent variable was acquisition of franchised petrol filling stations.

4.4.1 Descriptive Analysis of Sales Comparison Approach

This section is in line with the first study objective which sought to establish the perceptions on the influence of sales comparison approach on acquisition of franchised petrol filling stations in Nakuru County. Table 4.2 shows the statistical results in details.

Table 4:2: Descriptive Statistics for Sales Comparison Approach

Statements	SA (%)	A (%)	N (%)	D (%)	SD (%)	Mean	Std. Dev
The firm assesses the value of comparable properties when making a petrol station acquisition	43.0	32.9	16.5	7.6	0.0	4.11	.947
The firm considers the similarities in the petrol stations when evaluating a petrol station	40.5	46.8	8.9	3.8	0.0	4.24	.772
The firm considers the location and physical characteristics of the comparable properties	36.7	25.3	24.1	11.4	2.5	3.82	1.130
The firm considers the transaction date when the comparable property was sold or leased	35.4	32.9	21.5	10.1	0.0	3.94	.992
The firm considers the size of the comparable property with respect to the new property before acquiring the same	24.1	34.2	24.1	16.5	1.3	3.63	1.064

From table 4.2, the findings of the study established that the participants strongly agreed (mean = 4.11; Std. dev = .947) that the acquiring firms often assess the value of comparable properties when making a petrol station acquisition and also concurred (mean = 3.94; Std. dev = .992) that the firms consider the transaction dates when the comparable property was sold or leased. However, with regards to property size, the respondents largely agreed (mean = 3.63; Std. dev = 1.064) that the firm considers the size of the comparable property with respect to the new property before acquiring the same while a significant number of the respondents remained neutral. Besides, the study revealed that while a significant majority of the respondents agreed (mean =

3.82; Std. dev = 1.130) that the firm considers the location and physical characteristics of the comparable properties, a number of the participants remained neutral while others expressed contrary opinion.

4.4.2 Descriptive Analysis of Income Approach

This section presents the analysis in accordance with the second objective of the study which sought to determine the perceptions held on the influence of Income approach on acquisition of franchised petrol filling stations in Nakuru County. Table 4.3 shows the descriptive statistics and results in details.

Table 4:3: Descriptive Statistics for Income Approach

Statements	SA (%)	A (%)	N (%)	D (%)	SD (%)	Mean	Std. Dev
The firm considers the potential annual gross income from the property before acquisition of the same	49.4	43.0	6.3	1.3	0.0	4.41	.670
The firm considers the net operating income from the targeted property	46.6	50.6	2.5	0.0	0.0	4.44	.549
The firm considers the estimated capitalization rate from the target property	36.7	39.2	20.3	3.8	0.0	4.09	.850
The firm considers the expected growth rate of the property	40.5	55.7	3.8	0.0	0.0	4.37	.559
The firm considers the expected growth rate of the property income	40.5	45.6	11.4	2.5	0.0	4.24	.755

The findings of the study shown on table 4.3 indicate that the respondents strongly agreed (mean = 4.41; Std. dev = 0.670) that firm considers the potential annual gross income from the property before acquisition and also concurred (mean = 4.44; Std. dev = 0.549) that firm considers the net operating income from the targeted property. In addition, the participants also alluded (mean = 4.09; Std. dev = 0.580) that firm considers the estimated capitalization rate from the target property and also strongly agreed (mean = 4.37; Std. dev = 0.559) that the firm considers the expected growth rate of the property. It also emerged that a significant majority of the participants concurred (mean = 4.24; Std. dev = 0.755) that the acquiring firm takes into account the growth rate of the property income.

4.4.3 Descriptive Analysis of Cost Approach

In this section, an analysis is presented in accordance with the third objective of the study which sought to find out the perceptions held on the influence of cost approach on acquisition of franchised petrol filling stations in Nakuru County. Table 4.4 shows the descriptive statistics and results in details.

