A SURVEY OF METHODS USED TO VALUE COMMERCIAL BANKS BY PRACTITIONERS IN KENYA

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DECLARATION

This Finance project is my original work and has not been presented for a degree in any other university.

Signed ..... Date 7th November 2011.

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

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DEDICATION

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ABSTRACT

The primary goal of corporate finance is to maximize corporate value while managing the firm's financial risks. The financing decision is one of the most important roles played by a modern finance manager as it determines the value of a firm. Commercial bank valuation is not a straight forward issue as banks make profits from both sides of the balance sheet as well as owning different types of assets some of which are intangible and have no direct measurable values in the market. Also, forces of demand and supply may not always apply in practice due to ineffiencies in the market and may involve forecast of the future of the firm.

This study is a survey of the different methods used by valuation practitioners to value commercial banks in Kenya. The objectives of the study were to find out which methods are the most preferred by the practitioners and their reasons for using these methods. The population consisted of practitioners stationed in 944 firms from which a sample of 121 practitioners were selected. Primary data was collected through questionnaires and 50 practitioners responded positively and data analyzed through descriptive statistics. Further analysis was done using factor analysis and rotated component matrix. The study found out that the fundamental method is the most frequently used method and gives the truest value followed by discounted future dividends and market multiples approaches. Comparative analysis showed that the different practitioners preferred different valuation methods and factored in some level of subjectivity in the valuation process. The study concluded that there is need for further research in the area of commercial bank valuation to come up with an objective process that would give its true value and also start a regulated professional umbrella body to deal with valuation issues like in the developed countries.

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CHAPTER ONE

INTRODUCTION

1.1 Background

Valuation lies at the heart of much of what we do in finance, whether it is the study of market efficiency and questions about corporate governance or the comparison of different investment decision rules in capital budgeting. Valuation is defined as estimation of market value whether at present (asset appraisal) or in the future (detection of mispriced assets) (Barron's, 2006). To arrive at an accurate estimate of asset value, one of the major approaches must be taken – either the estimation of some sort of intrinsic value (such as dividend-discount models for valuation of equity) or finding a comparable asset which was recently priced by the market (e.g. valuation using accounting ratios or multiples).

The exchange value of a commodity is not identical to its price, but represents rather what (quantity of) other commodities it will exchange for, if traded. (Karl Marx). One might ask, how can "value" be transformed into "price" if a commodity by definition already has a value and a price? To understand this, one needs to recognize the process whereby products move into markets and are withdrawn from markets. Outside the market, not being offered for sale or being sold, commodities have at best a potential or hypothetical price.

Exchange of value is a core concept in finance and economics. Business activities involve exchange of values while finance concentrates on funding and evaluating those activities. An investment decision is based on comparison of an assets intrinsic value and its market price. (Reily and Brown, 1997). Intrinsic value is the actual value of a company or an asset based on an underlying perception of its true value including

all aspects of the business, in terms of both tangible and intangible factors. This value may or may not be the same as the current market value. Value investors use a variety of analytical techniques in order to estimate the intrinsic value of securities in hopes of finding investments where the true value of the investment exceeds its current market value.

Finance and economic theorists have discussed widely the issue of value of the firm as a core economic unit. The significance of the firm is brought about by its importance in the wider economy since scarce resources should be allocated where they yield the highest returns. In finance, in particular the issue of value of the business firm has created a lot of controversies. This is because the profession is based on the need for making decisions that maximize the value of the firm. Various determinants of the value of the firm have been considered at various stages in the development of the profession.

Determination of an optimal capital structure has been a focus of study by theoreticians for decades (Damodaran 2006). The early work made numerous assumptions in order to simplify the problem and assumed that both the cost of debt and the cost of equity were independent of capital structure and that the relevant figure for consideration was the net income of the firm. Under these assumptions, the average cost of capital decreased with the use of leverage and the value of the firm (the value of the debt and equity combined) increased while the value of the equity remained constant. Franco Modigliani and Merton Miller, 1958 showed that this could not be the case. Their contention was that two identical firms, differing only in their capital structure, must have identical total values. If they did not, individuals would engage in arbitrage and

create the market forces that would drive the two values to be equal. Their proof of this proposition was based upon several assumptions (many of which have subsequently been relaxed without changing the results. The issue of financing a firm (Capital structure) particularly created controversies after the publication of the seminal paper "cost of capital, corporation finance and the theory of investment" by Franco Modigliani and Merton Miller in 1958. They later developed the theories for earnings distributions like dividend irrelevance theory and the bird in hand theory which gives high value to firms which distribute more earnings.

The actual determination of the value of the business has not been controversy free. Those who believe in the market driven values have argued that there is no need to value an asset that cannot be sold in the market; it would be a waste of resources as such a value will never be actualized in cash. Others have argued that markets cannot be efficient and therefore the prices in the market may not incorporate the fundamentals that determine the value.

The Oxford Advanced Learners dictionary defines value as "the worth of something in terms of money or other goods for which it can be exchanged". But does the "money" always reflect the worth of the item? According to this definition the value is always equal to the price. That will mean that concepts like under or over valuation of an item in relation to the price do not exist. The underlying assumptions in this case are obviously those of a perfect market where the forces of demand and supply are the sole determinants of the price, and therefore the value of the item on sale.

Investopaedia dictionary defines commercial banks are as financial institutions that accepts deposits and pools those funds to provide credit, either directly by lending, or

indirectly by investing through the capital markets. Within the global financial markets, these institutions connect market participants with capital deficits (borrowers) to market participants with capital surpluses (investors and lenders) by transferring funds from those parties who have surplus funds to invest (financial assets) to those parties who borrow funds to invest in real assets.

Wessel (2005) mentions a number of reasons why business valuation is not straight forward issue. Firstly, each business entity is unique and therefore there is no generally accepted value for certain types or sizes of business. Secondly, businesses own different types of assets some of which are intangible and have no direct measurable values in the market. Thirdly, the supply and demand forces may not apply in practice due to inefficiencies in the market. For example, the flow of information may not be achieved, there may be a limited number of suppliers and buyers and taxation may be imposed during transfer. Fourthly, valuation of a firm involves some forecast of the future of the firm. This is because the value today depends to a large extent on the expected value in future. Even in cases where a business is valued for liquidation purposes the value is based on a 'near' future value. Another reason is that different valuation methods usually yield different values for the same business.

The sale of the Grand Regency Hotel by Kenya's government led to a deafening chorus for the resignation of the then, Finance Minister, after admitting to have sold the five star Grand Regency Hotel for Kshs2.9 billion. The hotel, owned by Kenya's Central Bank, was said to be worth almost three times what the government got from its sale according to the Nairobi Chronicles magazine dated 30th June 2008.

In the high court of Singapore suit Number 193 of 1997, Michael Khoo the plaintiff had sued Harry Elias & Partners for breach in exercising professional duty to exercise reasonable skill and care in the valuation of shares of the unquoted companies. The judged G.P. Selvam ruled that "Generalizations' are dangerous and particularly so in the art of valuation. "*There are no rules determining fair value*". The concept imposes considerable demands on the valuer. Not only is he required to exercise his valuation skills, he is also to employ them in a manner which ensures justice between the buyer and seller. One valuer's concept of fairness may differ from the other."

There are a number of business valuation methods used by various practitioners. In one approach, income approach, estimated earnings are discounted to arrive at the value of the firm. The estimate of future earnings is usually based on past performance of the firm. The estimate of future earnings is usually based on past performance of the firm and expected growth taking into account the expected market conditions. The earnings may be discounted to the present to take into account the time value of money. The main disadvantage of this method is the use of earnings (profits) which are usually derived by use of approximations and subjective accounting policies of the firm. The quality of the earnings may sometimes be put to question especially when they differ significantly with the cash generated for the same period. To overcome the vague meaning of earnings, cash flows are used instead. The discounting factor is the weighted average cost of capital of the firm. Practitioners have agreed the discounted cash flow method, at least in theory, is the most ideal method of business valuation. Damodaran (2001) terms it as the most fundamental method.

Another approach is the use of the book value of the assets of the firm to derive the aggregate value of the firm. This method does not consider the assets which may not be recorded by the firm yet they may be critical to the future of the company. For example, in valuing a professional firm of lawyers one can only aggregate the value of any cash balances, furniture, motor vehicles and office equipment. The value of the human resources in the firm and the firm's image in the market will be excluded yet these are critical to the future of the firm.

A third approach is the use of market prices of securities of the firm being valued or those of a comparable firm. Under this approach, a comparable firm with past valuation transaction, whether in the stock market or elsewhere is identified. Appropriate multiples are derived to compare the firm being valued with the guideline firm and then derive the value accordingly. For example, number of account holders or the asset base of two banking firms can be used as the multiple to compare the value of Kenya Commercial Bank and Equity Bank. For an objective valuation to be arrived at it is assumed that the negotiations involve considerations of objective variables to remove bias.

In comparing the relative approach and the discounted cash flow method, Demodaran (2002) says that the differences between the two is due to differences in view of market efficiency. The discounted cash flow approach assumes the market makes mistakes on individual stocks. He recommends that in following the discounted approach one should have a long term perspective to allow the market to correct itself. In using the relative valuation he cautions on the use of multiples where the differences between the firms cannot be explained using fundamentals like growth,

risk and cash flow patterns.

There are a number of other methods which are used but they are variations of these methods. For example, the replacement value method, which is an estimate of the cost of building up a similar firm from scratch, is more or less a variation of the market approach. Valuation of contingent claims like options may also be considered like another approach. However, if the Black – Scholes model of valuation is considered, there is much resemblance to the discounted cash flow method.

1.2 Statement of the Problem

The existence of the various methods of valuation of a firm is evidence that the valuation of a commercial banks is not a straight forward affair. In fact, Demodaran (2002) says the problem in valuation is not that there are not enough models for valuation; it is that there are too many. Each method has its own strength and weaknesses and therefore none can be universally applied for all business firms at all times. The choice of method of valuation is a valuer's decision that may be dependent on the appropriateness of the method for the particular firm, valuer's convenience and the purpose of valuation (Gabehart and Brinkley, 2002). The purpose for valuation as a basis of choice of method is interesting as it indicates lack of independence in the process and therefore casts doubt on the reliability of the values obtained. One would expect that different practitioners valuing the same business would apply the same approach, and only excuse them if they arrive at marginally different values.

The practice is, however, different; Gabehart and Brinkley (2002) say that the relevant techniques and processes will vary depending on the purpose of valuation; they give an example of valuing a business for purposes of sale and for the purpose of settlement of estate taxes with tax authorities. One would of course be inclined to give a higher figure in the former as compared to the latter. Ideally, the value of a business firm should not be influenced by the purpose for which it is being valued. Further, different methods of business valuation should yield the same valuation if they are to arrive at the true value of the firm.

Business firms' valuation practice in Kenya is not a regulated profession. Professionals involved in valuation, like accountants, are regulated by their professional associations on the modalities of arriving at the valuations. However, there are other practitioners like investment bankers and departments of commercial banks whose modalities of valuation may not be checked by an independent authority. For example, in the case of an investment banker, the Capital Market Act (and regulations under the Act) does not specifically give clear guidelines on the modalities of arriving at a valuation. Although ethical issues are emphasized by the Acts regulations there is no authority that can challenge how the valuation was arrived at. This research would find out which is the most used valuation method and why its preferred so as to urge relevant government bodies and institutions to come up with a unified approach in valuing commercial banks.

Due to changes in the operating environment, several licensed institutions, mainly commercial banks, have had to merge (combine their operations in mutually agreed terms) or one institution takes over another's operations (acquisitions). Some of the

reasons put forward for mergers and acquisitions are: to meet the increased levels of share capital; expand distribution network and market share; and to benefit from best global practices among others. The schedules below detail the Institutions which have merged or participated in acquisitions since 1989 after appropriate valuations were done by commercial bank valuation practitioners and approval given by the central bank.

