The study was focused on the significance of working capital management in enhancing profitability in the electricity distribution sector in Zimbabwe because the sector has been underperforming and facing mounting debts. Thus, positivism philosophy and a case study design were used to collect data, in addition to questionnaires and focus groups. Whilst, descriptive analysis was used to measure central tendency and variability, and this included arithmetic means, variances and standard deviations. Consequently, the study established that working capital management is significant to the electricity distribution sector in Zimbabwe because it improves profitability, enhances value creation and growth. Thus, this is expected to enable the sector to make critical infrastructural and technological investments in order to contain the surging electricity demand. In addition, it was established that profit maximisation through working capital management will enable the Zimbabwean electricity distribution industry to maximize shareholders’ wealth, as a result attracting more investors in this highly capital intensive sector thus, reducing dependence on expensive debt financing. Accordingly, the study concludes by stressing that working capital management guarantees business survival and continuity and this have a domino effect on the alleviation of power shortages in Zimbabwe as well as energizing the entire economy.

Key words: Working Capital Management, Liquidity, Profitability, Debt Financing, External Financing, Investors, Creditors, Capital Investments, Electricity Distribution Sector,

INTRODUCTION

The envelopment of state through its public enterprises in the diverse socio – economic backgrounds has resulted in inexorable debates over the years (Basu, 2008; Munyoro & Shaningwa, 2019). Thus, these discussions have been fundamentally enthused by the growing evidence that most of these parastatals are failing to carry out their strategic duties of hastening economic and social advancement (Rondinelli, 2008; Munyoro & Shaningwa, 2019). Consequently, the electricity distribution sector in broad-spectrum has not been spared from these precarious reveals and as a result drawing attention from international community (Munyoro & Shaningwa, 2019).

Consequently, this has resulted in the electricity distribution sector issue being at the top of the ‘to do list’ of virtually every government globally (Burton, 2010; Van de Graaf & Colgan, 2016; Bower, 2017; Munyoro & Shaningwa, 2019). In fact, the distribution of electricity in

*Corresponding Author: Gerald Munyoro, Graduate Business School, School of Entrepreneurship and Business Sciences, Chinhoyi University of Technology, P. Bag 7724, Chinhoyi, Mash West, Zimbabwe. E-mail: geraldmunyoro@hotmail.com
Co-Author 2Email: ydzapasi@gmail.com
the whole world has posed fears to national economic sustainability, development and growth (Department of economic and social affairs, 2008; 2013) as upsurges in power supply have also been directly linked to job creation and national economic growth (Thurik, 2003; Clarke, 2012; Munyoro & Shaningwa, 2019). For example, countries in the Middle East such as the United Arab Emirates (UAE) and Qatar have had economic growth linked to electric power consumption per capita growth (Qader, 2009). Yet, Nigeria which is providentially endowed with copious natural resources such as gas, water and mineral resources, indefensibly has been facing extreme energy paucities resulting in economic decay (Tallapragada, 2009; Munyoro & Shaningwa, 2019). Thus, the cause has been blamed on the absence of investment, ill-famed policies, poor performance, deepening poverty, low human development indicators and lack of strategic planning in the electricity distribution sector (Energy Commission of Nigeria, 2006; Routledge, 2007; Elusakin, 2013; Munyoro & Shaningwa, 2019). Regrettably, as the electricity supply is distressingly waning at a more rapidly rate, the world population is shockingly continuing to rise that is from about 6.8 billion people in 2011 to 7.4 billion by 2015 (Ross, 2015). Consequently, this is going to get worse as the challenges being faced by the electricity distribution industry are swelling as a result of poor infrastructure, climate change as well as wear and tear of distribution grids which is being further worsened by the high demand of electricity (Bouttes et al., 2011; Munyoro & Shaningwa, 2019) as this is attributed to rapid urbanization (Munyoro et al., 2016). Nevertheless, despite the significant improvement that has been realized in executing efficient electricity distribution policies in Zimbabwe in recent years, regrettably the distribution segment continues to post significant losses challenges that have prevented it from perfectly accomplishing its electricity distribution goals as is the case with Namibia (Sadelec, 2000; EMCON Consulting Group, 2002; Ljung, 2007; Kapika & Eberhard, 2013; Munyoro & Shaningwa, 2019). Accordingly, this has resulted in electricity distribution waning severely, as the sector has continued to be weighed down by heavy borrowing and other mounting debts (Worldbank, 2011; Alagh, 2013; Namnews network; Africanenergysources.com) in addition to limited access to modern infrastructure, scanty power generating capacity, sterile regulations, high technical and financial losses from vandalism, insufficient transmission of electricity due to poor distribution facilities, poorly remunerated manpower and lack of capital investment that is coupled by an impulsive decline in creditworthiness (www.indexmundi.com; africanenergyresources.com; tradingeconomics.com; Group Energy Sector Strategy, 2009; Worldbank, 2011; Munyoro & Shaningwa, 2019). Regrettably, the challenges facing the electricity sector in Zimbabwe such as current energy consumption per capita due to subdued levels of electricity distribution like in Namibia fall short of the recommended global development standards and is causing some financial stress to the electricity distribution (Alagh, 2013; www.nme.gov.na; Munyoro & Shaningwa, 2019). Consequently, this study seeks to ascertain the impact of working capital management in enhancing profitability in the electricity distribution sector in Zimbabwe focusing on Zimbabwe Electricity Transmission Distribution Company (ZETDC).

