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Value Creation and Appropriation of Firms: Concepts, Theories and Methodology

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Abstract

The issue of corporate performance had been vigorously addressed in the literature using traditional accounting metrics. However, contemporary studies now focus on corporate sustainability in terms of value creation and how constituents of a firm are compensated for their efforts at generating the value. The current research challenge is therefore on how to appropriately define and measure firm value, bearing in mind several stakeholders that have diverse and often conflicting interests in a firm. This paper fills this gap by using stakeholder perspective to explain the concept of value creation and by providing theoretical framework and methodology for measuring the value created and appropriated by a firm. It is established that value creation can be measured using (1) the difference between output value and inputs value, (2) the sum of the economic rewards given to stakeholders and 3) the true cash flows generated by a firm. The paper concludes that since the traditional accounting metrics have some limitations and since investors do not value accounting earnings but cash that is truly generated from a firm' operations, a quantity that denotes value to diverse stakeholders of a firm should be used to measure firm value.

Keywords: economic value, value distribution, value retention, cash flow, stakeholder

Introduction

This paper is theoretical and aims to serve as a background to future empirical researches in the field of sustainability accounting. It is a contribution to the increased research focus on corporate performance, which reflects an increased pressure on firms to remain viable especially in today's competitive and global operating environment. It is also a response to the need for managers to report appropriately on their decisions, actions and inactions that have resulted in depletion or maximization of the resources entrusted in their care, firm value, the value distributed to the constituents of the firm and the value retained for growth. This paper therefore provides the opportunity to measure firm performance using stakeholder perspective.

The classical theory expects managers to deliver on traditional performance measures such as increased shareholders' wealth, earnings growth and returns on assets employed by a firm. However, successful modern businesses have come to realize the need to view a firm from a broader perspective considering it (a firm) as a vehicle for value creation. They consider a firm as an entity that creates value for all stakeholders, irrespective of whether the stakeholders have financial claims against the firm or not. To them, shareholders' wealth, earnings growth and returns on assets should not be the primary targets because they are rewards for aiming at the real target, which is creating maximum value to a firm and its constituents.

The contention is that if a firm focuses on creating value for shareholders only, the goal may not be achieved unless the right employees are selected, developed and rewarded, unless credit lenders receive consistently attractive rewards, unless government is compensated for its role at ensuring peaceful and conducive business environment and unless the society is rewarded for accommodating the business. This therefore means that stakeholder perspective should be used to study a firm behaviour and value should be created not only for one group of stakeholders since the interests of the stakeholders are inextricably linked (O'Malley, 1998).

Value creation means different things to different people. To customers, it means products or services that are consistently useful. To employees, it entails being treated with respect, being involved in decision making, excellent reward opportunities and continuous training and development. To investors (shareholders and credit lenders), it means delivering consistently high returns on their capital, which generally requires strong revenue growth and attractive profit margins. From the whole of this arises that the real contour of value continues to pose problem of order definitional and semantics (Touati, 2013). Hence, value creation should be conceptualized using stakeholder viewpoint.

After the classical theory of firm, there had been remarkable growth in theories development in the field of economics, finance and management. Agency theory, resources-based view of firm, stakeholder theory and

several others have been posited by scholars. Despite this, only few companies have really changed their perspectives about how they measure firm performance, considering the impacts of other stakeholders on the long-run success of firms in modern times (Schaltegger and Wagner, 2006).

In addition, a myriad of studies had conceptually addressed value creation and how the value was captured by a firm's stakeholders (Lieberman and Chacar, 1997; Bowman and Ambrosini, 2000; Coff, 2005 and Lieberman and Balasubramanian, 2007). Tailored towards Harberger (1999) productivity model, Lieberman and Chacar (1997) provided a methodology that presented three categories of stakeholders: labour, shareholders and government while Lieberman and Balasubramanian (2007) also provided a payment identity that equated a firm's total revenue to the sum of payments to labour, credit lenders and suppliers.

However, accounting literature made us aware that there are more stakeholder groups of a firm than these. The value created by a firm is captured by customers, suppliers, shareholders, management executives, employees, the community where a firm is located, government and credits lenders. Also, part of the value created is retained by firms for growth and reinvestment purposes. Most of these studies were therefore narrow in scope and the current research challenge is therefore on how to appropriately define and measure firm value, bearing in mind several stakeholders that have diverse and often conflicting interests in the firm.

This paper fills this gap by discussing the concept, theories and methodology for measuring the value created and appropriated by a firm. This is with a view to serving as a background study for empirical researches in the field of sustainability accounting. Stakeholder perspective is used to conceptualize value since value creation means different thing to different people. In addition, five theories were reviewed and static and dynamic methods of estimating the magnitude of the value created and those captured by different stakeholders were presented using equations. The simple methodology provided in this study covers six major stakeholders (on whom public data can be collected from corporate financial reports) and provides equations that allow the estimation of the value created and appropriated by a firm.