Table 1.1: Bank mergers in Kenya since 1989 (Source Central bank of Kenya website)

No.	Institution	Merged with	Current Name	Date approved
1	9 Financial Institutions	All 9 Financial Institutions Merged together	Consolidated Bank of Kenya Ltd	1989
2	Indosuez Merchant Finance	Banque Indosuez	Credit Agricole Indosuez	10.11.1994
3	Transnational Finance Ltd.	Transnational Bank Ltd.	Transnational Bank Ltd.	28.11.1994
4	Ken Baroda Finance Ltd.	Bank of Baroda (K) Ltd.	Bank of Baroda (K) Ltd.	02.12.1994
5	First American Finance Ltd.	First American Bank Ltd.	First American Bank (K) Ltd.	05.09.1995
6	Bank of India	Bank of India Finance Ltd.	Bank of India (Africa) Ltd.	15.11.1995
7	Stanbic Bank (K) Ltd.	Stanbic Finance (K) Ltd.	Stanbic Bank Kenya Ltd.	05.01.1996
8	Mercantile Finance Ltd.	Ambank Ltd.	Ambank Ltd.	15.01.1996
9	Delphis Finance Ltd.	Delphis Bank Ltd.	Delphis Bank Ltd.	17.01.1996
10	CBA Financial Services	Commercial Bank of Africa ltd	Commercial Bank of Africa ltd	26.01.1996
11	Trust Finance Ltd.	Trust Bank (K) Ltd.	Trust Bank (K) Ltd.	07.01.1997
12	National Industrial Credit Bank Ltd.	African Mercantile Banking Corp.	NIC Bank Ltd.	14.06.1997
13	Giro Bank Ltd.	Commerce Bank Ltd.	Giro Commercial Bank Ltd.	24.11.1998
14	Guardian Bank Ltd.	First National Finance Bank Ltd.	Guardian Bank Ltd.	24.11.1998
15	Diamond Trust Bank	Premier Savings &	Diamond Trust Bank	12.02.1999

	(K) Ltd.	Finance Ltd.	(K) Ltd.	
16	National Bank of Kenya Ltd.	Kenya National Capital Corp.	National Bank of Kenya Ltd.	24.05.1999
17	Standard Chartered Bank (K) Ltd.	Standard Chartered Financial Services	Standard Chartered Bank (K) Ltd.	17.11.1999
18	Barclays Bank of Kenya Ltd.	Barclays Merchant Finance Ltd.	Barclays Bank of Kenya Ltd.	22.11.1999
19	Habib A.G. Zurich	Habib Africa Bank Ltd.	Habib Bank A.G. Zurich	30.11.1999
20	Guilders Inter. Bank Ltd.	Guardian Bank Ltd.	Guardian Bank Ltd.	03.12.1999
21	Universal Bank Ltd.	Paramount Bank Ltd.	Paramount Universal Bank	11.01.2000
22	Kenya Commercial Bank	Kenya Commercial Finance Co.	Kenya Commercial Bank Ltd.	21.03.2001
23	Citibank NA	ABN Amro Bank Ltd.	Citibank NA	16.10.2001
24	Bullion Bank Ltd.	Southern Credit Banking Corp. Ltd.	Southern Credit Banking Corp. Ltd.	07.12.2001
25	Co-operative Merchant Bank ltd	Co-operative Bank ltd	Co-operative Bank of Kenya ltd	28.05.2002
26	Biashara Bank Ltd.	Investment & Mortgage Bank Ltd.	Investment & Mortgage Bank Ltd.	01.12.2002
27	First American Bank ltd	Commercial Bank of Africa ltd	Commercial Bank of Africa ltd	01.07.2005
28	East African Building Society	Akiba Bank ltd	EABS Bank ltd	31.10.2005
29	Prime Capital & Credit Ltd.	Prime Bank Ltd.	Prime Bank Ltd.	01.01.2008
30	CFC Bank Ltd.	Stanbic Bank Ltd.	CFC Stanbic Bank Ltd.	01.06.2008
31	Savings and Loan (K) Limited	Kenya Commercial Bank Limited	Kenya Commercial Bank Limited	01.02.2010
32	City Finance Bank Ltd.	Jamii Bora Kenya Ltd.	Jamii Bora Bank Ltd.	11.02.2010
33	Equatorial Commercial Bank Ltd	Southern Credit Banking Corporation Ltd	Equatorial Commercial Bank Ltd	01.06.2010

The following Table 1.2 represents the Acquisitions done since year 2000.

(Source Central bank of Kenya website)

No.	Institution	Acquired by	Current Name	Date approved
1	Mashreq Bank Ltd.	Dubai Kenya Ltd.	Dubai Bank Ltd.	01.04.2000
2	Credit Agricole Indosuez (K) Ltd.	Bank of Africa Kenya Ltd.	Bank of Africa Bank Ltd.	30.04.2004
3	EABS Bank Ltd.	Ecobank Kenya Ltd.	Ecobank Bank Ltd.	16.06.2008

No surveys on commercial bank valuation methodology have been published in Kenya to the knowledge of this author yet there has been phenomenal growth of licensed banks in Kenya which currently stand at forty three and some of these banks have had numerous branch and regional expansion. Also, international banks want to have their presence in the country. Professional business valuation in developed countries is a well regulated profession. In the United States, for example, professional business valuers undergo thorough training to obtain certifications like Certified Valuation Analyst (CVA) (Gabehart and Brinkley, 2002). The country also has professional associations, the American Society of appraisers (ASA), which issue and oversee use of business valuation standards. The markets in such countries are also fairly efficient due to efficient flow of information. In view of the intricacies involved in valuation of a business, it is important to identify the business valuation methods used to value commercial banks and also identify the reasons for the use of these methods. It is important to identify if, and why, practitioners' choice of a method should be influenced by the purpose of the valuation.

1.3 Objectives of the Study

The following are the objectives of the study:

a) To identify the business valuation methods used in valuing commercial banks by business practitioners in Kenya.

b) To establish the reasons for choice of these methods and what factors influence their choice of method.

1.4 Importance of the Study

This study is of value to the following:

a) Scholars can use the study to understand the field of valuing commercial banks and also as a basis for further research.

b) The government and other bodies involved in fiscal policy on business valuation can use the study in understanding the methods used in commercial banks valuation and designing taxation measures and or regulations that would maximize revenue and also facilitate business transfer.

c) Business valuation practitioners will know the valuation methods used by their competitors and the reasons for their use. This can help review their strategy and also reassess their operations in the market.

d) The general public will also be enlightened on the mysteries that surround commercial banks valuation methods and their appropriateness.

e) Business owners and potential owners in identifying the appropriate methods for use in identifying the appropriate value in buying businesses or commercial banks during mergers and acquisitions.

CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

Corporate finance is the area of finance dealing with monetary decisions that business enterprises make and the tools and analysis used to make these decisions (Freixas and Rochet, 1997). The primary goal of corporate finance is to maximize corporate value while managing the firm's financial risks. The following are the major decisions made by managers in a firm.

The investment decision

These are the decisions that managers make that the firm invests in assets that yield more than the minimum acceptable return. In cases of more than one investment alternatives the firm should opt for the option which will yield the highest value to the firm (Brealey and Myers, 2000). Management must allocate limited resources between competing opportunities and invest in the projects that yield highest returns.

The financing decision

Achieving the goals of corporate finance requires that any investment be financed appropriately. Management must always attempt to match the financing mix to the asset being financed as closely as possible, in terms of both timing and cash flows. Management must therefore identify the "optimal mix" of financing— the capital structure that results in maximum value (Brealey and Myers, 2000). One of the main theories of how firms make their financing decisions is the Pecking Order Theory, which suggests that firms avoid external financing while they have internal financing available and avoid new equity financing while they can engage in new debt financing

at reasonably low interest rates. Another major theory is the Trade-Off Theory in which firms are assumed to trade-off the tax benefits of debt with the bankruptcy costs of debt when making their decisions.

The dividend decision

Whether to issue dividends, and what amount, is calculated mainly on the basis of the company's unappropriated profit and it's earning prospects for the coming year. The amount is also often calculated based on expected free cash flows i.e. cash remaining after all business expenses, and capital investment needs have been met. Management may also decide to retain the returns to pursue growth strategies and this poses the agency problem. (Freixas and Rochet, 1997)

2.1 Theoretical Literature Review

Accountants have had the problem of the value as long as the profession has been in existence. Questions like, should the value equal its price? If the market price of an item already bought changes does the value change? What if the value of the measuring currency changes, does the value of the commodity change? This has led to several concepts of value (Wood and Sangstar, 1999): book value is the value based on the historical price as adjusted for depreciation and appreciation according to the policy of the recording firm and the principles of accounting as guided by the guidelines issued by the profession and other regulatory agencies.

Another concept is the fair value which is the value of an item already bought as adjusted for any changes in the market price of the product. The term fair denotes acceptance or congruent of perceptions of the value by the parties transacting. The international federation of accountants defines fair value as the amount for which an

asset can be exchanged, or a liability settled, between knowledgeable, willing parties in an arm's length transactions. Market value is the price the bought item can cost if offered in the market now. (Wood and Sangstar, 1999)The replacement value is the cost that can be incurred in replacing an asset to its original location and condition.

Deprival value, some writers have argued, is the true value of the asset or group of assets as it represents by a firm if it is deprived of the use of that asset(s). The intrinsic value is the underlying value of an asset. It is value from the individual perspective which will fulfill his or her need. It is compared to the price of the item on sale in order to determine whether the price is fair or not. Of the many concepts of value there is none that cannot be faulted. This study attempts to understand the "why" of the choice of the methods of valuing commercial banks.

2.2 Determinants of the Value of a Firm

Why should anybody bother to value a firm? Shouldn't the market value any good or service that is of value? Of course the market attempts to value assets. However, since value is more of perception than real, the level of success achieved can only be a matter of conjecture. Different researchers have discussed the issue of rationality and irrationality of price decisions in relation to value (Harris and Raviv, 1991). The traditional view of firm contends that there is an optimal mix of debt and equity that maximizes the value of the firm (Brealey and Myers, 2000). Therefore, a firm with the optimal mix will have reached the maximum value. This has been discredited empirically. (Haris and Raviv, 1991)Market valuation on the other hand is assumed to be "correct" if the market can be trusted in arriving at the valuation. In other words, until the market is efficient it cannot be trusted to arrive at the intrinsic values of the

items on sale. Therefore, a valuation of a firm will only be necessary if we believe the market is not efficient to arrive at the fair value of the firm.

The value of the firm is the present value of the expected cash flows from both the assets in place and the likely future growth, discounted at the cost of capital according to Damodaran (2002). He says that for a firm to increase its value it has four options. First, to increase cash flows generated by existing investments. Second, increase the expected growth rate in earnings or cash flows. Third, increase the length of the high growth period. And, finally, the firm has the option of reducing the cost of capital. He sums up these options as three fundamentals of a business that never change: the capacity to generate cash flows from existing investments, the expected growth of the cash flows over time and the uncertainty associated with whether these cash flows will be generated in the first place.

What about the firm capital structure? Does financing matter in valuation? It does, but only to the extent that it affects the above four factors. According to the seminal paper of 1958 by Modigliani and Miller (MM) the method of financing a firm is irrelevant as far as the firm's value is concerned. 'The market value of any firm is independent of its capital structure and is given by capitalizing its expected return at the rate appropriate to its risk class" MM (1958). There was a wide range of assumptions on efficiency of the market, the absence of taxes and frictionless in the operations of the market. However, later MM relaxed the assumptions by introducing taxes into their model in which case the method of financing became relevant. The cost of debt is lower than equity since interest on debt is tax deductible while dividends on equity are not. Van Horne (1995) explains the impact of the market on the value of the firm. If

the expected return of a firm's security is derived using the Capital Asset Pricing Model (CAPM) it follows that a firm's value is not dependent on its own risk (which can be diversified) but more on the unsystematic risk. He concludes that all decisions of the firm should be judged in the market context.

It would be logical to argue that a factor that does not touch on the four factors above should not affect, negatively or positively, the value of the firm. However, since decisions are made by human beings the obvious bias affects the ideal principles that should guide decision making. For example, stock market prices are known to fluctuate without any evidence of effects of the above factors (Zarowin, 1989). Market inefficiencies also create seasonalities and actions of insider trading, and evidence to this has been documented(Ross et al, 1990) Ramakrishna and Thakor (1994) argue that the assumption in most valuation models is that there is no moral hazard for management to influence the outcome. They relaxed this assumption and postulated cases where managers' actions may be geared as affecting the company's value in the market rather than the intrinsic value of the company.

2.3 Valuation of Commercial Banks

Copeland et al (1996) argues that valuation of commercial banks is peculiar and requires special treatment as banks are highly regulated; generates profits on both sides of the balance sheet; faces high exposure to credit default risk and volatile interest rate risks. Valuation of commercial banks firm can be viewed from two angles. First, the valuation of the firm in its entirety and secondly, the valuation of the firm's securities in the market, the aggregate of which makes the market value of the firm.

Valuation of business firms in Kenya is performed by accountants, either as individuals or through their firms, investment bankers and advisors, the business owners themselves, with or without the required business expertise and various management consultants with knowledge in business valuation.

There are varied reasons for valuation of a business firm (Gabehart and Brinkley, 2002). These may include for the purpose of establishing asking or bid price and terms before sale or purchase of a firm, to fulfill the requirements of a buy – sell agreement between partners of a business firm, to assist a buyer in obtaining bank financing to grow a business, to help the owner implement or exit a strategic plan, to satisfy the curiosity of the owner about the firm's value or facilitate restructuring of the firm; attract capital; aid in estate and gift planning; meet governmental requirements; buying or selling a full or partial interest in a business; A business merger or acquisition; admission or retirement of a partner in a business; property division in a divorce, when marital property includes an interest in a business; Employee Stock Ownership Plans (ESOPS) require valuation of employer securities upon their acquisition and dispute resolution in cases where damages must be determined for lost value of a business, such as breach of contract, patent infringement, franchise disputes and antitrust suits.

The valuation process should begin with an analysis of the aggregate economies and overall securities market and then continue to the different industries with a growth perspective and finally on the individual firm (Reily and Brown, 1997). A country's economy is relevant due to the cultural practices, the political environment and the fiscal, monetary and general economic policies of the country. The industrial analysis

provides the industry – specific characteristics like the markets of the products, technological changes, competition, both the current and the potential, and how the industry is affected by the business cycles like world economic expansion and the contractions.