LITERATURE REVIEW

The electricity distribution concept

Electrical transmission and distribution systems have developed in recent years into something smarter, something known as smart grids (Elusakin 2013; Munyoro & Shaningwa, 2019). Thus, these smart grids are seen as an attempt to make them more cost-effective, efficient, resilient and sustainable even under dynamic conditions (Watson et al., 2001). Accordingly, since electricity cannot be stored, the smart grid innovation is a multifaceted framework designed to cater for both generating and distribution of the electricity (Munyoro & Shaningwa, 2019) as well as dynamic response of demand to price signals, transmission pricing, congestion management, technology adoption under subsidized regimes, active network management under high penetration of distributed generation, market reforms and new trading strategies (Watson & Head, 2007; Burton, 2010; Abdelhay & Malik, 2011; Elusakin, 2013; Munyoro & Shaningwa, 2019). However, the traditional equation-based and statistical modelling methods regrettably, are presenting precincts when it comes to representing the real complex world with typically dynamic interactions that are non-linear, historically dependent on multi-scale and multidimensional nature as entities do not only interact amongst themselves but also with the immediate environment. Furthermore, these entities are heterogeneous thereby evolving with time making their own intelligent decisions that maximize payoffs in the process (Abdelhay & Malik, 2011; Elusakin, 2013; Munyoro & Shaningwa, 2019) and consequently, enhancing the electricity market functions.

The electricity market function

Electricity distribution sector is an arrangement to transfer electric energy from producers to consumers (Alagh, 2013; Munyoro & Shaningwa, 2019) and this transmission of electric energy requires special infrastructure that is commonly known as a power system (Watson & Head, 2007). In fact, the electricity market consists of a few producers, who are the owners and power plants owners and who enjoy the liberty of selling electricity to local consumers, power pools or anyone (Elusakin, 2013). Furthermore, there are also retailers and traders in the same market, whose role is to buy and sell electricity from producers to consumers (Watson & Head, 2007; Elusakin, 2013; Munyoro & Shaningwa, 2019). Thus, these retailers provide price insurance to the consumers and can simultaneously increase competition in the electricity market, even though they are exposed to large
economic risks (Abdelhay & Malik, 2011; Elusakin, 2013). Additionally, at the bottom of the electricity market hierarchy, there are electricity end users and since they vary in size they have the liberty to buy from local power companies or power pools (Munyoro & Shaningwa, 2019).

The meaning of Working Capital

The Annual Survey of Industries (1961), highlights that working capital signifies the circulating capital that is required to meet the day-to-day operations of any business. Whilst, Kennedy & McMullen (1968), suggests that working capital is the circulating capital involving those assets that are easily converted from assets with relative speed from one form to another. Also expanding on this, Weston & Brigham (1994) note that working capital mainly encompasses a firm’s investment activities and decisions in short term assets such as cash, receivables and inventories. That said, Mead et al (2002) defines working capital as a firm’s current assets. Similarly, Aravindan & Ramanathan (2013) refer to working capital as the cash invested in a firm’s daily operations. Hence, Guthman (1953) defined working capital as the lifeblood of a business because it constitutes cyclical flowing streams of funds in the business. Additionally, Chatterjee (2012) & Too et al (2016) are also of the opinion that working capital is commonly used for the day-to-day capital required in a company for immediate issues such purchasing raw materials, meeting day to day expenditure on salaries, wages, advertising, rents and rates among other minor issues. In brief, when it comes to the accounting terminology, working capital is recognized as the difference between the inflow and outflow of funds (Munyoro & Shaningwa, 2019).