Apart from the introductory section, this paper is divided into four sections. Section two clarifies the concept of value creation. Section three reviews the classical theory, agency theory, resources base view of firm, stakeholder theory and equity theory. Section four covers methodological issues in the areas of data, variables and measurement while section five concludes the paper.

2. Concepts Defined

Many scholars have conceptually addressed the issue of how firms create value (Booth, 1998). However, there is much debate and, arguably, some confusion about the concept of value (Lieberman and Balasubramanian, 2007). This is because scholars have often taken an overtly narrow view, equating value with returns to shareholders (Kramer and Pushner, 1997; Booth, 1998 and Bowman and Ambrosini, 2000). This means that the value created by a company belongs only to shareholders; thereby neglecting the returns potentially captured by employees, suppliers and other stakeholders. The scope of analysis adopted by the scholars was therefore not comprehensive nor complete.

This limitation was noted by Strebel and Lu (2008) when they averred that most managers believe that the best way to increase firm value is to maximize short-term earnings in a predictable way, on behalf of the shareholders. However, when the short-term earnings are threatened, managers will cut back their spending and distribute, as much as possible, to shareholders (even when no value is created); indicating little value to other stakeholder groups whose support is also key to performance and growth (ibid, 2008). This is what is referred to as value transfer, which can result into value destruction in the long run.

The standard focus of the conventional accounting system and reporting is basically on profit maximization, which can be directly obtained from financial statements. Other performance measures used to equate value include market value (MKV), net total assets (NTA), price-earnings ratio (P/E), earnings yield (EY), earnings per share (EPS) and dividend per share (DPS). These measures make use of accounting profits and omit important components of value creation. In fact, market value is deficient because it is dependent on a number of factors that are not in direct control of a company (Salawu, 2009); using it may therefore not reflect the underlying requirements for using the data and misspecification of models may be potentially high. Besides, most of the metrics make it difficult to distinguish between when a firm is creating value and when it is transferring or destroying value (Booth, 1998).

According to Booth (1998), the focus on shareholders' value stems partly from the difficulties inherent in obtaining data on the other stakeholders and partly from the assumption of the classical theory that a firm

operates in a perfect market and that other stakeholders, apart from ordinary shareholders, are merely factors of production that are subjected to market forces and hence cannot capture any value created by the firm. However, there is need to expand this narrow scope of analysis to other stakeholders, using stakeholder value approach, because information about the value distributed to all stakeholders are very important for measuring the value created by a company, which of course are readily available.

It must be noted that the traditional financial performance measures, which utilize financial accounting metrics, do not account for the financial requirements necessary to achieve the performance, in terms of the various sources of finance invested and their costs (Stern, 2002). Those that take account of the capital invested, like return on investment (ROl) and return on assets (ROTA), are often subjected to accounting manipulations and markets fluctuations. In fact, financial performance measures can rise in value without a company necessarily creating any wealth (Biddle and Lindahl, 1982). Hence, firms' performance should be measured by a quantity that denotes creating wealth not only for shareholders but for all stakeholders.

Moreover, the necessity for changing an economy from a situation where every corporate manager is only interested in maximizing shareholders' value to the one where every stakeholder contributes towards sustainable performance of firms had been advocated in the literature. The dynamic and fast changing world also requires that firms should develop new approaches to how they achieve short-term objectives without compromising the abilities of future generations to achieve their own objectives. There is therefore the need to measure corporate performance from stakeholders' viewpoints to achieve sustainability.

Since there is no clear cut definition of value in the academic literature, what constitutes value depends on the objective aimed at by researchers. In fact, theoretical works on corporate performance has brought about many proposals to integrate and overcome the traditional methods. Measures such as balanced scorecard (Kaplan and Norton, 2004), environmental and social reports (Bennett and James, 1999) and sustainability reports, defined according to triple bottom line (TBL) agenda (Elkington, 1997) were developed to address the challenge of information requirements for decision making processes.

Also, economic value added (EVA), customers value added (CVA) and free cash flow (FCF) have been used in measuring the value created by an enterprise (Rappaport, 1986; Booth, 1998; Lambert and Burdurgurolu, 2000; Akalu, 2002; Lieberman and Balasubramanian, 2007 and Asogwa, 2009). Stewart (1991), Elubar (1998) and Stern and John (2001) also wrote on the development and importance of EVA over accounting metrics. In addition, Booth (1998) propagated the work of Hunt (1975) on FCF and Akalu (2002) and Lieberman and Balasubramanian (2007) also argued in its favour.

The focus on stakeholder view to corporate performance, using tools such as EVA, rather than shareholder value approach, stems from the size of a firm that calls for the need to separate ownership and control; and the social concern of compensating every stakeholder that participate in the activities that lead to value creation (Booth, 1998). Another factor is the assumption of perfectly competitive market, which is not valid for large firms due to their activities that are critical to the functioning of less diversified economies (Lieberman and Balasubramanian, 2007). Defining firm value using stakeholder perspective will therefore enable us to detect when a firm engages in value destruction or transfer rather than value creation.