2.4 Empirical Literature Review

No survey on valuation of commercial banks has been conducted known to me. However, there are studies on models trying to depict the value of a bank. Such studies have been conducted by Calomiris and Nissim (2007) by using activity based method of valuing bank holding companies. They concluded that banks create value through the types of assets and liabilities they create (e.g., lending and deposit taking relationships). Bank income streams reflect heterogeneous sources of income which differ in their margins of profitability and persistence. Their approach to valuation permitted potential differences in the composition of assets, liabilities, income and expenses, and in the profitability and persistence of different sources of income, to reflect themselves in estimated relationships that relate the composition of the balance sheet and income statement to bank value.

Bokov and Vernikov (2003) compared various techniques of valuating banks and quantified the impact of various governance practices on the valuation of banks in Russia. They yielded a model based on conversion of bond yields into a used valuation multiples model. They also concluded that investors prefer mature board of directors and appear to place no value on a bank's exposure to the scrutiny of rating agencies, or the quality of external auditors.

Mercer (2006) explored the fundamentals of bank valuation and developed various ratios for comparisons with other similar banks in the industry. He itemized the different components of the balance sheet and income statement and analyzed ratios that show bank uniqueness from other firms.

2.5 Approaches to Commercial Bank Valuation

According to Flannery and James (1984), the value of a bank is a complex and involved topic. Determining value requires an understanding of the purpose of the valuation, the underlying business, the assets involved, the outlook for the market served, competitive position, financial history and other factors.

They further state that establishing the value based solely on a bank's book value is convenient shorthand, but not a good technique of establishing actual value. Regardless of the potential need for a proper valuation, commercial banks and bank holding companies have several characteristics that distinguishes them from other types of businesses and that influence the application of valuation techniques. Such characteristics include recent financial performance; history of leadership; market capitalization which equals the number of outstanding shares of stock times the price of each share and theoretically, it represents how much money an investor would need to attain if he wanted to purchase the bank immediately; the amount of assets versus debt that a bank has its books and finally, state of the economy and trends impacting the financial sector. For example, during the subprime mortgage crisis of 2008, banks in the United States of America failed or lost tremendous value due to poor investment decisions and the value of these banks fell sharply raising general fears about the health of the commercial banking sector and on the expectation of less business due to a worsening economy

There are varied approaches to valuation of commercial banks which may be dependent on the purpose of valuation and the subjective preference of the valuer. The common approaches include applications of market multiples, such as Price-to-Earnings or Market-to-Book Value ratios; discounted value of future dividends; discounted value of future economic profits and 'Fundamental' valuation formula. (Koller *et al.*, 2005).

2.5.1. Market Multiples

The market multiple approach is the simplest way to value a bank. A common multiple used by bank analysts is the Price-Earnings ratio (P/E).

2.5.1.1 Price Earnings (P/E) Multiple

Damodaran (2006), explains three P/E multiple steps as follows:-

Step1: Evaluate the Market P/E for Comparable Banks Listed on an Exchange

In the first step, one searches for comparable, similar banks listed on the stock market, and one computes for each the ratio of the stock price to the earnings-per-share. This is the P/E ratio. The share price refers to the most recent trading price. The earnings-per-share could be the last published earnings-per-share (historical P/E) or an average of the forecasted earnings per share by analysts (forward P/E). One then computes the average P/E for the set of comparables. The choice of comparables will include banks with similar growth and risk profile. Damodaran (2006) is a comprehensive reference on valuation which calls the attention to the choice of relevant comparables. In banking, besides growth and risk, one will be careful to choose banks with similar business mix across retail banking, private banking, corporate and investment banking, and trading activities.

Step 2 Forecast the Bank's Earnings-per-Share (EPS)

The second step entails a forecast of the bank's earnings-per-share. It could be an extrapolation based on last year's realized earnings, or on any information about the likely earnings in the future.

Step 3 Valuation

In the third step, it is assumed that the stock market will value the earnings of the bank in the same way it is valuing the earnings of comparable banks:

Equation 1.1

$$Value_{bank} = P/E_{comparables} \times forecasted\ EPS_{bank}$$

Although very much used by analysts in many industries, this approach faces a specific problem in banking. As banks take sometimes large provisions for credit losses, they can report a very low profit in a specific year. As the market understands that the very low earnings is temporary and will return back to normal in the following years, the P/E ratio (the price divided by exceptionally low earnings) goes up substantially. In other words, the timing of a one-time provision for credit losses can create large volatility in the P/E ratio of banks. (Koller et al., 2005)

2.5.1.2 Market to Book Value Multiple

Damodaran (2006) explains that market Based Valuation (MBV) is more stable as compared to price earning multiple approach. He further says that this method mainly consists of two steps as follows:-

Step1: Evaluate the Market-to-Book Value ratio (M B V) for Comparable banks

In the first step, one searches for comparable, similar banks listed on a stock market, and one computes for each the ratio of the market value of shares to the accounting book value of equity. This is the market-to-book value ratio. The share

price refers to the most recent trading price. The accounting value of equity is the shareholders' equity reported in the financial accounts. One then computes the average MBV of the banking sector.

Step 2: Pricing

In the second step, it is assumed that the stock market will value the equity of the bank in the same way it is valuing the equity of other banks:

Equation 1.2

$$\text{Value of equity}_{\text{bank}} = \text{MBV}_{\text{comparables}} \times \text{Book Value of Equity}_{\text{bank}}$$

As was the case with the P/E ratio, differences in profitable growth opportunities, risk profile, or business mix will affect the MBV ratio of a specific bank. Similarly, the provisioning policy for non- performing assets or the accounting rule used at the time of a merger can affect the reported book value of equity. These characteristics must be taken into account, whenever relevant.

The multiple approach is recommended for use by bank analysts. Opponents to this approach recommend not focusing on accounting figures such as earnings or book value of equity, but on the reality of future cash flows generated by the bank. A second problem with the market multiple approach is the implicit assumption that the stock market values correctly the shares of banks. This might often be true in efficient markets. Still, it might be useful to understand the economic/business assumptions which justify the current valuation figures. One can then exercise judgment and decide whether one is comfortable with that set of assumptions. This approach provides a useful bench mark for current valuation by the stock market. (Koller et al., 2005)

2.5.2 Discounting Future Dividends

The second approach to value a bank recognizes that the owners of shares, the shareholders, are likely to receive dividends in the future (Damodaran, 2006). One therefore forecast and discounts the dividend stream expected from this equity investment. In practice, one starts with a detailed forecast of annual profits, a forecast of the part of earnings that needs to be retained to grow the equity (needed to finance the growth of the bank), to arrive at a forecast of dividends. Detailed dividend forecast can be for up to five years, after which one assumes simply that dividends will grow in perpetuity at a constant rate, *g*. Dividends are risky, and it is not a surprise that shareholders will use a higher risk-adjusted rate to discount these cash flows (Bhattacharya and Thakor, 1993). The higher rate is justified by the risk aversion of investors who need to be compensated for taking some risk. The risk-adjusted discount rate to value shares, R_S is the risk- free rate on government bonds plus a risk premium.

Equation 1.3

$$Value = \frac{D_1}{1+R_s} + \frac{D_2}{(1+R_s)^2} + \frac{D_3}{(1+R_s)^3} + \frac{\frac{D_4}{R_s - g}}{(1+R_s)^3}$$

A specialist in corporate finance will notice a significant difference in the way one values non- financial corporations, and in the way one values banks. In standard corporate finance, one often forecast first the value of free cash flows, the cash flow available to meet financial obligations such as debt or equity. These free cash flows are discounted at a weighted average cost of capital (debt and equity), so as to compute the value of the assets of a company. One then deducts the debt to obtain the value of equity. In banking, one focuses directly on the value of equity and a forecast of dividends (after payment of interest). The reason is that the management of the debt

(paying eventually low interest rate on some types of deposits) is a source of value creation in a bank (Bhattacharya and Thakor, 1993). As it can fluctuate with growth of deposits and changes in competition and margins, there is no simple concept of a constant weighted average cost of capital. The focus is on forecasting dividends which will take into account the growth of deposits and eventual changes in margins.

The dividend method is obviously a sound method to value banks. One, however, has to be careful of not extrapolating simply short term earnings to forecast future earnings. A trivial and classical example is the case of an upward sloping interest rate curve, with the funding of long term fixed-rate loan with short term funds. (Damodaran, 2006).

2.5.3. Present Value of Future Economic Profits

This is an alternative approach in corporate finance. It relates the share price to the Economic Profit (EP) of the bank, that is the value created by the bank on top of the opportunity cost of shareholders' equity (Mc Taggart *et al.* 1994)

Equation 1.4

$$\text{Economic Profit}_t = EP_t = \text{Profit}_t - (\text{Equity}_t \times \text{Cost of equity})$$

$$= \text{Profit}_t - (\text{Equity}_t \times R_S).$$

Economic Profit is an intuitive concept. It recognizes that shareholders can invest in stocks yielding an expected return R_S. Value is created during a year when the profit exceeds this opportunity revenue. Thus, the market value of equity today is equal to current equity, E_0, plus the present value of future economic profits:

Equation 1.5

$$Market\ Value\ of\ Equity_0 = Equity_0 + \sum_{i=1} (Profit_i - Cost\ of\ Equity_i)$$

$$Equity_0 + \sum_{i=0} (ROE_i x Equity_i - Equity_i x R_s)$$

In a case where equity, dividends, and economic profits are growing forever at a constant rate g (with g smaller than R), we will have the following equation which will incorporate the constant growth perpetuity (Copeland et al, 1996)

Equation 1.6

$$Market\ Value_0 = E_0 + \frac{(ROE - R_s) x E_0}{R_s - g}$$

For this case of perpetual growth, the formula gives intuitive insights into the market to book value ratio:

Equation 1.7

$$\frac{MV_0}{E_0} = \frac{ROE - R_s}{R_s - g} + 1$$

The market-to-book value ratio is driven by the return on assets and growth in earnings. With these methods the valuer has to be careful of not extrapolating short term earnings to forecast future earnings and the assumptions about drivers of future earnings must be carefully spelled out. (McTaggart *et al.* 1994)

2.5.4. 'Fundamental' Valuation Method

This method provides a transparent framework to analyze the sources of value of banks and allows discussion in an integrated manner of several bank managerial decisions, such as fund transfer pricing, capital management, loan and deposit pricing.

and the measurement of interest rate risk on the banking book. (Brewer and Jackson, 2006). It is also known as the discounted cash flow (DCF) method or valuation on fundamentals method. Whereas market-based values are derived from comparatives, DCF values are based on the company's forecast results.

The market value of equity of the bank is the risk-adjusted value of future dividends, discounted at the cost of equity. The framework below is used to obtain a fundamental valuation formula. The intuition is that the single dividend flow can be decomposed into the cash flows linked to loans, bonds, or debt. Equity is seen as a portfolio of long positions in assets and short positions in debt. (Cornell Bradford, 1999)

The contractual rate on these assets and deposits are l, b, d while the current expected return are l^*, b^*, and d^* respectively.

Equation 1.8

$$\begin{aligned} Market\ Value\ of\ Equity_0 = [\,& L^*_0 + B^*_0 - D^*_0\,] \\ & + \frac{(1-t)x(b^*_1 - d^{**}_1)xD^*_1}{(1+b^{**}_1)} + \frac{(1-t)x(b^*_2 - d^{**}_2)xD^*_2}{(1+b^{**}_1)x(1+b^{**}_2)} + \ldots \\ & + \frac{(1-t)x(l^*_1 - b^{**}_1)xL^*_1}{(1+b^{**}_1)} + \frac{(1-t)x(l_2^* - b_2^{**})xL^*_2}{(1+b^{**}_1)x(1+b^{**}_2)} + \ldots \\ & - \frac{(1-t)\,x\,Oper.\,Expenses_1}{(1+b^{**}_1)} - \frac{(1-t)xOper.\,Expenses_2}{(1+b^{**}_1)x(1+b^{**}_2)} - \ldots \\ & - \frac{t\,x\,b^{**}_1\,x(L^*_1 + B^*_1 - D^*_1)}{(1+b^{**}_1)} - \frac{t\,x\,b^{**}_2\,x(L^*_2 + B^*_2 - D^*_2)}{(1+b^{**}_1)x(1+b^{**}_2)} - \ldots \end{aligned}$$

Where

L = loan (perpetuity)

l = expected return on loan

t = corporate tax rate

l^{*} = expected return on new loan

b^{**}= shareholders' opportunity rate

Finally, in this formula we need to include the risk of default and duration mismatches on deposits with undefined maturities, such as demand and savings deposits and loans whether long term or short term advanced to customers as recommended by the Basel II capital adequacy requirements and Tier I and II capital regulations.

CHAPTER THREE

RESEARCH METHODOLOGY

3.0 Research Design

This is a descriptive study in the form of survey. The survey is appropriate because primary data was required and data was collected from many study units. The researcher mainly used qualitative data and analyze it using factor analysis and rotational component matrix analysis.