Types of Working Capital concepts

There are two types of working capital concepts namely quantitative and qualitative, also known as gross and net concepts (Guthman, 1953; Munyoro & Shaningwa, 2019). Thus, quantitative concept refers to circulating capital, which perceives working capital as the total current assets that are also regarded as gross working capital (Smith, 1937). Whilst, the qualitative concept gives an idea regarding source of financing capital and views working capital as the excess of current assets over current liabilities (Munyoro & Shaningwa, 2019). Whilst, Guthmann (1953) agrees that working capital is the excess of current assets over current liabilities although he specifically refers to it as net working capital. Thus, in the qualitative concept, net working capital represents the amount of current assets that would remain if all the current liabilities are paid (Guthmann, 1953; Munyoro & Shaningwa, 2019). That said, Weston & Bringham (1994) confess that working capital concepts have their unique points of importance and they argue that if the objective is to measure the size and extent to which current assets are being used then the gross concept is expedient, whilst the net concept is relatable and desirable when evaluating the liquidity position of an enterprise. Hence, Aravindan & Ramanathan (2013) suggest that by calculating working capital through establishing the difference between current assets and current liabilities, a firm is granted the possibility to acknowledge the amount of capital which is allocated to operating needs. Moreover, obtaining working capital through the difference between permanent capitals (equity and non-current liabilities) and non-current assets enables a firm to ascertain if it used the excess of permanent capitals to finance its current assets (Munyoro & Shaningwa, 2019). Thus, if the difference is negative, it signifies that a percentage of the non-current assets are being financed by the short period financing, which consequently enhances the company’s bankruptcy risk (Mota, 2013; Munyoro & Shaningwa, 2019). Hence, Martins et al (2009) recommend that companies should have the same maturity for capitals which is used to finance assets and for the assets themselves as the transformation of the assets into cash takes more time than is previously forecasted, which obliges the company to need a positive working capital at all times (Munyoro & Shaningwa, 2019). Furthermore, Kennedy & McMullen (1968) suggest that current assets have a short life span, implying that they can be easily be converted into cash within a twelve month financial period. Whilst, on the other hand, current liabilities are short term obligations that are also payable within an accounting cycle such as accounts opened with suppliers of raw materials (Munyoro & Shaningwa, 2019). According to Caballeri et al (2010), it is vital to highlight that in order to find the ‘perfect’ level of working capital for a company, several factors have to be taken into consideration and this includes the type of business, the company’s dimension, the suppliers relation, the market where the company is situated, the growth opportunities that the company could have and the operations’ seasonality. Having said that, it is essential to highlight that, a business’ working capital tends to vary as time progresses as a result of external factors such as demand and economic changes (Munyoro & Shaningwa, 2019). In short, businesses tend to have fixed working capital and fluctuating working capital and in this case, fluctuating working capital is usually short term in nature such as a short term bank loan, whilst fixed working capital is a long term bank loan (Kennedy & McMullen, 1968). Interestingly, such fluctuations exist in the electricity industry and hence the levels of working capital required in the business vary all the time and depends on the type of business (Munyoro & Shaningwa, 2019). It is also important to note that the availability and delivery of this working capital to a business in need is vital because failure to adhere to these variables may negatively impact on the business. Thus, the cheapest and best source of cash is working capital within the business and good management of working capital generate cash which helps to improve the business as well as reducing risks (Kavitha, 2007). Consequently, inadequate and excess working capital has an impact on firm profitability (Ching et al, 2011). Thus, an effective working capital management (WCM) as well as working capital policy (WCP) are critical.
to business success (Zhou & Wijewardana, 2012) and hence the need to ascertain the impact of working capital management in enhancing profitability in the electricity distribution industry in Zimbabwe.

**The Working Capital Management concept**

Working capital management is primarily concerned with the management of current assets and subsequently the business’ current liabilities (Ernst & Young, 2014; Too et al, 2016). Furthermore, Harris (2005) states that working capital management is also a straightforward concept of ensuring the availability of funds of the short-term assets and the short-term liabilities of the firm. It is therefore clear that, current assets and liabilities are important components of the total assets and hence, there is need to carefully analyse working capital management as argued by Afza & Nasir (2007). Scholars like Smith (1980) & Leon (2013), argue that because of the significance of working capital management in the accounting area, a careful and systematic investigation of the company assets is essential so as to indicate the profitability of the firms, the risk involved and its actual value. For that reason, Nimalathasan (2010) & Too et al (2016) stresses the aim of the working capital management process, which is to make certain that a firm is able to continue its operations with enough cash flows as a means to satisfy both maturing and short-term debts as well as the future operational expenses. Thus, its decisions are purportedly based on cash flows and profitability (Brigham, 1994).

Generally, as noted by Lamberton (1995), working capital management is the ability to plan and control current assets and liabilities in a manner that eliminates the risk of failure to meet short-term obligations and avoid excessive investments of assets. Hence, Ching et al (2011) & Nyabwanga (2012) states that the significance of working capital management is clear when implemented efficiently and effectively because it can create a true business’ competitive advantage. Accordingly, it is vital to note that working capital management is a sensitive area in the financial management field (Joshi, 1994; Horne & Wachowicz, 2000; Padachi, 2006) since the shortages of working capital results in the firm’s inability to run its day-to-day operations. Hence, finance scholars state that working capital management is a vital component of corporate finance not because it deals with the liquidity but also profitability and growth of a business (Scherr, 1989; Too et al, 2016). Likewise, Atrill (2006) & Ukaegbu (2014) strongly stress that working capital management is is crucial to the financial health of any type of business because the amount invested in working capital is often high in percentage to the total assets employed (Ware, 2015). Accordingly, without doubt the management of short-term assets is as equally significant as the management of long-term financial assets since they both directly contribute to the maximization of the firm’s profitability, liquidity and total performance (Ching et al, 2011; Ware, 2015). In fact, several researchers have established that the efficient management of working capital is pivotal to the health and performance of all business enterprises hence, the need for firms to make use of efficient working capital management practices as an approach to improving their value (Kotut, 2003; Padachi, 2006). Accordingly, the investigation on the working capital management practice focused on four paradigms that include cash management practices, receivables management practices, inventory management practices and finally the current liabilities management is significant to any business in any part of the world (Nasir, 2007; Too et al, 2016). Thus, the key to understanding a company’s working capital cycle is to know where payments will be made and collected as well as to identify areas where the cycle is stretched and could possibly be reduced (Duah, 2015).