For the purpose of this study, value creation is taken to mean the amount of wealth generated by producing or delivering goods or services at a cost that is lower than what consumers actually pay. This means that value is created (or destroyed) when the revenue generated from a firm's operations is greater (or lesser) than the cost of purchased inputs or components used to generate outputs (Booth, 1998). On the other hand, value appropriation is the amount of value distributed to stakeholders and the value retained by a firm. This means that value creation can also be measured by summing up factors payments such as total labour compensation, depreciation and amortization, rental payments, net income after taxes and all tax payments (Lieberman and Chacar, 1997) and the value retained. The value referred to is therefore the value created for all stakeholders of a firm and not necessarily shareholders value.

3. Theoretical Issues

This paper considers five theories of firm: the Classical theory, Agency theory, Resource base view theory, Stakeholder theory and Equity theory. The classical view of a firm is that it should be operated so as to maximize profits. This made Hayek (1960) to posit that the only specific purpose; which a firm ought to serve; is to secure the highest long-term returns on capital. Supporting this position, Freidman (1970) stated that there is one and only one social responsibility of a business and this is to use its resources and engage in activities designed to increase its profits as long as it stays within the rules and game.

Samuels and Wilkes (1986) further asserted that, as an economic unit, a firm has both short and long-term objectives to achieve. They averred that, in the short run, a firm should think in terms of making money for its owners and it should make efforts to keep the company liquid so that its future can be guaranteed. To achieve this objective, the authors posited that the firm will ensure that profitable financial transactions are carried out; profitable in the sense that revenue to be generated from activities cover and are in excess of cost of operations so that owners can be compensated for investing in the company. However, in the long-run, the owners should be encouraged to continue their investments by getting rewards that are at least as great as can be obtained elsewhere.

The classical theory further provides models that presume that rational decision making firms attempt to maximize some positive quantity or minimize something that has negative connotations. Its proponents posited that a firm maximizes profits in order to maximize shareholders' wealth, subject to a number of constraints and that a firm should make sufficient money (or maximize profits) to be able to offer the owners attractive rewards for their contributions towards achieving the firm's objectives. What is therefore important to note in the development of this theory is the position that managers behave as if they are maximizing profits, irrespective of what they are actually attempting to achieve.

The need to separate ownership and control of large firm diminished the validity of the profit maximization objective of a firm, as posited by the classical theory. In large enterprises, ownership is widely spread and agency theory is developed to explore the relationship between managers (agents of the owners i.e. the ordinary shareholders) and owners (the principal). It is expected that managers will act and make decisions on behalf of the owners (Pike and Neali, 1999). However, managers' interests may be at variance with that of the shareholders hence, agency problem arises. For example, shareholders may want profits while managers may wish to relax or pursue other goals such as improvement of working conditions, staff welfare and firm growth. This problem can be resolved through compensation and incentives to managers.

Jensen and Meckling (1976) developed a comprehensive theory of firm under agency arrangements. They defined agency costs and averred that the principals can assure themselves that agents will make optimal decisions on their behalf if appropriate incentives and monitoring arrangements are made. Based on this assertion, many studies explored the advantageous position of the management executives in capturing a major part of the economic rent created by a firm and the effect of this on firm performance (Court and Loch, 1999; Hanlon, Rajgopal and Shevlin, 2003 and Kanagaretnam, Lobo and Mohammad, 2008).

Apart from the dispersion of ownership and control experienced by large firms, the progressive scale and rising tide of social concerns about their operations also call to question the profit motive and patterns of decision making of managers (Pike and Neali, 1999). Social concerns such as environmental pollution, caused by concentration of businesses in an area and the problem of how to equitably distribute economic value to stakeholders indicate that managerial attitudes of firms should change. Short-term profit maximization goal should not be the only behavioural premise of a firm; rather, it should be the maximization of any other quantities such as meeting the needs and interests of all stakeholders. Therefore, this implies that managers should regard themselves as trustees and exercise their powers for the benefits of all stakeholders; adjudicating their conflicting claims because the interest of the shareholders is one out of the varieties of competing interests that a manager must mediate.

The theory of resource-based view (RBV) has a long antecedent with links to the works of Penrose (1959), Prahalad and Hamel (1990), Barney (1991) and Peteraf (1993). The theory views a firm as a collection of unique resources and capabilities that provide the basis for the strategies that are the primary sources of earnings. A firm with a relatively small amount of resources but with high ambition can leverage their resources to achieve greater output for its smaller inputs (Hamel and Prahalad, 1993) and with increased effectiveness, the resources that will be available to the firm can be larger.