A survey method is appropriate as it answers the who, when, where and how of research queries (Nachmias and Nachmias, 1996). This study was mainly concerned with the "how" and "why" of commercial banks valuation in Kenya.

3.1 Population of Study

The population of study comprised of valuation practitioners who are involved in valuing commercial banks in Kenya. This comprises the following groups:-

Accountants

All accountants registered to practice under the accountants Act. Currently, there are 889 registered firms of accountants registered by the Institute of Certified Public Accountants of Kenya (ICPAK).

Investment bankers

All the 17 investment bankers licensed under the Capital Market Act

Investment advisors

All the investment advisors licensed under the Capital Market Act.

Stockbrokers

All the stock brokers licensed under the Capital Market Act.

These groups were selected to represent commercial bank valuation practitioners in Kenya because they have the professional skills to undertake valuation and are licensed by their respective umbrella bodies upon attainment of specified professional qualification and skills. Representative samples were selected from this population.

3.2 Sampling

The researcher selected commercial banks valuation practitioners based in the city of Nairobi from the above population. Most of the head offices are based in Nairobi thus the choice of the City. The research targeted 10% of the registered accountants which translated to 89 practitioners. Also, 60% of professionals in registered investment bankers, stockbrokers and investment advisors will make up the sample size.

3.3 Data Collection

Primary data was used in the study. It was collected by way of personal in-depth interviews with professional valuation firms' personnel. The interview guide consisted both of open and closed ended questions to allow respondents express their views without undue limitation. The interview took place within the respondents' place of work during less busy times. Also, questionnaires were given to the respondents of the selected firms to fill and analyzed by the researcher. The type of data collected included identification of the methods used to value commercial banks, their frequency of use, views on the best method and the strengths and weaknesses of each method.

3.4 Data Analysis

Data collected through the questionnaires and interviews were tabulated and presented in both tabular and graphical forms after proof reading by the respondents. Descriptive statistics was used to determine the commonly used methods and the reasons for their use. Comparative analysis was done to verify the most used method by the different categories of practitioners like accountants, investment bankers and stock brokers and their reasons for choice of the methodology. Scores were derived from ratings scale of the questions in the interview and questionnaires for data analysis. Further analysis were undertaken using factor analysis and rotational component matrix of the factors not eliminated.

CHAPTER FOUR

DATA ANALYSIS, RESULTS AND DISCUSSION

4.0 Introduction

A sample of 121 commercial bank valuation professionals in various firms were selected for this study. Table 4.1 below summarizes the different categories of the selected practitioners. A total of 68 practitioners in various firms responded to the survey questionnaires. Out of these 50 firms were usable as they responded that they either offer business valuation or advisory services as part of their day to day operations. Some questionnaires were edited to ensure consistency and elimination of obvious errors. The responses were considered adequate for further analysis since the respondents were independent of each other. Categorization of the respondents was used for comparative analysis which will help in attaining the objective of which method is preferred by the different valuation practitioners. Similar surveys done by Chege (2006), Mbithi (2003) and Bwoma (2003), also relied on similar response rates.

Table 4.1: Analysis of Respondents

Category	Population	Sample selected	Usable Respondents	% of usable respondents
Accountants	889	89	37	42%
Investment Bankers	17	10	6	60%
Stock brokers	17	10	5	50%
Investment advisers	21	12	2	17%
Total	**944**	**121**	**50**	**46%**

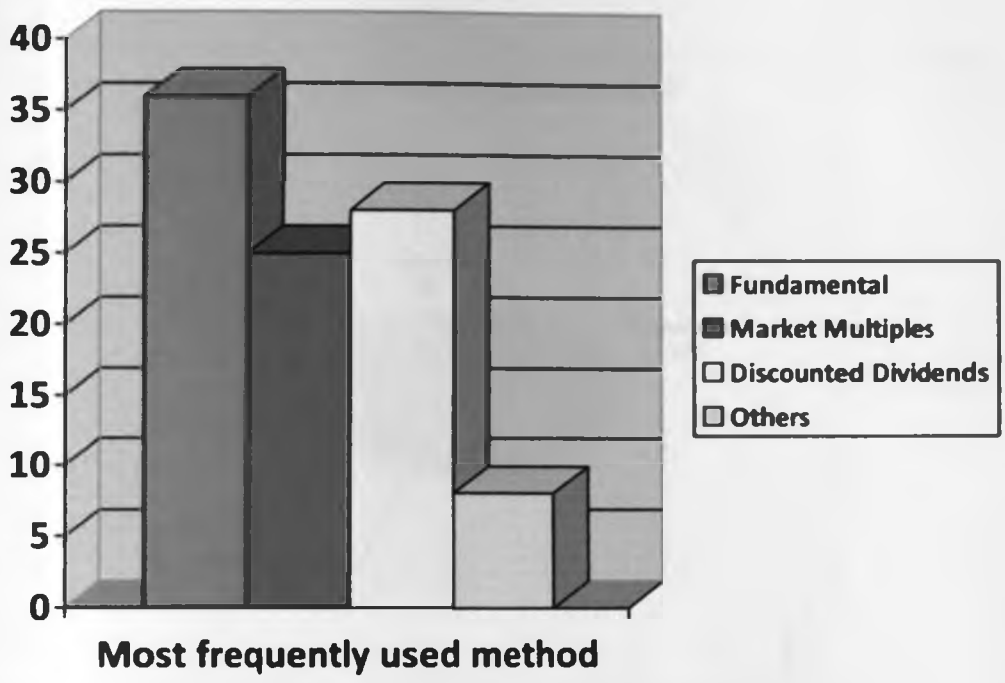
The remainder of this chapter focused on presenting the findings, analyzing and interpreting the findings. The first objective of this study, that is, to find out the methods used by commercial bank valuation practitioners is addressed in Section 4.2. The second objective of establishing the different reasons why commercial bank valuation practitioners choose the different methods is addressed in section 4.3. Comparative analysis between the different valuation practitioners' has also been presented alongside the overall analysis. Comparative analysis was done by calculating the arithmetic means of scores of the responses. The arithmetic means were used as opposed to totals because of different numbers of respondents where the accountants who responded (37) were more than the investment bankers (6); investment advisors (2) and stockbrokers (5) as shown above. Only (2) Investment advisers responded and this translated to 17% response rate which is considered inadequate for further analysis.

4.1 Frequently Used Valuation Method

4.1.1 Overall Frequency of use of Valuation Methods

Respondents were requested to indicate the frequency of use of the different valuation methods in the last 5 years. The study found that the fundamental method of commercial bank valuation is the most commonly used methods by the Kenyan business valuation practitioners especially for banks with profits earnings in excess of one billion per annum and have over 1000 employees. 33% of the respondents used the fundamental method most frequently, followed by market multiples and discounted future dividends at 25% and 32% respectively. Below is a graph depicting the respondents' frequency of use of each method:

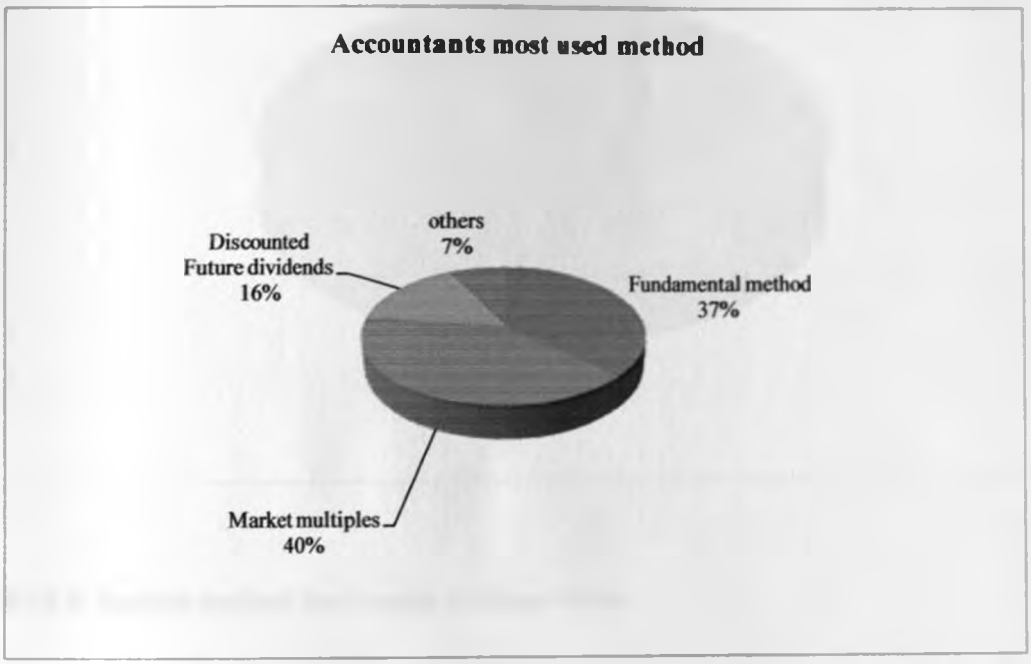
Figure 4.1 Overall frequencies of methods used by respondents

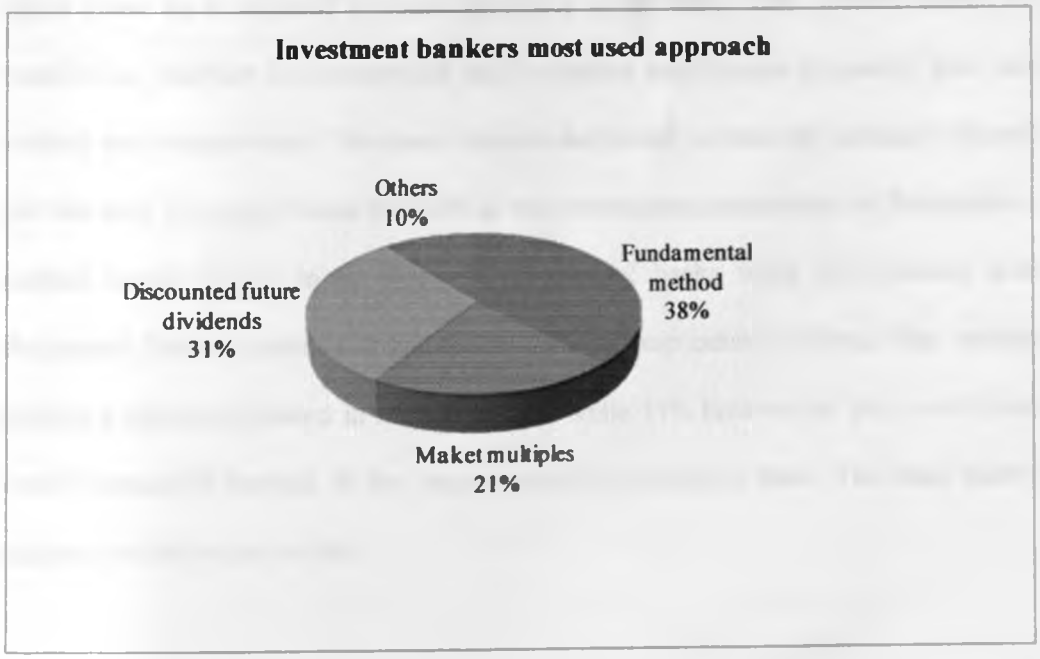


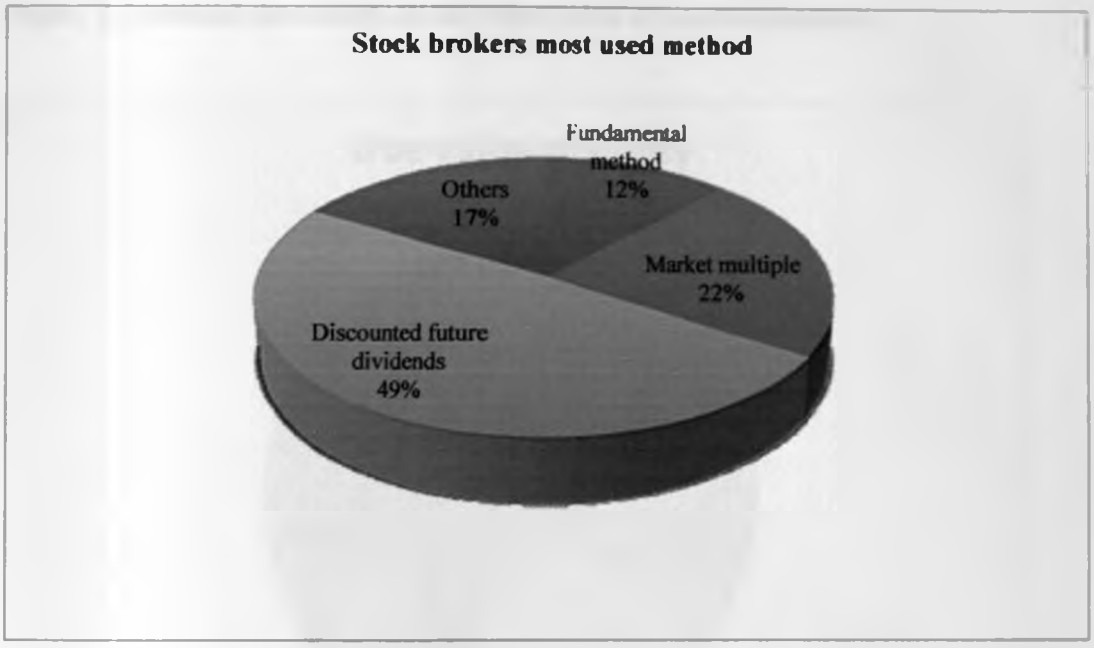
4.1.2 Frequently used valuation method: Accountants vs. investment bankers vs. Stockbrokers

When the use of the different methods was compared between the different practitioners, it was observed that a higher percentage of investment bankers 38% frequently use the Fundamental method more than the accountants 31% and stock brokers 12%. The Multiples approach is used more by accountants 48% than by the investment bankers 21% and stockbrokers 22%. The Stock brokers use the discounted future dividend approach 49% more than accountants 14% and investment bankers 31%. Besides the three common variations of commercial bank valuation methods, stock brokers lead by 17%, investment bankers 10% and accountants 7% in using other methods.