Table 4:4 Descriptive Statistics for Cost Approach

Statements	SA (%)	A (%)	N (%)	D (%)	SD (%)	Mean	Std. Dev
The firm considers the cost of the vacant land before making a petrol station acquisition	21.5	51.9	11.4	10.1	5.1	3.75	1.068
The firm considers the cost of building the structures before making a petrol station acquisition	40.5	35.4	19.0	5.1	0.00	4.11	.891
The firm considers the time since the structure was put up before making a petrol station acquisition	15.2	49.4	12.7	21.5	1.30	3.56	1.035
The firm considers the replacement cost of the structure before making a petrol station acquisition	41.8	39.2	3.8	15.2	0.0	4.08	1.035
The firm considers the purpose of the structure before making a petrol station acquisition	36.7	51.9	3.8	7.6	0.0	4.18	.828

Table 4.4 revealed (mean = 3.75; Std. dev = 1.068) that the firm greatly considers the cost of the vacant land before making a petrol station acquisition. The study indicated (mean = 4.11; Std. dev = .891) that the firm considers the cost of building the structures before making a petrol station acquisition. It further showed (mean = 4.08; Std. dev = 1.035) that the firm factors in the replacement cost of the structure before making a petrol station acquisition and the respondents strongly agreed (mean = 4.18; Std. dev = 0.828) that the firm considers the purpose of the structure before making a petrol station acquisition. It also emerged (mean = 3.56; Std. dev = 1.035) that the firm considers the time since the structure was put up before making a petrol station acquisition. However, 23% of the respondents expressed contrary opinion. Besides, majority of the respondents agreed (mean = 4.08; Std. dev = 1.035) that the firm considers the purpose of the structure before making a petrol station acquisition.

4.4.4 Descriptive Analysis of Acquisition of Franchised Petrol Filling stations

This section entails an analysis of the dependent variable. It examined the perceptions held on the acquisition of franchised petrol filling stations in Nakuru county. Table 4.5 shows the descriptive statistics and results in details.

Table 4:5: Descriptive Statistics for Acquisition of Franchised Petrol Filling stations

Statements	SA (%)	A (%)	N (%)	D (%)	SD (%)	Mean	Std. Dev
Most of the new investors taking over the petrol stations are corporate investors	39.2	48.1	5.1	7.6	0.0	4.19	.848
The new investors use a variety of financial instruments when acquiring the petrol stations	36.7	49.4	5.1	7.6	1.3	4.13	.911
Investors are showing a lot of interest in petrol stations in our area	41.8	54.4	3.8	0.0	0.0	4.38	.562
Every year, at least five petrol stations are completely acquired by new investors	17.7	38.0	30.4	6.3	7.6	3.52	1.096
During the acquisitions, there is total transfer of assets and liabilities	16.5	48.1	12.7	17.7	5.1	3.53	1.119

The results of the study indicate that the participants concurred (mean = 4.19; Std. dev = 0.848) that most of the new investors taking over the petrol stations are corporate investors and also strongly agreed (mean = 4.19; Std. dev = 0.911) that new investors use a variety of financial instruments when acquiring the petrol stations. In addition, it revealed (mean = 4.38; Std. dev = 0.563) that investors are showing a lot of interest in the petrol stations. Whereas a considerable number of the respondents agreed (mean = 3.52; Std. dev = 1.096) that every year, at least five petrol stations are completely acquired by new investors, about 30% of the respondents remained neutral while others held a contrary opinion. Besides, from the data obtained, it was agreed by a significant majority of the respondents (mean = 4.19; Std. dev = 0.911) that during the acquisitions, there is total transfer of assets and liabilities.

4.5 Inferential analysis

This study focused on the determinants of asset valuation approaches in relation to acquisition of franchised petrol filling stations in Nakuru county. In particular, the

asset valuation approaches studied include Sales Comparison Approach, Income approach, and cost approach. Correlating each of the said asset valuation approaches with acquisition enabled the researcher to determine the relationships between each independent variable and the dependent variable of the study. Further, a multiple regression analysis was done to assess the relationship between the determinants of asset valuation approaches and acquisition of franchised petrol filling stations.