The theory is in contrast to the traditional strategy models such as the input-output (I/O Model) and the Michael Porter's Five Forces models, which focused on a firm's external competitive environment. Porter (1980) argued that it is the industry structure within which a firm competes and how the firm positions itself against that structure that determines how profitable the firm will be. However, the theory of resource-based view emphasizes the internal capabilities of a firm in formulating strategies to achieve sustainable competitive advantage in its market and industry. The theory is therefore grounded in the perspective that a firm's internal environment, in terms of resources and capabilities, is more critical to the determination of strategic actions to undertake and hence performance.

This is not to say that external environment is not important but there is need for a fit between the external market contexts in which a firm operates and its internal capabilities. Instead of focusing on the accumulation of the resources necessary to implement strategies dictated by conditions and constraints in the external environment, the theory expects that a firm's unique resources and capabilities will provide the basis for a strategy and the strategy will allow the firm to best exploit its core competencies relative to opportunities in the external environment.

The theory further points to the unique cluster of resources and the capabilities that each firm possesses in order to utilize the resources (Stalk, Evans and Shulman, 1992 and Collis and Montgomery, 1995). It expects a firm to manage dynamically its resources and its capabilities in the pursuit of above-average returns, indicating that differences in firms, over time, are driven primarily by their unique resources and capabilities. This is necessary because resources, by themselves, confer no value to a firm; it is only when they are put into some productive use that value will be created. Firms that face similar industry conditions are expected (other things being equal) to exhibit some degree of similarity with respect to value creation. However, a great divergence in performance can still be observed between the firms due to differences in internal structures, in terms of how resources are combined and their capabilities to utilize the resources in the most competitive ways.

Barney (1991) argues that all the resources that a firm has access to may not be strategically relevant because some may actually prevent the firm from conceiving and implementing valuable strategies. Some resources may even lead a firm to implement strategies that can reduce its effectiveness and efficiency. This therefore means that though the existence of resources is very important, their efficient combination to provide a firm with competencies, that is, the strategic capability to mix resources in such a way that allows it compete more successfully in the markets, also matters.

Stakeholder theory begins with the assumption that values are necessarily and explicitly a part of doing business and rejects the separation thesis that assumes that ethics and economics can be neatly and sharply separated (Freeman, 1994). The theory provides a broader view that does justice to business ethics i.e. the moral performance of a business and trade rather than shareholder, single objective view of a business that distinguishes between economic and ethical consequences and value. If the entire set of stakeholder' relationships become strategic for the long-term success of a business, then, the measurement of corporate success cannot be limited to the creation of value for only one stakeholders group (Clarkson, 1995).

According to Freeman (1994), the focus of stakeholder' theory is articulated in two core questions: what is the purpose of a firm? And, what responsibility do managers of firms have to stakeholders? The first question encourages managers to articulate shared sense of the value they create and what brings its core stakeholders together. It also propels firms forward and allows them to generate outstanding performances (Freeman, Wicks and Parmar, 2004). The second question, however, pushes managers to articulate how they want to do business and specifically the kind of relationships they want to create with their stakeholders.

The stakeholder theory further demands that managers should develop and run their firms in a way that is consistent with the demands of the theory i.e. stakeholders value rather than shareholder's value maximization. In fact, Samuels and Wilkes (1986) posited that a firm has responsibility towards its stakeholders and each of these interest groups sees the role of the company in a slightly different ways. A firm value is therefore influenced by the quality of the relationship it maintains with a range of internal and external stakeholders and its ability to communicate its activities and performances effectively with key stakeholders can be critical to its long-term success, viability and growth (KPMG, 2008).

The long-run value of a firm cannot be maximized if the varied interests of its stakeholders are ignored. This was noted by Jensen (2000) when he propounded the 'enlightened stakeholder theory', which posited that the objective function of a firm should be to maximize its total long-run market value and a change in the market value is the scorecard by which the success of a firm is measured. The author further posited that none of the stakeholders is superior or ranks above others and that the value created by a firm gives managers a way to assess the trade-offs that must be made among the competing stakeholders' interests.

Equity theory gives support to stakeholder theory by positing that stakeholders do not only evaluate the size of the value created that is distributed to them but also consider the value appropriated to other stakeholders (Huppertz, Arenson and Evans, 1978). This made stakeholders to assume the presence of relative justice in the exchange process such that the absence of relative justice can produce negative sentiments and behavioural responses (e.g. dissatisfaction and withdrawal of contributions towards value creation). However, relative justice is a subjective concept that varies from one firm to the other hence, the need to examine and measure how

modern businesses appropriate economic value in order to respond to stakeholders' needs and interests in an effective and equitable manner.