**The liquidity concept**

The liquidity can be understood in terms of cash flows as opposed to stocks (Brealey, 2012) or the ability to realize cash flows (Lamberson, 1995; Williamson, 2008). Whilst, Chatterjee (2012) defined liquidity as a large cash position in assets that are easily convertible to cash and from a purely accounting perspective, liquidity means how quickly an asset can be transformed into cash (Bouttes, 2011; Priya & Nimalathasan, 2014). Hence, liquidity is of major significance to firms because of its relationship with the day-to-day operations of the business (Agarwal & Mishra, 2007; Bhunia, 2010; Ware, 2015). Accordingly, poor management of working capital is the one tied up to idle assets. Consequently, this reduces the liquidity of the company and its ability to invest in productive assets like plant and machinery (Alipour, 2011; Panigrahi, 2013). As a result, adequate liquidity and its careful management make a sizeable difference between the success and failure of an enterprise (Atrill, 2006; Bhunia, 2010). In addition, Atrill, (2006) & Brealey (2012) talk about liquidity in terms of liquidity ratios which are current ratio, quick (acid test) ratio and cash ratio. Thus, current ratio is defined as the ratio of the current assets to the current liabilities and it clearly measures the margin of the liquidity (Ngwili, 2013; Azhar, 2015). That said, liquidity ratio is described as the quick (acid test) ratio and which is an indicator of a company’s short term liquidity and is calculated as current assets net of inventories divided by current liabilities (Bindseil, 2005; Ware, 2015). Thus, the higher the quick ratio, the better the company’s liquidity position and vice versa and this is used to measure a company’s ability to meet its short-term obligations with its most liquid assets although inventories are excluded from this process (Williamson, 2008; Brealey, 2012; Ngwili, 2013). Furthermore, the cash ratio is explained as the ratio of a company’s total cash and cash equivalents to its current liabilities (Bhunia, 2010; Brealey, 2012). Likewise, the cash ratio is used as a measure of a company's liquidity and therefore, it is noted that a company’s most liquid assets are its holdings of cash and marketable securities (Ngwili, 2013; Munyoro & Shaningwa, 2019). Thus,
conclusively a strong cash ratio is useful to creditors when deciding how much debt, if any, they would be willing to extend to the asking party (Williamson, 2008; Panigrahi, 2013).

The profitability concept

Profit is defined as the primary objective of a business, which is an absolute measure of earning capacity or the excess of return over outlay (Iyer, 1995; Nimalathasan, 2009; Dong & Su, 2010; Munyoro & Shaningwa, 2019). In view of the heavy investment which is requisite for the success of most enterprises, profit in the accounting sense tends to be a longer term objective which measures both the success of the product, and the development of the market (Bindseil, 2005; Nishanthini & Nimalathasan, 2013; Munyoro & Shaningwa, 2019). Furthermore, profit is also determined by matching revenue against cost associated with it (Nimalathasan, 2009; Ngwili, 2013). In general, profitability is also regarded as the ability of a given investment to earn a return from its use (Nimalathasan, 2009; Brealey, 2012; Nishanthini & Nimalathasan, 2013; Munyoro & Shaningwa, 2019). In fact, profitability shows how competently management can make profits by using availed resources available to them in the market (Harward & Upton, 2001; Bindseil, 2005). Therefore, high percentages of profitability as noted by Gitman (2002) play a vital role in bringing external finance to the business because creditors, investors and suppliers do not hesitate to invest in such a lucrative company. Indeed, enhanced resources utilization leads to value creation (Bindseil, 2005) and these include the Net profit margin, Return on assets (ROA), Return on equity (ROE) and Pay-out ratio (Brealey, 2012). Thus, net profit margin is calculated as net income divided by revenues, or net profits divided by sales. Thus, measuring the proportion of sales that finds its way into profits (Nimalathasan, 2009; Ngwili, 2013) and a higher profit margin indicates a more profitable company that has better control over its costs compared to its rivals (Kotler & Keller, 2009). Likewise, the return on assets ratio is calculated by dividing a company's annual earnings by its total assets, which measures the performance of the firm and is also an indicator of how profitable a company is relative to its total assets (Brealey, 2012; Ngwili, 2013; Duah, 2015; Munyoro & Shaningwa, 2019). Furthermore, the return on equity (ROE) ratio is calculated as net income divided by shareholders equity as its mandate is to measure a company's profitability by revealing how much profit a firm generates and how much money the shareholders would have invested (Brealey, 2012). Hence, ROE is useful for making a comparison of the profitability of a company to that of other firms in the same industry (Ngwili, 2013). Whilst, profitability ratio is the pay-out ratio, which is calculated as dividends divided by earnings, and it measures the proportion of the earnings that are paid out as dividends (Brealey, 2012; Ngwili, 2013). Thus, the pay-out ratio is a key financial metric used to determine the sustainability of a company's dividend payments as a lower pay-out ratio is generally preferable to a higher pay-out ratio (Munyoro & Shaningwa, 2019). It is also noted that managers do not like to cut dividends if there is a shortfall in earnings (Iyer, 1993).

Working capital management models

There are several working capital management theories available in the literature and some of them are discussed in detail below.