Figure 4.2: Comparison of Accountants, Stock brokers and investment bankers in valuation method use.



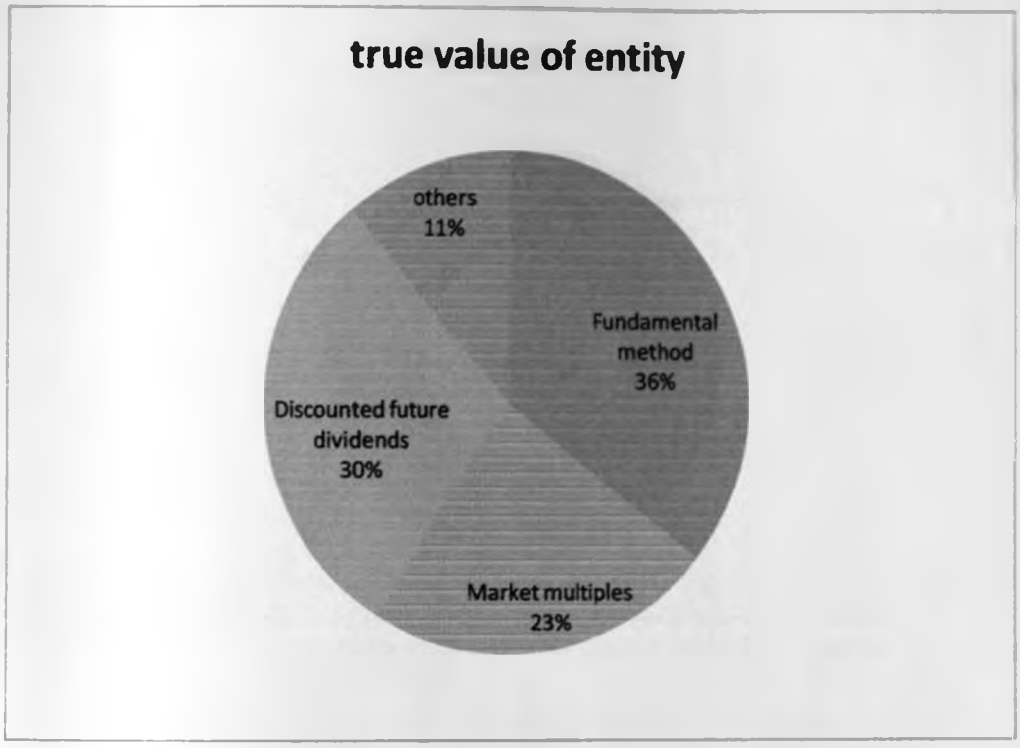




4.1.3 Valuation method that results to truest value

Respondents were asked to indicate which of the methods they believe results in the truest value on a scale of 1 (least true) to 6 (most true). This question aimed at establishing whether the commercial bank valuation practitioners frequently used the method they trusted most. The truest value is that which reflects the intrinsic value of the business. The study found that 36% of the respondents believe that the fundamental method results in the truest value of commercial banks while 30% believe that discounted future dividends is the truest. 23% of respondents believed that market multiples approach resulted in the truest value while 11% believe that they could trust other methods in arriving in the truest value of commercial bank. The chart below summarizes the overall results:

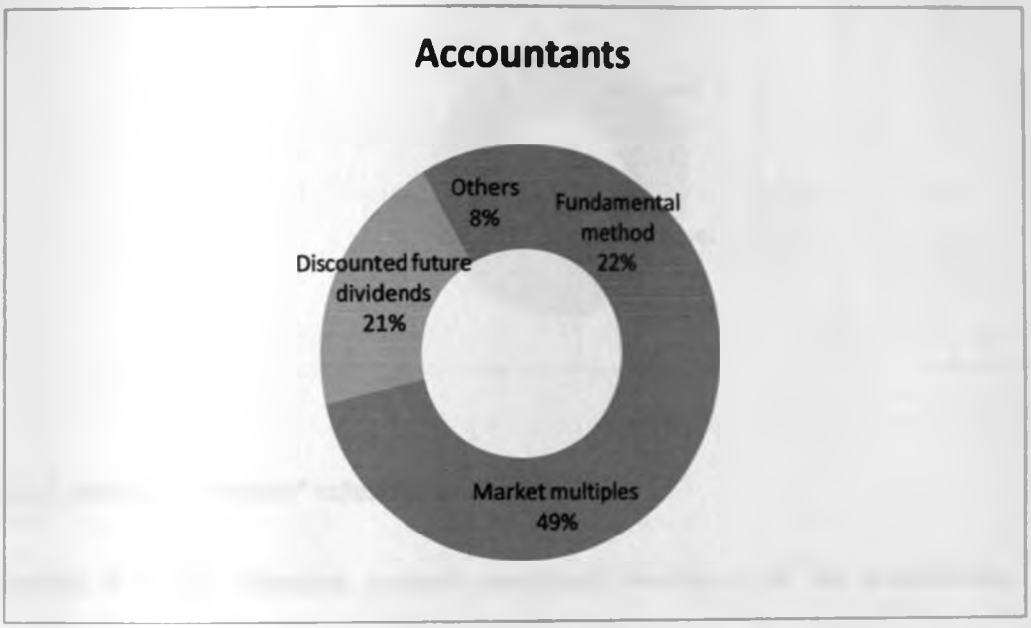
Figure 4.3 Method that results in the truest value of commercial bank

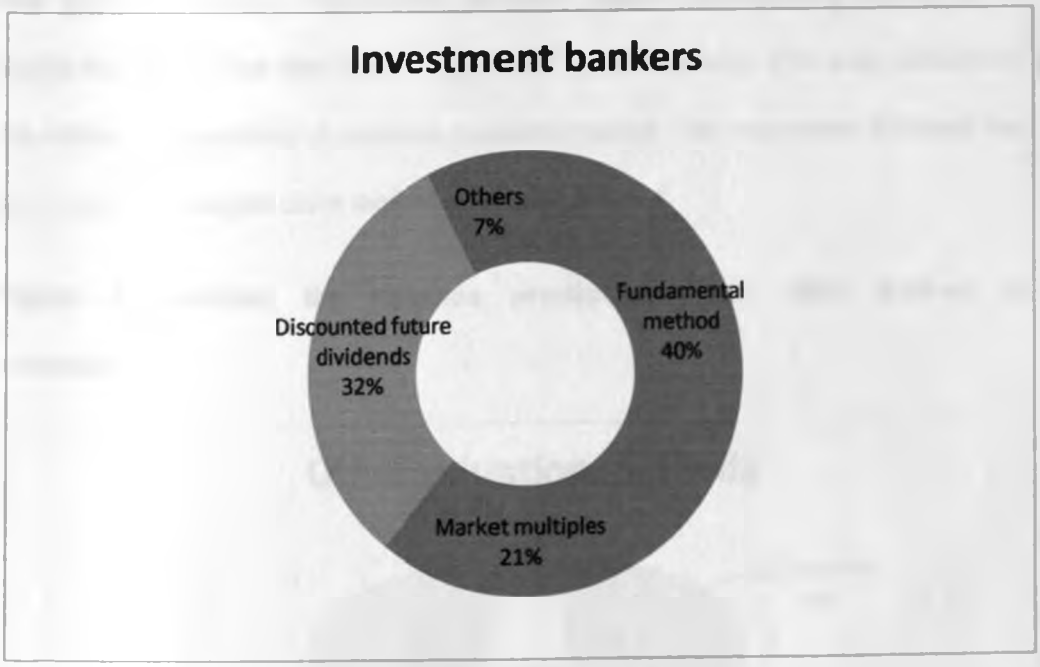


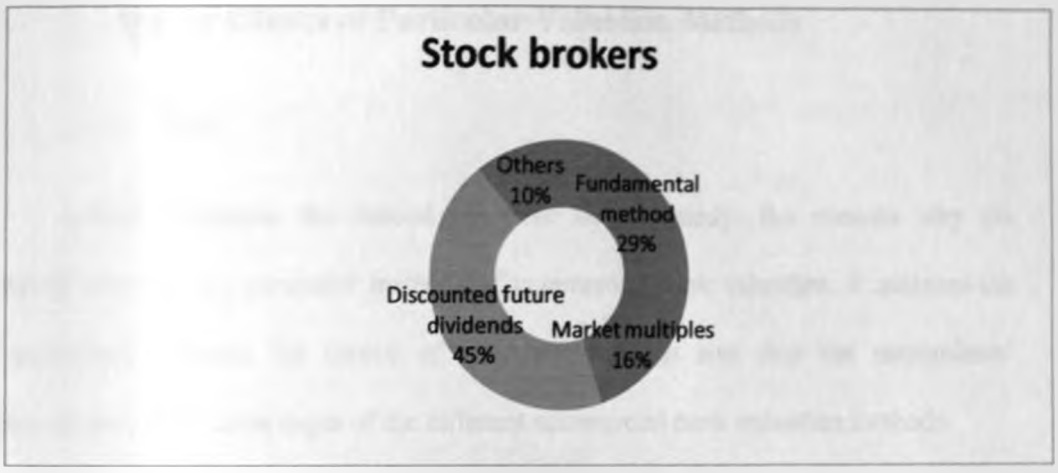
4.1.4 Truest value method:

Comparison of the investment bankers, stock brokers and accountants on their belief of the method that results in the truest value found that accountants trusted market multiples approach 49% more than investment bankers 21% and stockbrokers 16%. Investment bankers trusted the fundamental method more 40% than accountants 22% and stockbrokers 29%. Stockbrokers believed that that discounted future dividends results in the truest value 45% more than accountants 21% and investment bankers 32%. The study also noted that the valuation practitioners have more diversity of methods of valuation since all the categories indicated that they trusted "other" methods with stockbrokers leading at 10%, investment bankers 7% and accountants 8%.

Figure 4.4 depicting truest value according to the different practitioners.



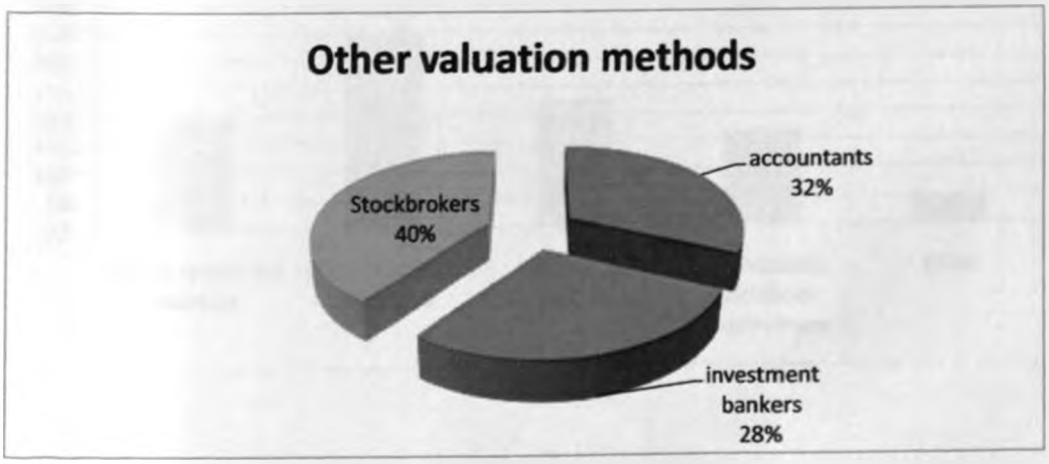




4.1.5 Analysis of "other" valuation methods

Besides the three valuation methods specifically mentioned in the questionnaire, respondents were given the option of identifying and specifying any additional methods that they use. Several respondents identified market capitalization method as an additional method that they use in commercial bank valuations. This is an indicator of the extent of subjectivity in business valuation practice. One respondent indicated that they use the contingent claim method of valuing options.