This concern was generated out of the context in which corporate organizations operate and the network of relationship that connects a firm to a greater number of interrelated individuals and constituencies, called 'stakeholders' (Donaldson and Preston, 1995 and Post, Preston and Sachs, 2002). It was also as a result of the relationship that influences the way a business is governed and its short and long-term survival. Therefore, it can be specifically argued that the satisfaction of the interests of stakeholders of a firm (in form of the economic value created that is distributed to them) does affect its value creation potentials.

4. Measuring Firm Value and its Appropriation

The need for an appropriate research design for scientific study underscores the need to consider various options in the measurement of variables and the different types of data that can be used. From a methodological standpoint, the emphasis of this paper is on equation models that allow the estimation of economic value created, the value distributed to stakeholder groups and the value retained by a firm using value added and cash flow accounting methods.

The classical theory of firm, the productivity model developed by Harberger (1999) and the work of Lieberman and Balasubramanian (2007) that recognized factors of production such as labour (L), capital (K) and materials (M) and the stakeholders that provide them: labour, shareholders and suppliers, respectively are used to model the value created and appropriated by a firm. The productivity model develops a payment identity that a firm's total revenue must be equal to the sum of payments to stakeholders at any point in time, that is

$$pY = wL + rK + mM \tag{1}$$

where, p = price of the firm's product, Y = total output of the firm, w wage rate, L = number of employees, r = rate of interest, K = capital employed by the firm, m = price of bought-in materials or components, and M = quantity of bought-in materials or components.

However, employees of a firm can be categorized into two: Owner-manager or management executives and labour. Also, a firm's capital employed can be sourced from debts and issue of shares. Based on the resource base view of firm and stakeholder theory that recognize multiple stakeholders (since a firm participates in three markets i.e. capital market, product market and factor market), equation (1) is expanded as follows:

$$pY = eE + wL + rK + mM + dD + tG + cS + bR \tag{2}$$

where, p, Y, w, L, r, K, m and M are as defined in equation (1), e = average compensation paid to management executives, E= Number of management executives, d = dividend per unit of ordinary share of the firm, D = number of ordinary shares issued and paid for by shareholders that rank for dividend during a year, t = tax rate, G = tax bases of government at all levels, c = average amount spent per project by a firm on corporate social responsibility (CSR), S = number of CSR projects embarked upon by a firm, b = retention or reinvestment rate, and R = after-tax earnings of the firm. This equation denotes that a firm's revenue must be equal to the sum of the payments made to all stakeholders and the amount retained for reinvestment.

Since value added is the difference between what customers paid for firms' products and the costs of bought-in components i.e. the difference between output value (net revenues) and input value, equation (2) can be modified by subtracting mM from both sides as follow:

$$pY - mM = eE + wL + rK + dD + tG + cS + bR \tag{3}$$

The left hand-side of the equation is therefore the economic value (EVA) created by the firm (denoted as V), while the right hand-side represents the appropriation of the value among stakeholders. Hence,

$$V = pY - mM \tag{4}$$

and

$$V = eE + wL + rK + dD + tG + cS + bR \tag{5}$$

These two equations imply that value creation and value appropriation are two sides of a coin (Bowman and Ambrosini, 2000) and hence they are equal. This helps to hypothesize that value creation and value appropriation relate together and to test various theoretical postulations with regards to their applicability in corporate performance. The value created by a firm in a period is the sum of the value distributed to stakeholders and the value retained for reinvestments, expansion and growth. Obtaining values for all the parameters in equation (5) will therefore lead to the amount of value created and appropriated by a firm in static form.

In equation (5), four additional stakeholders were identified i.e. credit lenders, government, community and the firm itself. Customers and Suppliers are also part of the major stakeholders of a firm; they were however excluded in the models for some reasons: 1) Data requirements on these stakeholders seem overwhelming and not readily available on timely and firm basis. 2) Information on the demand curves for the firms' products or services and the quantities of the materials or components supplied to the companies is not always available. Alternatively, data on the amounts that customers are willing to pay and the amounts the firms are willing to pay on the materials or components supplied to them are not readily available.

If data are available on these, it would be possible to estimate the value captured by customers (in terms of the difference between the price they are willing to pay and the price they actually paid) and suppliers. 3) Most importantly, the amounts actually paid on firms' products or services (i.e. sales revenues less returns) and the value of bought-in components or materials supplied by suppliers are the two elements used to arrive at the economic value created (EVA) by a firm. 4) In addition, the left hand-side of equation (2) denotes the revenue received by the firm, which is the payment made by customers for the firm's product. It was assumed that value had been appropriated to customers in form of lower prices and quality products, which enables the firm to achieve the level of revenue for the period.

Moreover, this paper draws from the free cash flow (FCF) model developed by Hunt (1975), which recognizes that investors do not value accounting earnings but cash that is truly generated from a firm' operations. The limitations of using accounting earnings in valuation were noted in many theoretical and empirical studies (Biddle and Lindahl, 1982 and Akalu, 2002). Biddle and Lindahl (1982) found that when US firms used Last-in-First-out (a method of issuing materials to production and inventory valuation) during the inflationary periods of 1970's, the firms' shares prices increased despite lower earnings made. This simply implies that no value was created to have warranted the increase in the market value of the firms. Other studies found similar results that the market looks beyond cosmetic accounting earnings to arrive at shares prices; other factors are considered.