4.5.1 Relationship between Sales Comparison Approach and Acquisition of Franchised Petrol Stations

This section outlines the results of correlation analysis between Sales Comparison Approach and Acquisition of petrol stations (Table 4.6). The findings were interpreted and discussed accordingly.

Table 4:6: Correlation between Sales Comparison Approach and Acquisition of Franchised Petrol Filling Stations

		Acquisition of Petrol Station
Sales Comparison Approach	Pearson	.204
	Correlation	
	Sig. (2-tailed)	.071
	N	79

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

The study results revealed a weak, positive and statistically insignificant ($r=0.204$; $p>0.05$) relationship between sales comparison approach and the acquisition of franchised petrol filing stations. The analysis implied that the adoption of sales comparison approach in valuation does not influence the acquisition of franchised petrol stations.

4.5.2 Relationship between Income Approach and Acquisition of Petrol Stations

This section outlines the results of correlation analysis between Sales Comparison Approach and Acquisition of Petrol Stations (Table 4.7). The findings were interpreted and discussed accordingly.

Table 4:7: Correlation between Income Approach and Acquisition of Franchised Petrol Filling Stations

	Acquisition of Petrol Stations	
	Pearson Correlation	.601**
Income Approach	Sig. (2-tailed)	.000
	N	79

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

The study results indicated a strong, positive and statistically significant ($r=0.601$; $p<0.05$) relationship between income approach and the acquisition of franchised petrol stations. The analysis implied that the adoption of the income approach to asset valuation significantly influences the acquisition of franchised petrol filling stations.

4.5.3 Relationship between Cost Approach and Acquisition of Franchised Petrol Stations

This section outlines the results of correlation analysis between Cost Approach and Acquisition of Petrol Station of Petrol Station (Table 4.8). The findings were interpreted and discussed accordingly.

Table 4:8: Correlation between Cost Approach and Asset Acquisition

	Acquisition of Petrol Station	
	Pearson Correlation	.586**
Cost Approach	Sig. (2-tailed)	.000
	N	79

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

The findings of the study revealed a strong, positive and statistically significant ($r=0.586$; $p<0.05$) relationship between cost approach to valuation and the acquisition of franchised petrol stations. The analysis implied that the adoption of the cost approach to asset valuation significantly influences the decision for the acquisition of franchised petrol filling stations.

4.5.4 Relationship between Asset Valuation Approaches and Acquisition of Franchised Petrol Stations

This study assessed how the approaches to asset valuation influenced the acquisition of franchised petrol stations in Nakuru County. Tables 4.9, 4.10 and 4.11 show the results of the multiple regression analysis.

Table 4:9: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.747 ^a	.558	.541	.39938

a. Predictors: (Constant), Cost Approach, Sales Comparison Approach, Income Approach

Table 4.9 presents an overview of the results of coefficient of determination (r^2) and correlation coefficient (R). The results of ($r^2 = 0.558$) and ($R=0.747$) reflected a strong positive correlation between the Asset Valuation Approaches and Acquisition of Franchised Petrol Stations in Nakuru County.

Table 4:10: ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	15.114	3	5.038	31.585	.000 ^b
	Residual	11.963	75	.160		
	Total	27.077	78			

a. Dependent Variable: Acquisition of Petrol Station

b. Predictors: (Constant), Cost Approach, Sales Comparison Approach, Income Approach

Table 4.10 presents the findings of analysis of variance (ANOVA) which indicates that the asset valuation approaches significantly influenced Acquisition of franchised petrol stations in Nakuru county ($F = 31.585$; $p < 0.05$) at 95% degree of confidence. These findings were based on the adoption of various asset valuation approaches in relation to acquisition of franchised entities.