- **The trade-off model**

The model demonstrates that firms decide their optimal level of cash holding by comparing the marginal cost and benefits of holding cash (Too et al, 2016). Hence, any change in working capital management in a business will affect either liquidity or profitability of the organisation (Munyoro & Shaningwa, 2019). Thus, working capital management is seen as a razor edge exercise for financial managers of an enterprise as they have to make decisions cautiously to ensure that the firm’s twin objectives of profitability and solvency are not affected (Harward & Upton, 2001). Hence, there is an understanding that if a firm maintains a huge amount of current assets its profitability will be affected although it will be protecting its liquidity which is also the case if a firm maintains low current assets, and it is obvious that this will automatically weaken its liquidity position even though it would be enhancing its profitability (Bindseil, 2005; Ngwili, 2013). In addition, it is stated that excessive levels of current assets can easily result in a firm realizing a substandard return on investment whilst, firms with too few current assets might incur shortages and difficulties in maintaining smooth operations (Van Horne & Wachowicz, 2000; Munyoro & Shaningwa, 2019). Thus, preserving liquidity and profitability of a firm is a vital objective of any company because forfeiting profit maximization at the expense of liquidity can bring serious problems to the firm and vice-versa and hence, the need for firms to meticulously invest in working capital management as it directly affects the liquidity and profitability of an organization (Too et al, 2016). Therefore, it is worth noting that the ultimate objective of a firm’s shareholders is wealth maximization and hence, the need for a firm that wishes to accomplish this goal would have to be a striking balance between current assets and current liabilities, and as a result keeping abreast of the liquidity and profitability trade-off (Brealey, 2012; Duah, 2015; Too et al, 2016; Munyoro & Shaningwa, 2019). In short, if a company does not care about its profitability in the market, it cannot survive for a long period. Additionally, if it does not care about liquidity, it may face the jaws of insolvency or bankruptcy as noted by Harward & Upton (2001). Nevertheless, for some scholars, liquidity plays a more central role because a company with low liquidity is supposedly believed to have a better capacity to serve the economy than a company with low liquidity levels (Chatterjee, 2012; Too et al, 2016; Munyoro & Shaningwa, 2019).
• **The Keynesian liquidity preference theory**

Another theory that supports the study of working capital management is the Keynesian liquidity preference theory that was formed by John Keynes in 1936. The theory discussed that when all other things are kept constant, investors still prefer liquid investments to illiquid ones, and will always demand a premium for investments that have longer maturity periods (Duah, 2015). Accordingly, this theory points out that people hold cash or inventory for transaction, speculative, precaution, and compensation motives (Brealey, 2012; Too et al, 2016). Consequently, this confirms the need to have the working capital constantly in order to run the day-to-day business activities and this as a result cannot be disregarded and hence, the need for a company to invest and turn much of their available funds into current assets in order to ensure the success of their firm’ operations (Pandey, 2010; Munyoro & Shaningwa, 2019).

• **The aggressive theory**

The aggressive theory is applied where the firm plans to assume high risk and also where short term funds are used to a very high level to finance current and fixed assets and this approach is apparently characterized by low interest rates (Too et al, 2016). Equally, it is essential to note that the risk associated with short term debt is higher than long term debt and this applies mostly to companies operating in stable economies and thus, are positive about future cash flows (Too et al, 2016; Robles, 2016). Accordingly, the company with an aggressive working capital policy offers short credit periods to customers; hold minimal inventory and have a small amount of cash in hand (Munyoro & Shaningwa, 2019). This strategy in the end increases the risk of defaulting by the company as a result of the firm’s lack of resources to meet its short term liabilities even though the theory gives a high return as it is associated with high risk (Chatterjee, 2012). Further, it is stated that the aggressive working capital theory and the working capital management policy assumes more risk, implying a lower investment in working capital accounts which also means lower levels of inventories, the shortening of trade credit to customers and to postpone the payment to suppliers (Robles, 2016; Too et al, 2016). Accordingly, this theory therefore, means both a greater profitability as well as a high risk for companies and the relationship between working capital management and profitability is verified through the studies of Hager (1976), who articulated that firms holding lower levels of working capital accounts tend to reduce the cost of holding unproductive assets, such as marketable securities (Too et al, 2016). Nonetheless, these firms allegedly tend to increase their payables, thus reducing the company’s financing needs as argued by Munyoro & Shaningwa (2019).

• **The agency cost of free cash flow theory**

As for the agency cost of free cash flow theory it was put forward by Michael Jensen in 1986, and it brings out the fact that organizations suffer from agency costs as a result of free cash flow because managers are always tempted to pile up cash under their control and make investment decisions which might not be in the best interest of the shareholders (Jensen, 1986; Too et al, 2016; Robles, 2016; Munyoro & Shaningwa, 2019). That said, Jensen (1986) stated that free cash flow which is cash in excess was required to fund all projects that will have positive net present values when discounted at relevant cost of capital. In fact, efficient working capital management was essential in order to avoid situations whereby managers mismanaged the resources of the organization for their own self-interests (Jensen, 1986; Too et al, 2016).

**RESEARCH METHODOLOGY**

The research philosophy used in this study was the positivism philosophy (Zikmund et al, 2013; Munyoro & Shaningwa, 2019) for the reason that this philosophy is inclined to quantitative analysis and popular because it is widely used in studies that have causal relationship analysis (Bryman & Bell, 2015). Furthermore, a case study research design was used in conducting this study (Bryman & Bell, 2015). Thus, this case study design enabled the incorporation of the views of the officials of the ZETDC without the researcher influencing their attitudes, whilst permitting the exploration of behavioural patterns as argued by Yin (2009). Additionally, the case study design through the explanatory strategy offered in-depth details and understanding of the various impacts of independent variables to dependent variables in this study (Ihuah & Eaton, 2013). Likewise, a sample in this study was made up of 100 officials and in the following manner: Technical and Engineering (20), Corporate Services (30), Finance (40) and Office of the Chief Executive Office (10). It is worth noting that this study adopted the convenience sampling method which is a non-probability sampling technique used on the basis of convenience due to time, cost and other resource constraints (Dornyei, 2007; Teddlie & Yu, 2009; Munyoro & Shaningwa, 2019). In addition, the choice of respondents was based largely on the accessibility and willingness of respondents to participate in the study. Furthermore, this study made use of questionnaires in collecting data from the officials of the ZETDC (Sekaran & Bougie, 2012; Munyoro & Shaningwa, 2019). Thus, questionnaires are seen as very convenient way of collecting useful and effective data from a large number of individuals at minutest effort and time and as a result they can produce valid and significant results if the questions are clear, precise and are asked consistently across all respondents (Mathers et al, 2009; Sekaran & Bougie, 2012; Munyoro & Shaningwa, 2019). That said, the issue of anonymity was upheld, thereby allowing respondents to give unbiased answers without fear of victimization (Cresswell & Clark, 2011; Munyoro & Shaningwa, 2019).
Data analysis and presentation method