The argument that accounting earnings are not cash (because they cannot be spent) and that since investors normally invest cash in a firm, they are interested in getting cash back, developed by Hunt (1975), was supported by Booth (1998). According to Booth (1998), the investors simply value future cash flows and not earnings that can be manipulated through the use of different accounting methods and bases. However, the computation of cash flows looks somewhat controversial because it is capable of multiple interpretations. What is normally done, according to Booth (1998), is to add back non-cash items such as depreciation, amortization, goodwill, deferred income tax and other accounts written off to the profit statement, as disclosed in the financial statements, to earnings in order to arrive at the true cash generated from a firm's operations. Because of this, Hunt (1975) sought for how to improve the use of cash flows in valuation by identifying other factors that must be adjusted for.

The author argued further that a firm with large cash flow may have a very large capital expenditure or net working capital that thus reduce cash whereas another firm with similar cash flow may have very limited capital expenditure. Therefore, the capital expenditure needed to maintain a firm's operations should be subtracted from cash flow to get the true cash generating ability of the firm. This is what Hunt (1975) called a firm's true fund position, which is commonly referred to as FCF. Thus,

$$FCF = NI + NCI + \Delta NWC/CAPEX \quad (6)$$

where, NI = net income, NCl = non-cash items such as goodwill, amortization, depreciation, deferred income taxes, bond discount amortization, foreign exchange adjustments, earnings of non-consolidated firms, etc., NWC = additional receivables and inventory net of payables and accruals, and $CAPEX$ = additional capital expenditure incurred by the company but not diversifying investments unrelated to existing operations.

The model captures the cash actually generated from a firm's operations after adjusting for non-cash items and the need to invest in working capital and capital expenditure to support firm's operations. However, to measure the value created by a firm, there should also be adjustment of the firm's financing method i.e. how the firm finance the changes in the net working capital and capital expenditure, which may involve a combination of equity and debts. Therefore, there is need to adjust the firm's earning for financial charges. This is done by adding back the after-tax interest charges, using the firm's marginal tax rate. Thus, the resulting equation will be

$$FCF=NI + NCI + INT\,(l\text{-}t) + \Delta NWC/CAPEX \quad (7)$$

where, FCF, NI, NCI, NWC and $CAPEX$ are as defined in equation (6) and INT = after-tax interest charges, using marginal tax rate. The cash flow method takes into account the realities of the limitations of using accounting

earnings for value creation, the fact that accounting earnings are not cash and that investors normally invest cash and are interested in getting back cash.

Incremental method, that is, growth rate (percentage change in a variable from one period to the other) can also be used to measure the value created, the value distributed to stakeholders and the value retained by a firm, rather than absolute values. The use of the dynamic approach will help to improve the validity of the estimates and conclusions that will be reached. This is because the method aims at reducing, if not completely eliminating heteroskedasticity error, which might result from unscaled magnitudes on both sides of the models to be estimated (Esirim, 2000). The intuition behind the dynamic approach is a straight forward one because from one period to the other, value is created (or destroyed) when sales revenue is greater (or lesser) than the cost of purchased inputs and changes therein can be measured.

In addition, proportional values of the economic value added to sales revenue can be used to measure value creation. Also, the proportion of the value captured by each stakeholder group and the value retained, in relation to the total value created by a firm, can be used. The advantage of using this method rests on the fact that different factors, controllable and non-controllable, do account for a firm performance during a period and these vary from one firm or period to the other. Hence, using proportional values will help to capture the priority given to each stakeholder group from one period to the other.

Moreover, to measure the value created and appropriated by corporations, three different types of data can be used: time series data, cross sectional data and panel data can be used. Panel data is preferable where researchers like to control for unobservable firm heterogeneity. This type of data also has relative advantage over time series and cross-sectional data in that there is increase in degree of freedom, there is availability of large number of observations and there is reduction in autocollinearity among endogenous variables, which can lead to a more efficient estimation. Data can also be transformed using natural logarithm and units of measurement can be converted to achieve uniformity, especially where different units of measurement were used in the data to be analyzed.

5. Conclusion

The need for defining value creation from the stakeholder viewpoint had been espoused in this paper. Stakeholder perspective was used to conceptualize firm value since value creation means different thing to different people. The classical theory of firm, agency theory, resources base view theory, stakeholder theory and equity theory were also reviewed to provide theoretical foundation for empirical researches into the value created and appropriated by firms.