Table 4:11: Results of Regression Analysis

		Coefficients^a				
Model		Unstandardized		Standardize	t	Sig.
		Coefficients		d		
		B	Std. Error	Beta		
	(Constant)	-.584	.501		-1.167	.247
1	Sales Comparison Approach	-.073	.085	-.074	.861	.392
	Income Approach	.628	.110	.511	5.721	.000
	Cost Approach	.537	.094	.454	5.687	.000

a. Dependent Variable: Acquisition of Franchised Petrol Stations

The outcomes of the regression analysis (Table 11) were interpreted using the following regression function: $Y = \beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \hat{\epsilon}$ where Y, X₁, X₂, and X₃ represented Acquisition of Franchised Petrol Stations, Sales Comparison Approach, Income Approach, and cost approach respectively. The regression results were therefore interpreted as follows: $Y = -0.584 - 0.073X_1 + 0.628X_2 + 0.537X_3$.

4.6 Hypothesis Testing

From the study findings, the analysis results implied that the researcher failed to reject the first null hypothesis ($t = -0.861$; $p > 0.05$). The study also indicated that the second null hypothesis was rejected ($t = 5.721$; $p < 0.05$) and further revealed that the third null hypothesis was also rejected ($t = 5.687$; $p < 0.05$). In sum, the study revealed that acquisition of franchised petrol stations was significantly influenced by income approach and cost approach to valuation.

CHAPTER FIVE
SUMMARY OF FINDINGS, CONCLUSIONS AND
RECOMMENDATIONS

5.1 Introduction

This chapter provides a detailed summary of findings and conclusions from the study highlighting results that are most relevant to policy issues and managerial decisions as well as the undertakings relevant to asset valuation and acquisition. The chapter further presents detailed recommendations for specific areas requiring action and future research

5.2 Summary of Findings

This section outlines the major findings of the study done in tandem with the specific objectives of the study as pointed out in chapter one. The findings are summarized in every paragraph per variable studied.

Going by the first objective, the findings of the study established that the acquiring firms often assess the value of comparable properties when making a petrol station acquisition and the firms consider the transaction dates when the comparable property was sold or leased. However, with regards to property size, the firms factor in the size of the comparable property with respect to the new property before acquiring the same. Besides, it emerged that the acquiring firm considers the location and physical characteristics of the comparable properties, a number of the participants remained neutral while others expressed contrary opinion.

As per the second objective, the findings of the study indicated that the firm considers the potential annual gross income from the property before acquisition and that it considers the net operating income from the targeted property. In addition, it emerged that the estimated capitalization rate from the target property and the expected growth rate of the property remain critical in the process of valuation and acquisition of franchised petrol filling stations. It also came out that the acquiring firm takes into account the growth rate of the property income.

Moreover, the study revealed that the acquiring entities greatly consider the cost of the vacant land and the cost of developing structures before making a petrol station acquisition. It further showed that the replacement cost of the structure cannot be ignore before making a petrol station acquisition and that the firm considers the purpose of the structure before making a petrol station acquisition. Besides, the study showed that the time over which the structure has been existing in order to decide on

asset acquisition. Besides, the purpose of the structure as a significant determinant of franchised petrol station acquisition.

The results of the study also indicated that most of the new investors taking over the petrol stations are corporate investors and that the new investors use a variety of financial instruments when acquiring the petrol stations. In addition, the study revealed that potential and prospective investors are showing a lot of interest in the petrol stations. Besides, from the data obtained, majority of the respondents indicated that during the acquisitions, there is total transfer of assets and liabilities.

5.3 Conclusions

The conclusions in this section were made in context of the stated specific objectives of the study.

The study results revealed a weak, positive and statistically insignificant relationship between sales comparison approach and the acquisition of franchised petrol filling stations implying that the adoption of sales comparison approach in valuation does not influence the acquisition of franchised petrol stations. In addition, it also indicated a strong, positive and statistically significant relationship between income approach and the acquisition of franchised petrol stations. The analysis implied that the adoption of the income approach to asset valuation significantly influences the acquisition of franchised petrol filling stations. In addition, the findings of the study revealed a strong, positive and statistically significant relationship between cost approach to valuation and the acquisition of franchised petrol stations indicating that the cost approach to asset valuation significantly influences the decision for the acquisition of franchised petrol filling stations.