Figure 4.5 showing the valuation practitioners using other methods of valuation



4.2 Reasons for Choice of Particular Valuation Methods

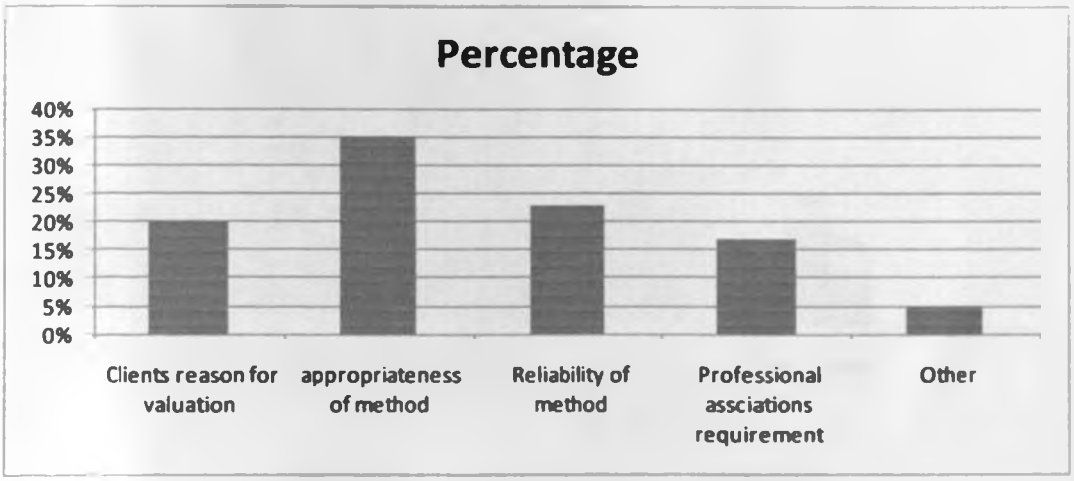
4.2.1 Introduction

This section addresses the second objective of this study: the reasons why the practitioners choose particular methods of commercial bank valuation. It analyzes the respondents' reasons for choice of valuation methods and also the respondents' perceptions of the advantages of the different commercial bank valuation methods.

4.2.2 Overall: Factors that determine valuation methods used by practitioners

The respondents were requested to indicate what determines their selection of a particular method. The main determinant according to 35% of the respondents for choice of a particular valuation method is the appropriateness of the method for the purpose of valuation and 23% suggested that the main determinant is the reliability of the method. The graph below shows the overall importance of each factor in selection of a business valuation method.

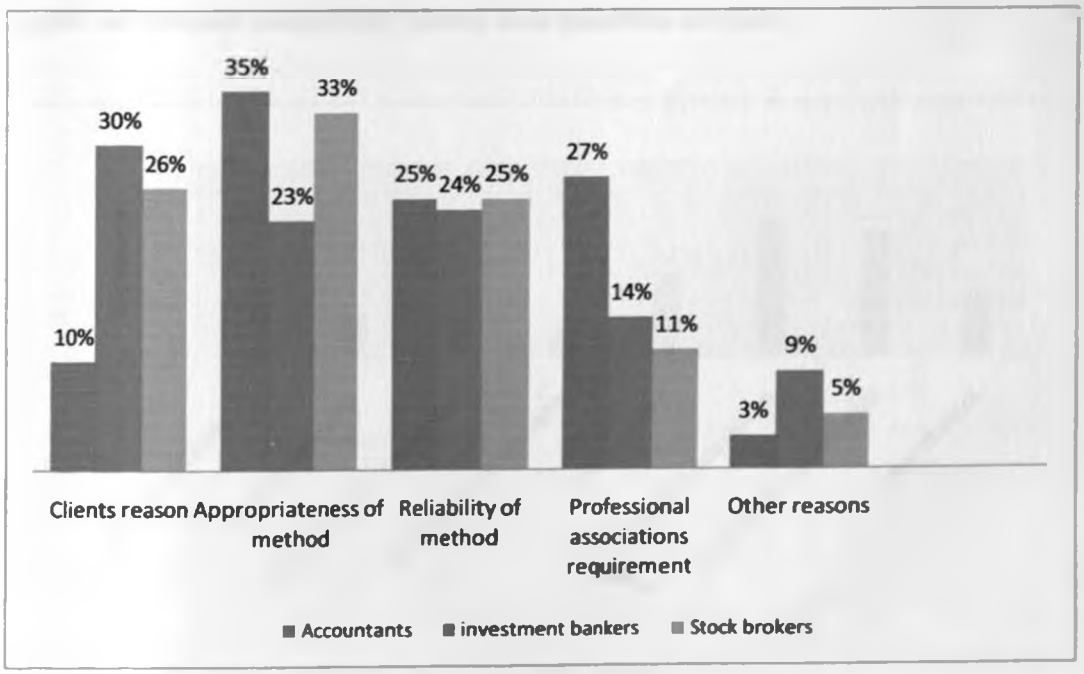
Figure 4.6 factors to consider in selection of a particular valuation method



4.2.3 Factors in selection of a particular valuation method:

Comparison between accountants and investment bankers of the factors that determine the practitioner's choice of a valuation method indicate that accountants are less 10% influenced by the clients' reason for valuation compared to investment bankers 30% and stock brokers 26%. Further, accountants score better in terms of considering the objective factors of appropriateness of the method and requirements of their professional associations. Investment bankers lead with the highest percentage of 'other reasons' in the selection of the commercial bank valuation followed by stock brokers 5% and accountants 3%. The graph below summarizes the scores of factors considered by valuation practitioners in selection of particular methods. Accountants and investment bankers tie at 25% in reliability of method as the reason of choice of method followed closely by stock brokers 24%.

Figure 4.7 Factors in selection of a particular valuation method

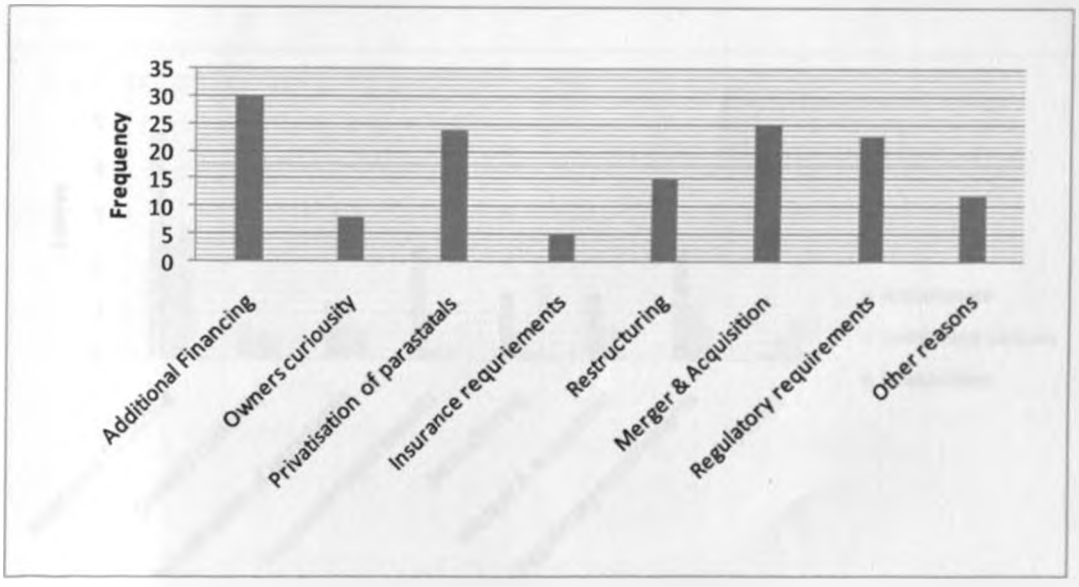


4.2.4 Reasons why clients seek valuation services

The reasons for which business is being valued should not affect the value assigned to that business as discussed in the literature review. However, as the finding of the preceding section indicates valuation practitioners are influenced 30% of the times by the clients' reasons for valuation in selection of the valuation method. This factor is unique in that it indicates the extent of subjectivity in the valuation process, unlike the other factors that seek to promote objectivity in the valuation process.

Further, analysis of the reasons why commercial bank valuation services are sought from Kenyan practitioners found that the main reasons are for purposes of merger and acquisitions. Other important reasons are for seeking additional financing from local institutions or correspondent banks and restructuring of the business. The graph below summarizes the scores rating by valuation practitioners of their clients' reasons for seeking valuation services.

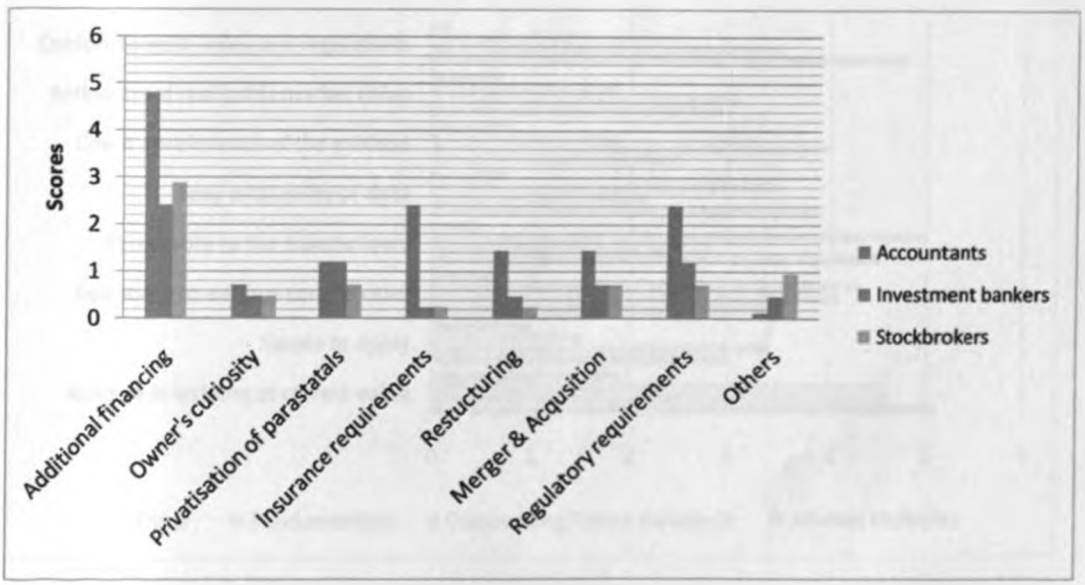
Figure 4.8 Overall reasons why clients seek valuation services



4.2.5 Reasons why clients seek valuation services: comparison of investment bankers and accountants

Comparison of the reasons why clients seek valuation services from the three groups of respondents found that the business of privatization of parastatals provided equal business to investment bankers and accountants. Businesses seeking valuation services for restructuring gave the accountants more business than investment bankers. Accountants were also given or awarded more businesses than any other groups when the clients sought additional financing; insurance requirements, restructuring among other reasons. Accountants also got more clients than investment bankers and stockbrokers who sought advice on regulatory adherence and conformance to regulators rules and regulations. Stock brokers led the pack when their clients sought their valuation services due to 'other reasons'. Below is a graph that summarizes the reasons why practitioners' clients seek valuation services from investment bankers, stock brokers and accountants.

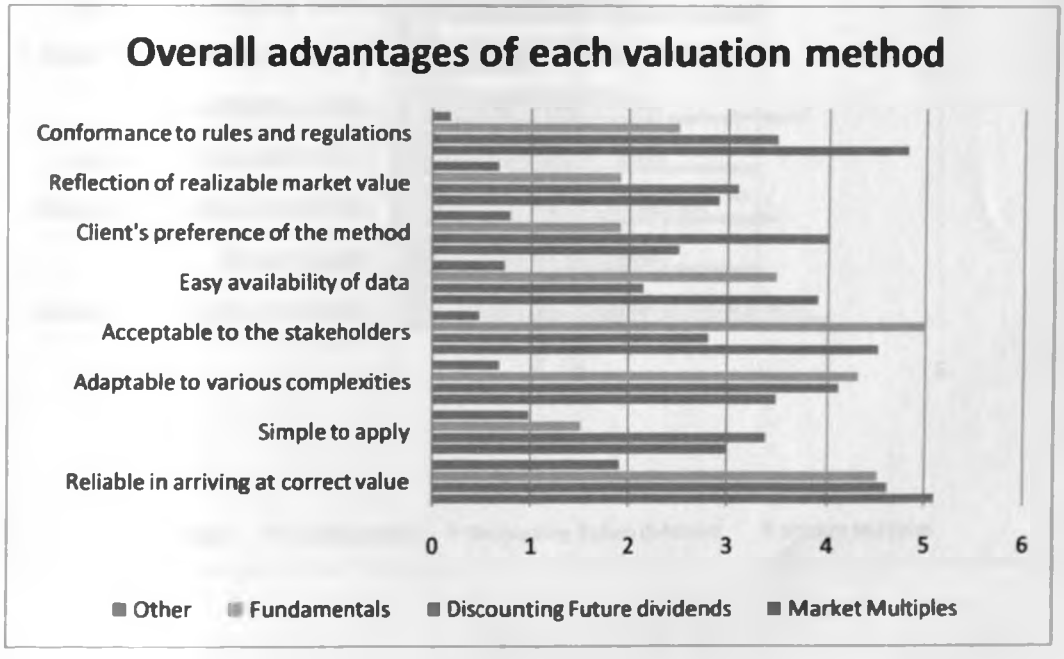
Figure 4.9 Scores reflecting different practitioners reasons for valuation



4.2.6 Relative advantage of each valuation method.

Respondents were requested to rate an array of possible advantages of the three categories of commercial bank valuation approaches. The aim was to analyze the practitioners' views of advantages of the commercial bank valuation methods and therefore attempt to identify the practical problems in use of these valuation methods. The multiples approach scored well in terms of simplicity and ease of obtaining the relevant data. The fundamental method and discounted future dividend approach scored well on ease of use of available data available in the financial industry. The discounted future dividend method was best in adaptability of the method to different types of businesses or segments within the banks, reliability of the results, and conformance to professional requirements. Below is a graphical presentation of the practitioners' rating of the advantages of these methods used by commercial bank valuation practitioners.