In addition, the methodology for estimating the magnitude of the value created was presented using the value added accounting and cash flow methods. The approach adopted in this paper also paid particular attention to the economic value distributed to a wider stakeholder groups, external and internal. The paper concluded that since the traditional accounting metrics have some limitations and since investors do not value accounting earnings but the cash truly generated from operations, a quantity that denotes value to diverse stakeholders of a firm should be used to measure value creation and appropriation. It is through this that a firm would be able to detect when it is engaging in value destruction or value transfer rather than value creation.

It is therefore believed that the conceptual and theoretical discussion in this paper will provide a background for empirical researches into the area of corporate sustainability. It is also expected that the methodology presented in this paper will provide an avenue for measuring the value created and the value captured by different stakeholders of a firm and of developing hypotheses about the relationship between and among them. In addition, they can be applied to develop a suitable framework for researching into the factors that determine the value created and appropriated by a firm.

References

Akalu, M. (2002). Measuring and Ranking Value Drivers. A Discussion Paper. The Timbergen Institute for Economic Research of the Erasmus University, Amsterdam.

Asogwa, R. (2009). Measuring the Determinants of Value Creation for Publicly Listed Banks in Nigeria: A Random
Effects Probit (REP) Model Analysis. *Paper Presented at the 4th Annual Conference on Econometric Modeling for Africa*, 8-10th July.

Barney, J. (1991). Firm Resources and Sustained Competitive Advantage. *Journal of Management* 17(1):99-120.

Benett, M. and P. James (1999). *Sustainable Measures, Evaluation and Reporting of Environmental and Social Performance* (eds.). Greenleaf: Sheffield.
Booth, L. (1998). What Drives Shareholder Value? *Paper Presented at the Federated Press' Creating Shareholder*
Value Conference. Toronto, Canada. October.
Biddle, G. and F. Lindahl (1982). Stock Prices Reaction to Last-In-First-Out (LIFO) Adoption: The Association between Excess returns and LIFO Tax Savings. *Journal of Accounting Research*, Autum:185-198.
Bowman, C. and V. Ambrosini (2000). Value Creation versus Value Capture: Towards a Coherent Definition of Value in Strategy. *British Journal of Management* 11(1):1-15.
Clarkson, M. (1995). A Stakeholder Framework for Analyzing and Evaluating Corporate Social Performance. *Academy of Management Review* 20(1): 92-117.
Coff, R. (2005). What is Competitive Advantage in a Multi-stakeholder, Inter-temporal World?. *A Working Paper*.
Collis, D. and C. Montgomery (1995). Competing on Resources: Strategy in the 1990's. *Havard Business Review*
73(4):118-128.
Court, D. and M. Loch (1999). Capturing the Value. *Advertising Age* 70(46): 46 - 48.
Donaldson, T. and L. Preston (1995). The Stakeholder Theory of the Corporation: Concepts, Evidence and Implications. *The Academy of Management Review* 20(1): 65-91.
Elkington, J. (1997). *Cannibals with Forks. The Triple Bottom Line of 21st Century Business*. Oxford: Capstone.
Elubar, A. (1998). *EVA: The Real Key to Creating Wealth*, New York, John Wiley.
Esirim, B. (2000). External Debt Overhang and Economic Performance of Nigeria: An Empirical Investigation. *Nigerian Journal of Monetary Economics* 3(1):30-37.
Freeman, R. (1994). A Stakeholder Theory of the Modern Corporation. In *Ethical Theory and Business*. T. Beauchamp and N. Bowie (eds.). Englewood Cliffs, NJ: Prentice- Hall. Boston, Pitman.
Freeman, R., C. Wicks and B. Parmar (2004). Stakeholder Theory and the Corporate Objective Revisited. *Organization Science*, 15(3):364-369.
Freidman, M. (1970). The Social Responsibility of Business is to Increase Profits. *New York Times Magazine*,September 30:32-33, 122, 124 and 126.
Hamel, G. and C. Prahalad (1993). Strategy as Stretch and Leverage. *Harvard Business Review*, 71(2):75-84.
Hanlon, M., S. Rajgopal and T. Shevlin (2003). Are Executive Stock Option Associated with Future Earnings?. *Journal of Accounting and Economics* 36(1-3):3-43.
Harberger, A. (1999). Studying the Growth Process. A Primer. In *Capital Formation and Economic Growth*, Boskin M. (eds). Stanford, CA: Hoover Institution.
Hayek, F. (1960). The Corporation in a Democratic Society — In Whose Interests Ought it and Should it be Run?. In *Management and Corporations*. Asher, M. and Bach G. New York:Mcgraw-Hill.
Hunt, P. (1975). Funds Position: Keystone in Financial Planning. *Harvard Business Review*. May-June.
Huppertz, J., S. Arenson and R. Evans (1978). An application of Equity Theory to Consumer-Merchant Exchange Situations. *Journal of Marketing Research* 15(2): 250-260.
Huselid, M. (1995). The Impact of Human Resource Management Practices on Turnover, Productivity, and Corporate Financial Performance. *Academy of Management Journal* 38: 635—72.
Jensen, C. (2000). Value Maximization, Stakeholder Theory, and the Corporate Objective Function. hitp://papers.ssrn.com/papertai'?ABSI'RACl lD22067 1. Accessed on January 15th 2011.
Jensen, C. and W. Meckling (1976). Theory of Firm: Managerial Behaviour, Agency Costs and Ownership Structure. *Journal of Financial Economics* 3: 305-360.
Kaplan, R. and D. Norton (2004). *Strategy Maps: Converting Intangibles Assets into Tangible Outcomes*. Harvard Business School Press: Boston MA.
Kanagaretnam, K., G. Lobo and E. Mohammad (2008). Determinants and Consequences of Large CEO Pay. *Int. J. Accounting and Finance* 1(1): 61-82.
Kaplan, R. and D. Norton (1992). The Balanced Scorecard: Measures that Drive Performance. *Harvard Business Review* 70(1): 71-79.
KPMG (2008). *Sustainability Reporting: A Guide*. Australia. KPMG International.
Kramer, J. and G. Pushner (1997). An Empirical Analysis of Economic Value Added As A Proxy for Market Value Added. *Financial Practice and Education* 7(1). Summer.
Lambert, D. and R. Burdurgolo (2000). Measuring and Selling the Value of Firms. *International Journal of Logistics Management* 11(1): 1-17.