Two main data analyses were adopted and descriptive statistics analysis was done using the measures of central tendency and measures of variability such as arithmetic means, variances and standard deviations (Kennedy, 2007; Munyoro & Shaningwa, 2019). Then, the correlation analysis and regression analysis were also used to examine the significance of working capital management in enhancing the profitability of the ZETDC. Furthermore, the Statistical Package for the Social Sciences (SPSS) was used to analyse quantitative data whilst qualitative data was categorized according to a qualitative questions in the questionnaire and involved an iterative process that finally emerged in the form of themes (Seidel, 1998; Munyoro, 2014; Munyoro & Shaningwa, 2019). Additionally, the responses were coded in terms of certain subjects and themes (Seidel, 1998; Gibbs, 2002; Munyoro, 2014; Munyoro & Shaningwa, 2019).

RESULTS AND DISCUSSION

A total of 100 questionnaires were distributed across various departments and the response rate was 90% and this response rate is respectable because a response rate of 50% to 100% is a good response rate for any study and the data was reliable as it was through the Cronbach’s Alpha. In fact, the minimum acceptable value is alpha score of 0.7 (Wixom & Watson, 2001), even though an alpha value of 0.5 is acceptable (George & Malley, 2003) and this means an alpha score below 0.5 is poor. Accordingly an alpha score between 0.7 and 0.8 is good and an excellent score is that one above 0.8. The good thing about this study is that the data collected in this research was deemed to be reliable because the Cronbach’s Alpha had a score of 0.86 and the majority of the respondents in the study were between 25 to 34 years and accounted for 40% of the total population whilst the age group of 35-44 years had a 30% representation. The age group of less than 25 years had a representation of 20% whilst, the remaining 10% were of the 45-54 age group. Interestingly, the findings show that 70% of the respondents constitute the majority of the respondents who were either holders of degrees or Masters/PhD whilst 20% had diplomas and only 10% had secondary school education. In addition, the findings from the study revealed that the majority of the respondents had spent between 5 to 10 years in the organisation that is 60% of the total response whilst 30% had 11-15 years and the remaining 10% had less than 5 years of experience.

Factor analysis

The study wanted to understand the major determinant to how respondents answered questionnaires thus a Kaiser’s stopping method was used. Consequently this tool considers factors with an Eigen value above one and in this study the results from this method are shown in the table below.

Table 1: Factor analysis

<table>
<thead>
<tr>
<th>Component</th>
<th>Initial Eigen values</th>
<th>Extraction Sums of Squared Loadings</th>
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<tbody>
<tr>
<td></td>
<td>Total</td>
<td>% of Variance</td>
</tr>
<tr>
<td>1</td>
<td>1.253</td>
<td>12.534</td>
</tr>
<tr>
<td>2</td>
<td>1.600</td>
<td>16.005</td>
</tr>
<tr>
<td>3</td>
<td>1.306</td>
<td>13.056</td>
</tr>
<tr>
<td>4</td>
<td>1.933</td>
<td>19.335</td>
</tr>
<tr>
<td>5</td>
<td>1.020</td>
<td>10.197</td>
</tr>
<tr>
<td>6</td>
<td>.870</td>
<td>8.695</td>
</tr>
<tr>
<td>7</td>
<td>.309</td>
<td>3.090</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
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<tr>
<td>Cumulative %</td>
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</tbody>
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From the factor analysis in the table 1 above, it is clear that the number of years in department was the major determinant factor to the way respondents answered the questionnaires as it had the highest Eigen value of 1.933 as compared to age, education and years in the organisation which had slightly lower Eigen scores of 1.25, 1.6 and 1.3 respectively. After the number of years in a department were figured to be the main determinant in this study this then was used to carry out the analysis of variance (ANOVA) test which is shown in the table 1, above too.