5.4 Recommendations

The recommendations made herein were based on the study findings in relation to the existing literature. From the findings presented in the previous chapter, the following recommendations were imperative.

First, it is necessary to consider the comparison of sales in relation to the expected performance of the acquiring entity should it consider it fit to make an acquisition. This study also recommends that in full consideration of the perpetual life a business expects to enjoy and the expected costs should as well be considered in relation to the expected useful life of the franchised business entity. This would enable the acquiring entity to develop well-structured financial forecasts to aid in recouping the capital outlays spent on acquisition of the valued petrol stations.

5.5 Areas of Further Studies

Drawing from the study findings, it is imperative that further research be done to unearth the relationship between the choice of a valuation approach and the short-term financial performance of the acquiring firms. The study also recommends future research on the motivations and critical factors underlying the choice of asset valuation approaches in relation to acquisition by cross-listed Oil and Gas Companies in Kenya.

REFERENCES

- Bayrak, (2014). Valuation of firms in mergers and acquisitions; University of Pennsylvania; 2003
- Boland, (1992). A theory model of investor sentiment. *Journal of Financial Economics* 49:307–43.
- Chaplinsky, (2015) Methods of valuation for mergers and acquisitions; University of Virginia Darden School Foundation, Charlottesville.
- Chege, J. (2012). Challenges of strategy implementation for firms in the petroleum Industry in Kenya. Unpublished MBA Thesis, University of Nairobi.
- Durugbo, (2012). A unified theory of under reaction, momentum trading, and overreaction in asset markets. *Journal of Finance* 54:2143–84.
- Economic Perspectives* 4:67–83.
- Ellis, (1979). Investor sentiment and stock returns. *Financial Analysts Journal* (March–April):16–23.
- Foster, (2013). The Clasic M & A Handbook, The Art of M&A; A Merger and Acquisition Buyout Guide 3rd Edition Investopedia: Mergers and Acquisitions;
- Gavirneni, (2002). The aggregation of investor’s diverse judgments and preferences in purely competitive security markets. *Journal of Financial and Quantitative Analysis* 4: 347–400.
- Gervais & Odean (2001). Corporate business valuation for mergers and acquisitions; *International Journal of Strategic Property Management*
- Gort, H. (1969). Theories to follow in business. *Journal of Finance* 56:1911–27.
- Hearth, (2006). On persistence in mutual fund performance. *Journal of Finance* 52:57–82.
- Hong, (2014). Bad news travels slowly: Size, analyst coverage, and the profitability of momentum strategies. *Journal of Finance* 55:265–95.
- Jensen, (1986). A unified theory of under reaction, momentum trading, and over reaction in asset markets. *Journal of Finance* 8:100–47.
- Lentz and Wang, *Journal of Real Estate Research*, 1997
- Lim, (2016). Forward exchange rates as optimal predictors of future spot rates: An empirical analysis. *Journal of Political Economy* 88:829–53.