Figure 4.10 Scores reflecting the overall advantages of the various valuation methods



Comparison of accountants, investment bankers' and stock brokers' perception of advantages of the methods.

The below graphs 4.11, 4.12 and 4.13 show how accountants, investment bankers and stock brokers rated the valuation methods on the basis of the various advantages enumerated for them in the questionnaire as well as what they thought were the advantages of the various valuation approaches.

Figure 4.11 Scores reflecting accountants rating on the advantages of the valuation methods

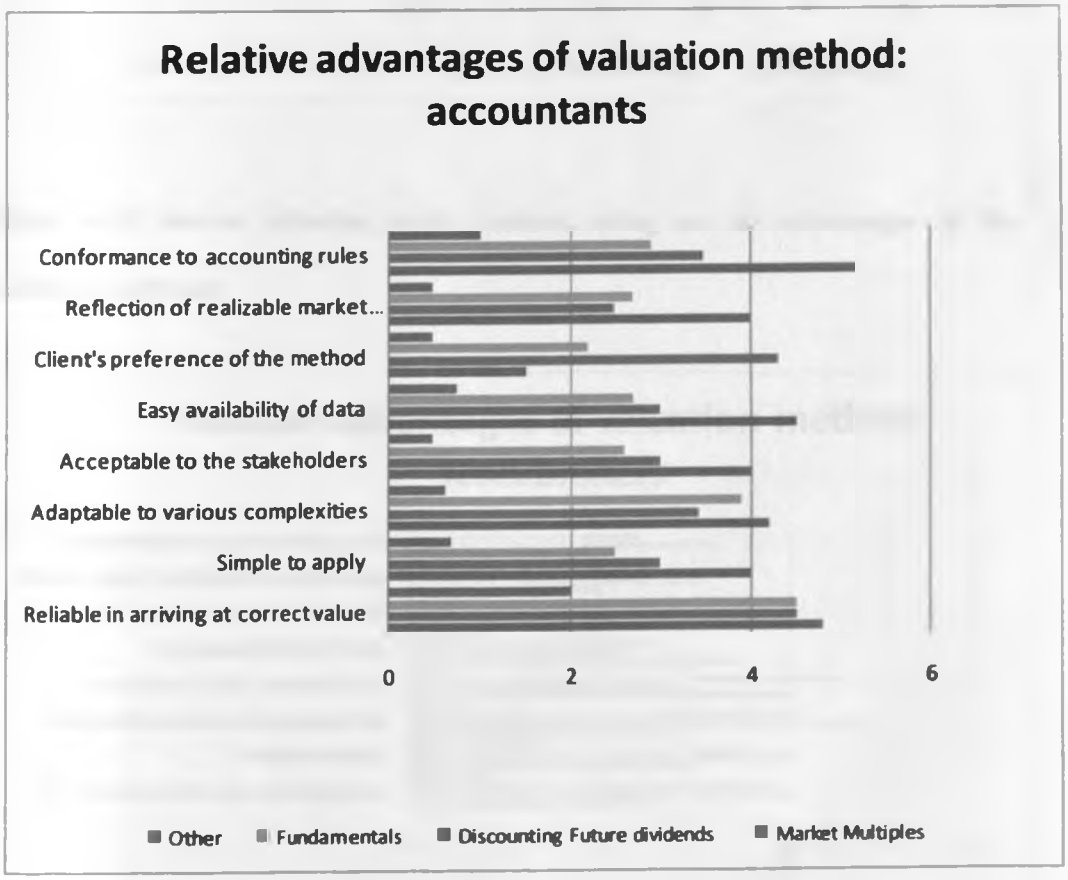


Figure 4.12 Scores reflecting investment bankers rating on the advantages of the valuation methods

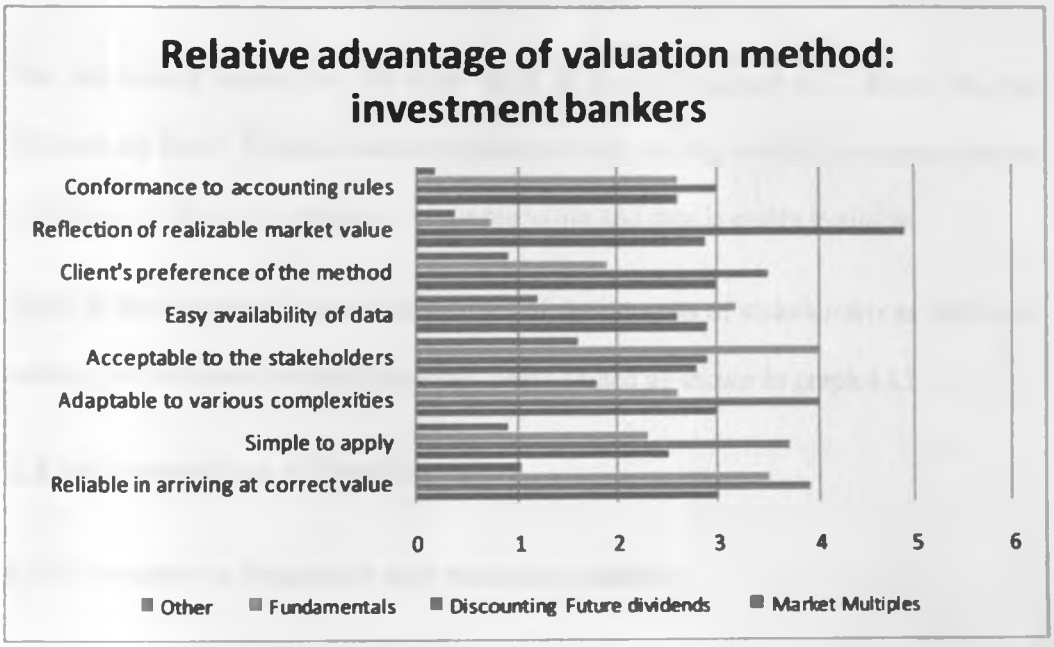
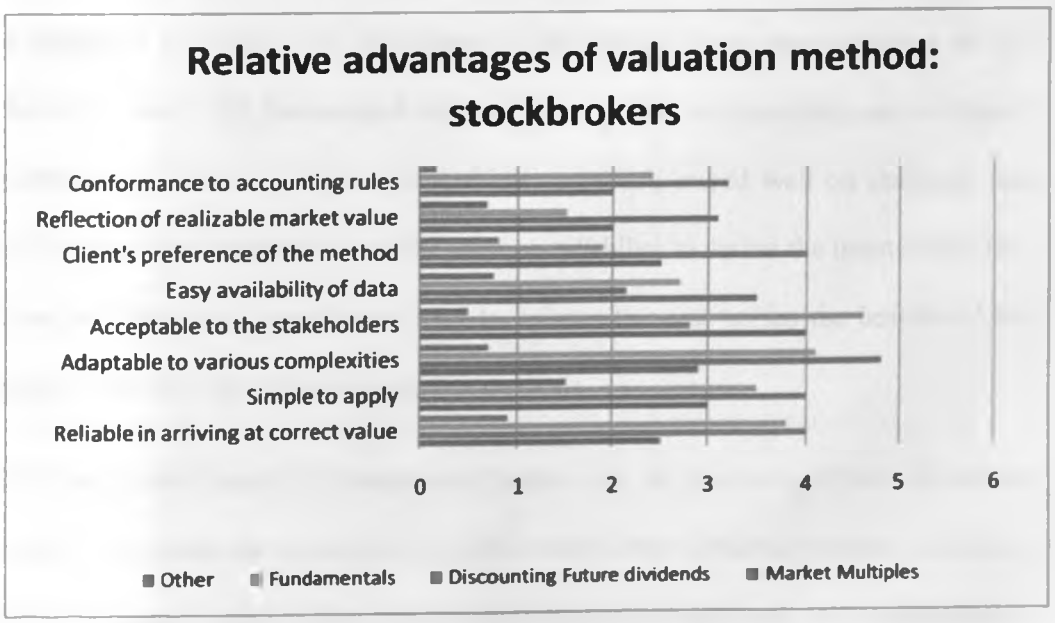


Figure 4.13 Scores reflecting stock brokers rating on the advantages of the valuation methods



The above graph indicates that accountants believe that the market multiples method is advantageous in arriving at a value which is realizable in the market. They also rated the multiple methods well on simplicity and ease of use.

The investment bankers on the other hand, as shown in graph 4.12, below, rate the discounting future dividend method highest in terms of adaptability to various complex situations. Further, they believe it is simple to use and data is easily available.

Stock brokers mainly focus on advantages of the interests of stakeholders as well as in arriving at the correct value of the entity being valued as shown in graph 4.13.

4.3 Interpretation of Results

4.3.1 Comment on frequently used valuation methods

According to this study, the fundamental method is the most frequently used method and also the most trusted in deriving the true value of a commercial bank. However, there is a difference between use of the trusted method and the actual use of the method since although 36% of the respondents trust the method results show that only 27% use it frequently. Analysis of the advantages of the methods gives some indication of why this is the case. The fundamental method scores poorly on simplicity and on clients' preference of method. The market multiples approach scored well on simplicity and ease of use even though it scored the least on reliability to derive the truest value. This is an indication that practitioners tend to balance the cost versus the benefits of the methods in use of the different valuation methods.

This study also found that investment bankers use the discounted future dividends method more than market multiple and discounted future dividend methods. However, the accountants'' prefer market multiple method at 48% though only 23% believe that it

results in the truest value compared to the other two methods. There is more use of the discounted future method by stock brokers than accountants and investment bankers at 49% though only 30% trust in the method to arrive at the true value. There are indicators that these valuation practitioners may be influenced by other methods as they all indicated that they have other alternative methods.

4.3.2 Comment on reasons for choice of valuation methods

The reliability of the method of valuation and the appropriateness for the particular method are the most important factors considered by practitioners. They are objective factors that would increase the reliability of the value arrived at. Further, the requirements of the professional associations, another important factor can be assumed to be geared towards removal of bias and therefore a fair value of the commercial enterprise. The reasons why clients need their businesses valued is the odd factor that has been noted to influence choice of valuation method. This should not be considered in the choice of a valuation method because it introduces bias in valuation of a business and therefore may not yield an objective value. A further analysis of the reasons why clients value their business may reveal the motive for "changes" in the value of businesses; for example clients who approach valuation practitioner for purpose of mergers and acquisition may exert pressure for the value to be exaggerated. This may not result in a fair value of the commercial entity.

4.3.3 Additional comments by respondents

In this section we considered the comments provided by the respondents when they were asked to provide "any additional comments on business valuation" as the last question in the questionnaire.

Only 35 out of a total of 51 respondents provided the additional comments. Out of the thirty five, nine commented on subjectivity of the business valuations. Comments included that business valuation is more of an 'art' than a 'science' and different practitioners may not arrive at the same value. The values arrived at may depend on the negotiations between the client and practitioner and it is done on a 'case by case' basis. This implies that valuation methods do not really matter much and that assumptions embedded in valuation methods creates some elements of subjectivity that require reasonable skill and care.

4.4 Factor Analysis

In the Factor analysis I sought to identify a set of dimensions that is not readily observed in a large set of variables. The analysis summarizes a majority of the information in the data set in terms of relatively few new categories, known as factors.

Table 4.2: Reasons for valuation

Factors	Reasons for valuation
F1	To establish the price and or terms of sale of whole or part of the business
F2	To establish the price and or terms of purchase of whole or part of the business
F3	To help in obtaining additional financing
F4	To satisfy the owner's curiosity
F5	To facilitate privatization of parastatals / public corporation
F6	To facilitate restructuring of the firm

The above variables are some of the anticipated reasons why valuation is done by commercial banks. The respondents were to indicate by ticking in the appropriate boxes the degree to which they agree with each variable as applicable to the reasons they use valuation.