Analysis of variance

In this study, the researchers resorted to using a likert scale so as to establish lucidly the perceptions of the respondents on various issues which could not be answered by a simple yes or no as shown in table 2. Therefore, the likert scales used was as follows: 1=strongly agree, 2=agree, 3=neutral, 4=disagree and 5=strongly disagree. As indicated by the Likert scale used in the study any mean below 3 indicated agreement with the notion whilst a mean above 3 meant disagreement.
Table 2: Analysis variance

<table>
<thead>
<tr>
<th>Statement</th>
<th>Mean</th>
<th>Std. dev</th>
<th>Anova P. Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Working capital management enhances profitability</td>
<td>1.3</td>
<td>0.94</td>
<td>0.23</td>
</tr>
<tr>
<td>There is better access to markets when you enhance the availability of working capital in the organisation</td>
<td>1.9</td>
<td>0.88</td>
<td>0.08</td>
</tr>
<tr>
<td>Working capital management enhances production.</td>
<td>1.6</td>
<td>1.01</td>
<td>0.31</td>
</tr>
<tr>
<td>Working capital management improves profits.</td>
<td>2.1</td>
<td>0.93</td>
<td>0.06</td>
</tr>
<tr>
<td>Working capital management enables savings and investments.</td>
<td>2.3</td>
<td>0.84</td>
<td>0.13</td>
</tr>
<tr>
<td>Working capital management guarantees business survival and continuity.</td>
<td>1.4</td>
<td>0.97</td>
<td>0.34</td>
</tr>
<tr>
<td>Working capital management ensures better performance of the organization.</td>
<td>2.9</td>
<td>1.1</td>
<td>0.42</td>
</tr>
<tr>
<td>Working capital management creates more business and employment opportunities.</td>
<td>3.0</td>
<td>1.0</td>
<td>0.04</td>
</tr>
<tr>
<td>Working capital management creates infrastructure</td>
<td>2.3</td>
<td>0.95</td>
<td>0.41</td>
</tr>
<tr>
<td>Working capital management is significant to electricity distribution sector</td>
<td>1.4</td>
<td>0.92</td>
<td>0.53</td>
</tr>
</tbody>
</table>

- **Working capital management enhances profitability**

  In this study it was revealed that working capital management enhances profitability by a mean score of 1.3 which was recorded with a standard deviation of 0.94 showing that this was not a result achieved by accident. Additionally, a further Anova p. Value of 0.23 shows that this notion was significant to the study as it produced positive results.

- **There is better access to markets when you enhance the availability of working capital in the organisation**

  The table above shows that market access or the efficiency of the electricity distribution sector is attributed to the availability of working capital with a mean score of 1.9 being observed in tandem with a standard deviation of 0.88. Accordingly, an Anova p value of 0.08 indicated that this result was significant to the study.

- **Working capital management enhances production**

  The results from the study also revealed that working capital management enhances production. This was supported by a mean score of 1.6 which shows an agreement to the notion that a standard deviation of 1.01 showed that the opinions of the respondents were of the same mind. Also an Anova p. Value of 0.31 showed that this statement is significant to the study.

- **Working capital management improves profits**

  It is worth mentioning that working capital improves the profits of an organisation as indicated by a mean score of 2.1 which was recorded together with a standard deviation of 0.93 thereby showing that the responses are in the same range. This is supported by a further Anova p. Value of 0.06 indicating that this notion is significant to the study.

- **Working capital management enables savings and investments**

  Also in this study, working capital was deemed to enable savings and investments. This was supported by a mean score of 2.3 and a standard deviation of 0.84 whilst an Anova p. Value of 0.13 showed the importance of this statement to the research study.

- **Working capital management guarantees business survival and continuity**

  From the research findings in this study, it was revealed that working capital management guarantees business survival and continuity. As stated in the analysis of variance, a mean score of 1.4 and a standard deviation of 0.97 were recorded. That said, an Anova p Value of 0.34 indicated the importance of this notion to the study.

- **Working capital management ensures better performance of the organization**

  With regards to the notion, a mean score of 2.9 was recorded indicating that most of the respondents were in agreement with this statement whilst a standard deviation of 1.1 showed that the responses varied widely from the mean. Nonetheless an Anova p. Value of 0.42 showed that this notion is significant to the research.

- **Working capital management creates more business and employment opportunities**

  The study revealed that the respondents were undecided on whether working capital management creates more business and employment opportunities or not. This is supported by a mean score of 3 and a standard deviation of 1 showing that the majority of the respondents were of the same view. Likewise, an Anova p. Value of 0.04 suggested that this notion was not significant to the study under discussion.
• Working capital management creates infrastructure

From the study, it was found that working capital management creates infrastructure. Thus, this was supported by a mean score of 2.3 and a standard deviation of 0.95 whilst an Anova p.Value of 0.41 highlighted the importance of this statement to the study.

• Working capital management is significant to electricity distribution sector

Having carried out a thorough assessment of the data gathered during this study, it concluded that working capital management is significant to electricity distribution sector as indicated by a mean score of 1.4 and a standard deviation of 0.92 reinforcing that these findings were not a mere coincidence but rather they were a true reflection of the opinions of the respondents. Closely related to that an Anova p. Value of 0.53 ascertained that this notion is significant to the study at underhand.