Lambert, R. and D. Larcker (1987). Executive Compensation Effects of Large Corporate Acquisition. *Journal of Accounting and Public Policy* 6(40): 231-243.
Lieberman, M. and A. Charcar (1997). Measuring the Distribution of Returns Among Stakeholders. Methods and Application to US and Japanese Companies. In *Strategic Discovery: Competing in New Arenas*. Thomas H., D. O'Neal and R. Alvarado (eds.). New York: John Willey & Sons.
Lieberman, M. and N. Balasubramanian (2007). Measuring Value Creation and Its Distribution Among Stakeholders of the Firm. *Paper Presented at the Academy of Management Annual Meeting, 2005 and the Atlanta Competitive Advantage Conference* in 2007.
O'Malley, P. (1998). Value Creation and Business Success. The Systems Thinker 9(2). www.pegasus.com/1evpoints/valuecreate.htrnl. Accessed on October 6th, 2012,
Penrose, E. (1959). *The Theory of Growth of the Firm*. New York. Wiley Publications.
Peteraf, M. (1993). The Cornerstones of Competitive Advantage: A Resource-based View. *Strategic Management Journal* 14: 179-191.
Pike, R. and B. Neale (1999). *Corporate Finance and Investment*. England. Pearson Education Limited.
Porter, M. (1980). *Competitive Strategy: Techniques for Analyzing Industries and Competitors*. New York. Free Press.
Post, J., L. Preston and S. Sachs (2002). Managing the Extended Enterprise: The New Stakeholder View. *California Management Review*, 45(1): 6-28.
Prahalad, C. and G. Hamel (1990). The Core Competence of the Organization. *Harvard Business Review*, 68(3): 79-
91.
Rappaport, A. (1986). *Creating Shareholder Value: The New Standard for Business Performance*. New York. The
Free Press.
Salawu, R. (2009). The Dynamic Model of Capital Structure and Business Risk of Listed Non- Financial Companies
in Nigeria (1990-2006). *An Unpublished PhD Thesis* submitted to the Department of Management and Accounting,
Obafemi Awolowo University, Ile Ife, Nigeria.
Samuels, J. and F. Wilkes (1986). *Management of Company Finance*. 4th edition. Berkshire: Van Nostrand Reinhold.
Schaltegger, S. and M. Wagner (2006). Integrative Management of Sustainability Performance, Measurement and
Reporting. *International Journal of Accounting, Auditing and Performance Evaluation*. Spring. pp. 233-247.
Stalk, G., P. Evans and L. Shulman (1992). Competing on Capabilities: The New Rules of Corporate Strategy. *Harvard Business Review* 70(2): 57-69.
Stern, E. (2002). Why EVA is the Best Measurement Tool for Creating Shareholder Value. In *Business-The Ultimate Resource*. United State of America. Bloomsbury Publishing Plc.
Stern, J. and S. John (2001). *The EVA Challenge: Implementing Value Added Change in an Organization*. New York. John Wiley.
Stewart, G. (1991). *The Quest for Value*. New York. HarperBusiness.
Strebel, P. and H. Lu (2008). Who Gets the Rewards? Promote Value Creation by Rewarding the Right Stakeholders. *Perspectives for Managers*. IMD Paper No. 161. August.
Touati, J. (2013). Terms of Value Created Distribution: Illustrations by Tunisian Background. *Global Advanced Research Journal of Management and Business Studies* 2(2): 71-79.

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