- Merrill et al. (2008). The variation in asset valuation and acquisition. *Journal of Political Economy* 99:385–415.
- Mitchell & Mulherin, (1996). Asset valuation in dynamic economies. *Journal of Financial Markets*, in press.
- Morris, (1988). Asset returns and inflation. *Journal of Financial Economics* 5:115–46.
- Mwangi, B. (2012). Factors that influence relocation of multinational oil companies based in Kenya to other countries. Unpublished MBA Thesis, University of Nairobi.
- Neal & Wheatley, (2012). The aggregation of asset valuation and preferences in purely competitive security markets. *Journal of Financial and Quantitative Analysis* 4: 347–400.
- NOCK (2015). Overview of the Oil and Gas Sector in Kenya. <http://nationaloil.co.ke>
- Pentland, (2004). A unified theory of underreaction, momentum trading, and overreaction in asset markets. *Journal of Finance* 54:2143–84.
- Rhodes, (2005). Possible theories of asset financing. *Review of Financial Studies* 52:100–07.
- Robertson & Robertson (2014). Service Station Property Market Report 2014. www.randr.com.au
- SAPIA (2015). Annual Report . <http://www.sapia.org.za>
- Schramm, (2015). For HR, HRMagazine, September 2005 Wikipedia: Mergers and Acquisitions;
- Schwarz, G. (2013). Response Rate in European Business Tendency Surveys. *Australian Institute of Economic Research*, 1-54.
- Shleifer & Vishny, (2004). A theory on asset Valation in the Internet sector. Working paper. New York University.
- Shleifer, & Thaler (2015). Returns to buying winners and selling losers: Implications for stock market efficiency. *Journal of Finance* 48:65–91.
- Singh, (2012). Can the market add and subtract? Mispricing in tech stock carve-outs. Working paper, University of Chicago.
- Stein, (2016). The stock market boom and crash of 1929 revisited. *Journal of*
- Strong, (1997). Bad news travels slowly: Size, analyst coverage, and the profitability of momentum strategies. *Journal of Finance* 55:265–95.

Yan, (2008). “Factors affecting the role of HR managers in international mergers and acquisitions: skills, abilities and competencies of HR managers”; University of Kassel.

APPENDICES
APPENDIX 1: QUESTIONNAIRES

Section A: Background information:

1. Name of your franchised petrol station.....
2. Number of years of operation
 Less than 5 years [] 5 – 10 years []
 11 -15 years [] Over 15 years []

Section B: Sales Comparison Approach

Kindly indicate your level of agreement with the statements on Sales Comparison Approach by using the following scale of 5 points where: 1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree and 5 = Strongly Agree

No.	Sales Comparison Approach	5	4	3	2	1
1.	The firm assesses the value of comparable properties when making a petrol station acquisition					
2.	The firm considers the similarities in the petrol stations when evaluating a petrol station					
3.	The firm considers the location and physical characteristics of the comparable property					
4.	The firm considers the transaction date when the comparable property was sold or leased					
5.	The firm considers the size of the comparable property with respect to the new property before acquiring the same					

Section C: Income Approach

Kindly indicate your level of agreement with the statements on Income Approach by using the following scale of 5 points where: 1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree and 5 = Strongly Agree

No.	Income Approach	5	4	3	2	1
1.	The firm considers the potential annual gross income from the property before acquisition of the same					
2.	The firm considers the net operating income from the targeted property					
3.	The firm considers the estimated capitalization rate from the target property					
4.	The firm considers the expected growth rate of the property					
5.	The firm considers the expected growth rate of the property income					

Section D: Cost Approach

Kindly indicate your level of agreement with the statements on Cost Approach by using the following scale of 5 points where: 1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree and 5 = Strongly Agree

No.	Cost Approach	5	4	3	2	1
1.	The firm considers the cost of the vacant land before making a petrol station acquisition					
2.	The firm considers the cost of building the structures before making a petrol station acquisition					
3.	The firm considers the time since the structure was put up before making a petrol station acquisition					
4.	The firm considers the replacement cost of the structure before making a petrol station acquisition					
5.	The firm considers the purpose of the structure before making a petrol station acquisition					

Section E: Value of Petrol Station

Kindly indicate your level of agreement with the statements on Value of the Petrol Station by using the following scale of 5 points where: 1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree and 5 = Strongly Agree

No.	Acquisition of Petrol Stations	5	4	3	2	1
1.	Most of the new investors taking over the petrol stations are corporate investors					
2.	The new investors use a variety of financial instruments when acquiring the petrol stations					
3.	Investors are showing a lot of interest in petrol stations in our area					
4.	Every year, at least 5 petrol stations are completely acquired by new investors					
5.	During the acquisitions, there is total transfer of assets and liabilities					

..... THANKS FOR YOUR PARTICIPATION