CONCLUSIONS AND IMPLICATIONS

Major findings

• Working capital management enhances profitability

The findings from the study show that working capital management enhances profitability (Gentry et al, 1990; Jose et al, 1996; Farris & Hutchison, 2003; Munyoro & Shaningwa, 2019) and there is empirical evidence which shows that there is a significant relationship between working capital management and profitability in public listed companies in the United States of America (Shin & Soenen, 1998; Farris & Hutchison, 2003). Thus, Thapa’s study of 2013 in the food and beverages industries in the USA and Canada show that working capital management was positively related to profitability and cash flow (Munyoro & Shaningwa, 2019). Also reinforcing these findings, Ngendakumana et al (2015)’s Zimbabwean study reveals that a company’s working capital management efficiency improved its profitability something that was retaliated by Too et al (2015) who stated that profit maximization through working capital management enables a company to realise its ultimate objective of maximising shareholder’s wealth—which is the ultimate goal of every company. Accordingly, there is need for ZETDC to attract more investors in order to make further capital investments so that it can be able to contain the growing demand in electricity in the country. Thus, this is also supported by Eskom (2015) which observed that the challenge in the electricity distribution sector rests with funding because some of these distributors are underfunded making it difficult for them to meet the operations costs as well as the demand, as costs tend to outstrip the income because of the prices that are regulated. Therefore, with good working capital management, ZETDC is going to enhance its profitability by so doing improving its efficiency and effectiveness in distributing electricity in Zimbabwe (Munyoro & Shaningwa, 2019). In addition, Gitman (200) also states that high percentages of profitability play a pivotal role in bringing external finance to the business due to the fact that creditors, investors and suppliers are willing to invest in such companies, whilst the enhanced resource utilization that is upheld by working capital management also leads to value creation that is pursued by most investors in now days. Furthermore, the profitability enhancement impact of working capital management will enable ZETDC to plough back its own profits into the required capital investments, thus reducing dependence on expensive debt financing (Munyoro & Shaningwa, 2019).

• Working capital management is significant to electricity distribution sector

The findings from the study revealed that working capital management is significant to the electricity distribution sector in Zimbabwe (Munyoro & Shaningwa, 2019) because the existence of working capital management is a crucial financial strategy which represents about 27% of total assets of all nonfinancial firms in Belgium (Deloof, 2003). This is also supported by the Ministry of Power (2005) that stated that an efficient, resilient, and financially robust electricity distribution sector is essential for growth and poverty reduction in an economy (Ching et al, 2011) hence its significance to the electricity distribution sector especially to ZETDC because when properly used, working capital can create a competitive advantage in business (Ching et al, 2011; Munyoro & Shaningwa, 2019). This is so because working capital management directly affects liquidity, profitability and growth of a business such as electricity distribution and transmission sector in Zimbabwe (Too et al, 2016). Additionally, other benefits of working capital is its potential to make critical infrastructural and technological investments, to contain the current swelling demand as well as attracting prospective investors in this highly capital intensive sector (Munyoro & Shaningwa, 2019).

• Working capital management enhances production

This study shows that working capital management enhances production and this notion is supported by the findings of Alagh (2013) who stated that the distribution of electricity has deteriorated severely as a result of heavy electricity distribution sector losses among other challenges. This has also been exacerbated by heavy borrowing which has led to staid decline in production hence, the need to employ working capital management in order to ease this problem (Munyoro & Shaningwa, 2019).
• **Working capital management guarantees business survival and continuity.**

This study revealed that working capital management guarantees business survival and continuity (Department of Economic and Social Affairs, 2013). Thus, the use of working capital management will enhance survival prospects of ZETDC and ease the power shortages in the Zimbabwean electricity distribution sector because of the significance of electricity to economic development (Munyoro & Shaningwa, 2019). Thus, working capital management will guarantee the survival and continuity of the electricity distribution sector in Zimbabwe.

• **Working capital management enables savings and investments**

This study shows that working management enables savings and investments and this is in line with Tallapragada (2009) who noted that a serious shortage of financing in the electricity sector has generally been blamed on the dearth of investment through lack of working capital management (Weston & Brigham 1994; Munyoro & Shaningwa, 2019). Additionally, working capital is considered to be an efficient and effective financial strategy of savings and investments in the electricity distribution sector in Zimbabwe and beyond.

**RECOMMENDATIONS**

There is need for researchers to look into other variables that might be affecting the electricity distribution sector such as government policies, industrial growth, consumption of electricity in the country and alternative sources that could be used to alleviate electricity resource. Additionally, there is need for electricity distribution sector in Zimbabwe to have ZETDC driven initiatives that will be devised through internal strategies like working capital management in order to avoid depending on imports from Mozambique and South Africa which is grappling with its own electricity power supply challenges and that means depending on South African is not sustainable in the long run (Von Oertzen 2012; Munyoro & Shaningwa, 2019). Furthermore, there is also need for ZETDC to come up with smart grid networks in their distribution of electricity so that there is simultaneous production and consumption of the product, since electricity cannot be stored and hence, all generated electricity should have ready consumers in order to avoid load losses (Munyoro & Shaningwa, 2019). In addition, there is need for ZETDC to effectively manage their receivables and payables in a manner that is recommended by the working capital management practice that encourages the shortening of collection periods and delay payments as much as possible and this was proved to be effective by Dellof (2003) study in Belgium, where the results show that profitability can increase by reducing the length of the accounts receivable period, whilst waiting longer to honour payables (Munyoro & Shaningwa, 2019). Likewise, the government of Zimbabwe should revise the regulation policy on electricity distribution because electricity has been heavily subsidised at the expense of electricity generation and distribution, making it difficult for ZETDC to meet its financial demands (Watson & Head, 2001; Munyoro & Shaningwa, 2019). For example, the Indian government recommended that all electricity distribution companies should be resourceful, flexible, and financially strong to ensure that there is growth of the industry and in the process reducing poverty and they achieved this by revising the regulation policy on electricity distribution (Ministry of power, 2005; Munyoro & Shaningwa, 2019).

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