4.4.1 Correlation Matrix Reasons for valuation

From the correlation Table 3 below, it can be seen that most of the figures were correlated with sale price and or terms of sale. These include satisfying the owner's curiosity is reliable at 0.344, price and or terms of purchase of whole or part of the business at 0.493 and facilitating privatization of parastatals / public corporation was highly correlated with the price and or terms of sale of whole or part of the business at 0.620. Also to facilitate restructuring of the firm was correlated at 0.694

Table 4.3: Correlation Matrix - Reasons for valuation

Factors	F1	F2	F3	F4	F5	F6
F1	1.000	.493	.402	.344	.620	.694
F2	.493	1.000	.404	.353	.311	.341
F3	.402	.404	1.000	.287	.251	.281
F4	.344	.353	.287	1.000	.222	.244
F5	.620	.311	.251	.222	1.000	.444
F6	.694	.341	.281	.244	.444	1.000

4.4.2 Rotated Component Matrix - Reasons for valuation

Table 4.4: Rotated component Matrix Reasons for valuation

	Component			
	1	2	3	4
To establish the price and or terms of sale of whole or part of the business	.268	.827	.125	.295
To establish the price and or terms of purchase of whole or part of the business	.830	.217	.209	.301
To help in obtaining additional financing	.181	.148	.396	.514
To satisfy the owner's curiosity	.139	.197	.031	.575
To facilitate privatization of parastatals / public corporation	.060	.714	.033	.232
To facilitate restructuring of the firm	.093	.791	.150	.153

Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization. A Rotation converged in 6 iterations.

Component 1 loads highly with the following factors; establish the price and or terms of purchase of whole or part of the business, To help in obtaining additional financing, To facilitate privatization of parastatals / public corporation, To facilitate restructuring of the firm

Component 2 loads highly with the following factors; to facilitate privatization of parastatals / public corporation and to facilitate restructuring of the firm

Component 3 loads highly with the factors; establish the price and or terms of purchase of whole or part of the business, help in obtaining additional financing, satisfy the owner's curiosity, To satisfy the owner's curiosity, facilitate privatization of parastatals or public corporation. Component 3 can therefore be said to relate to establish the price and or terms of purchase of whole or part of the business.

Component 4 loads highly on the following; to establish the price and or terms of purchase of whole or part of the business. Component can therefore be said to relate to satisfy the owner's curiosity.

4.4.3 Component Transformation Matrix- Reasons for valuation

The factor transformation matrix describes the specific rotation applied to the factor solution.

Table 4.5: Component Transformation Matrix- Reasons for valuation

Component	1	2	3	4
1	.629	.570	.391	.355
2	-.020	-.668	.563	.487
3	-.686	.418	-.044	.594
4	.364	-.235	-.727	.533

Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization.

If the off-diagonal elements are close to zero, the rotation was relatively small. If the off-diagonal elements are large (greater than ±0.5), a larger rotation was applied, which is the case in the above table.

4.4.4 Method used by commercial banks

Table 4.6: Communalities of method used by commercial banks

Reason for valuation by commercial banks or financial institutions	Initial	Extraction
Fundamental' Valuation Method	1.000	.870
Discounting Future Dividends	1.000	.837
Market Multiple	1.000	.795

Extraction Method: Principal Component Analysis.

The table above shows the critical factors that are used by commercial banks and the most critical one was fundamental valuation with an extract of .870 it was followed by discounting future dividends at an extraction of .837 and the final used method was market to book value multiple at .795.

Method preferred by commercial banks

Table 4.7 Communalities of method preferred by commercial banks

Reason for valuation by commercial banks or financial institutions	Initial	Extraction
Market Multiple approach	1.000	.845
Discounting Future Dividends	1.000	.828
Fundamental' Valuation Method	1.000	.675

Extraction Method: Principal Component Analysis.

The table above shows the critical method that are preferred by commercial banks and the most critical one that was preferred was multiple approach with an extract of .845, it was followed by discounting future dividends at an extraction of .828 and the final used method was market at .675

Factors for choice of valuation method

Table 4.8: Communalities of method used by commercial banks

Reason for valuation by commercial banks or financial institutions	Initial	Extraction
appropriateness of the method / approach for the purpose of valuation	1.000	.560
The reliability of the method	1.000	.837
The client's reason for valuation	1.000	.795

Extraction Method: Principal Component Analysis.

The table above shows the critical factors that are used by commercial banks and the most critical one was reliability of the method with an extract of .870 it was followed by appropriateness of the method at an extraction of .837 and the final used reason was clients reason for valuation at .795

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.0 Conclusion

This study was an assessment of the methods that commercial bank valuation practitioners apply in arriving at the fair value of banks. Such valuations do not majorly use market forces of demand and supply that are expected in an organized market where the prices may be determined competitively with the assumptions of information asymmetry.

This survey has identified the fundamental method as the most widely used method. Also, a higher percentage of practitioners believe that it results in the 'truest value' of the commercial banks. There are variances between the different valuation practitioners on preferences of particular methods; their trust of the methods and reasons for choice of these methods by comparative analysis. Inconsistencies or variances were also noted as some valuation practitioners used another method to value commercial banks from the ones they believed resulted in the 'truest value'.

Further analysis reveal that there is some level of subjectivity such as clients' reason for valuation in the choice of particular methods. The reasons have further been analyzed and may be used as a basis to influence an objective way in arriving at the fair value of commercial banks. Professional standards, guidelines, rules and regulation should be in place to ensure that the process of valuation is objective and different practitioners using different methods practically arrive at a fair and objective value.

Also, commercial banks need to be valued and rated by recognized international agencies such as Standard and Poors which will improve their image as well as

prospects of getting additional business and finance from correspondent banks and partners.

5.1 limitations of the study

This study has several limitations. Survey method was the most ideal for this study though the respondents were striving to be consistent with their answers instead of providing answers on the true position. Bryman (1989). Other limitations included:

i) Poor response rate of the questionnaires by the targeted respondents due to the limited number of professionals in this field. A better response rate would have reduced any error of margin.

ii) Only firms based in Nairobi were selected for the study though the researcher believes that the location is irrelevant in choice of method to be used.

iii) Only organized professionals licensed under the Accountants Act and the Capital Markets Act were studied though there may exist other 'practitioners' who may have the necessary skills but not regulated in performing commercial bank valuation. Such practitioners if they exist in Kenya were not included in the study.

iv) Existence of limited knowledge or literature about commercial banks valuation practice in Kenya limited the scope in this environment.

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http://www.centralbank.go.ke

APPENDIX A

Commercial Bank Valuation Survey Questionnaire

This is a research questionnaire to obtain data for a survey of the commercial bank valuation methods used by practitioners. You are requested to fill in the questionnaire keenly and accurately. The responses to this questionnaire will be used for academic purposes and will be treated in strict confidence.

- What is the name of your firm? .....
- Do you value commercial banks as part of your day to day business service?
  Yes ☐ No ☐
- What are the most common reasons why you are hired to value a commercial banks or financial institutions?

	Reasons for valuation	Please tick to indicate the frequency on a scale of 1 to 6 (1 Not frequent.....6 Very frequent)					
		1	2	3	4	5	6
1	To establish the price and or terms of sale of whole or part of the business						
2	To establish the price and or terms of purchase of whole or part of the business						
3	To help in obtaining additional financing						
4	To satisfy the owner's curiosity						
5	To facilitate privatization of parastatals / public corporation						
6	To facilitate restructuring of the firm						
7	Others: Please specify						

- How large are the banks that you value in terms of profits?
  ☐ Less than 500million ☐ 500 – 999million ☐ over 1billion

☐ How large are the banks that you value in terms of number of employees?

☐ 1 – 1000 ☐ 1001 – 2000 ☐ 2001 – 3000 ☐ 3001 – 4000 ☐ Over 4001

☐ Which approach or method do you use to value the commercial bank?

Method of Commercial bank valuation		Please tick to indicate the frequency on a scale of 1 to 6 (1 Least frequent.....6 Most frequent)					
		1	2	3	4	5	6
1	Price Earnings (P/E) Multiple						
2	Market to Book Value Multiple						
3	Discounting Future Dividends						
4	Present Value of Future Economic Profits						
5	Fundamental' Valuation Method						

☐ If your company uses the Fundamental Method or Discounted Cash Flow analysis:

☐ What cash flow do you use? Free cash flows ☐ Retained cash flow ☐

☐ Do you estimate growth? Yes ☐ No ☐

☐ Do you calculate a terminal value? Yes ☐ No ☐

☐ Do you make any adjustments to the required rate of return? ☐ Yes ☐ No

☐ If your company uses an asset based valuation:

☐ Do you value the bank's tangible assets? Yes ☐ No ☐

- Do you value the bank's intangible assets? Yes ☐ No ☐
- If your company uses a multiple based valuation?
- What type of multiples do you use? ☐ P/E ☐ MBV
- If you value a minority interest do you make an adjustment for revaluations and capital adequacy regulations? Yes ☐ No ☐
- Do you use any other method? Yes ☐ No ☐
- If Yes please State.....
- Which method do you prefer and does it portray the truest value?

Method of valuation		Please tick to indicate the frequency on a scale of 1 to 6 (1 Least preferable....6 Most preferable)					
		1	2	3	4	5	6
1	Price Earnings (P/E) Multiple						
2	Market to Book Value Multiple						
3	Discounting Future Dividends						
4	Present Value of Future Economic Profits						
5	Fundamental' Valuation Method						

- What influences your choice of the approach you employ in commercial banks valuation?

Reason for choice of valuation method		Please tick to indicate the frequency on a scale of 1 to 6 (1 Very Strong.....6 Weak)					
		1	2	3	4	5	6
1	The client's reason for valuation						
2	My judgment on the appropriateness of the method / approach for the purpose of valuation						
3	The reliability of the method						
4	Regulators or professional associations requirements						
5	Others (Please specify)						

- What are the advantages of the valuation method you chose above? Please tick on a scale of 1 to 6

Market Multiples

Advantages		Please tick to indicate the frequency on a scale of 1 to 6 (1 Very Strong.....6 Weak)					
		1	2	3	4	5	6
1	Reliable in arriving at correct value						
2	Simple to apply						
3	Adaptable to various complexities of firms						
4	Acceptable to the stakeholders						
5	Data to apply in method easily available						

6	Clients preference of method						
7	Reflection of realizable market value						
8	It conforms to accounting rules on measurement of value						
9	Others: Please specify						

Discounting Future Dividends

Advantages		Please tick to indicate the frequency on a scale of 1 to 6 (1Very Strong.....6 Weak)					
		1	2	3	4	5	6
1	Reliable in arriving at correct value						
2	Simple to apply						
3	Adaptable to various complexities of firms						
4	Acceptable to the stakeholders						
5	Data to apply in method easily available						
6	Clients preference of method						
7	Reflection of realizable market value						
8	It conforms to accounting rules on measurement of value						
9	Others: Please specify						

Fundamentals Approach

Advantages		Please tick to indicate the frequency on a scale of 1 to 6 (1 Strong.....6 Weak)					
		1	2	3	4	5	6
1	Reliable in arriving at correct value						
2	Simple to apply						
3	Adaptable to various complexities of firms						
4	Acceptable to the stakeholders						
5	Data to apply in method easily available						
6	Clients preference of method						
7	Reflection of realizable market value						
8	It conforms to accounting rules on measurement of value						
9	Others: Please specify						

Others (specify)

Advantages		Please tick to indicate the frequency on a scale of 1 to 6 (1 Strong.....6 Weak)					
		1	2	3	4	5	6
1	Reliable in arriving at correct value						
2	Simple to apply						
3	Adaptable to various complexities of firms						
4	Acceptable to the stakeholders						

5	Data to apply in method easily available						
6	Clients preference of method						
7	Reflection of realizable market value						
8	It conforms to accounting rules on measurement of value						
9	Others: Please specify						

Any other remarks on commercial bank valuations / valuation methodology .....

.....

.....

.....

.....

Thank you for your response

<Date>

<Name of firm>

<Address>

Dear Sir / Madam

RE: REQUEST TO FILL RESEARCH QUESTIONNAIRE

I am a student of MBA (Finance) at the University of Nairobi and undertaking my final research project. The research is on commercial bank valuation methodology in Kenya.

I am requesting you to fill in the attached questionnaire to assist me obtain the necessary data for the project. Please be assured that the information you provide will be treated as confidential. The results will be analyzed and presented in form of a thesis and will not identify individual respondents or firms that don't want their identity revealed because of strategic decisions. I have attached the university's authority to conduct the research.

I am looking forward to your response and thank you in advance.

Yours,

John Dibogo Ojalla.

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DATE August 2011

TO WHOM IT MAY CONCERN

The bearer of this letter JOHN DIBOGO OJALLA

Registration No. D61/70821/2007

is a bona fide continuing student in the Master of Business Administration (MBA) degree program in this University.

He/she is required to submit as part of his/her coursework assessment a research project report on a management problem. We would like the students to do their projects on real problems affecting firms in Kenya. We would, therefore, appreciate your assistance to enable him/her collect data in your organization.

The results of the report will be used solely for academic purposes and a copy of the same will be availed to the interviewed organizations on request.

Thank you.

JUSTINE MAGUTU
ASSISTANT REGISTRAR
MBA OFFICE, AMBANK HOUSE

UNIVERSITY OF NAIROBI
SCHOOL OF BUSINESS
MBA OFFICE
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