# Account receivable management across Industrial sectors in Ghana; analyzing the economic effectiveness and efficiency

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3 July 2017

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## A. ABSTRACT

Since account receivable constitute a significant portion of current assets in manufacturing and wholesale firms, the study aimed at investigating trade credit and principles adopted by firms in the management of account receivables across the industrial sectors in Ghana. This enabled the study to examined strengths and weaknesses in account receivable strategies by firms in Ghana and recommend economically effective and efficient practice.


Keywords: Account receivable management, Account receivable policy, Trade credit, Finance

## B. INTRODUCTION & BACKGROUND

Trade credit could be defined and or explained in so many contextual ways depending on when and where as well as what it is being used for. For instance, it could mean cash credit obtained for trading or a business from a bank or elsewhere in the form of a loan. It could also be used to represent credit sales which is the extended term or payment space obtained by a firm to pay for the goods or service acquired from another company but the paper in-depth studies will revolve around the latter explanation. Not having to pay for the goods immediately, provides the purchasing company with time to obtain the money or the opportunity to use its capital reserves for other purposes. Trade credit in this paper would be termed as accounts receivable and accounts payable anytime it is being measured.

Trade credit is a regular and quite a common practice in Ghana across the length and divide of many businesses with their clients. The pursuit of this concept is beneficial to both buyers and suppliers in several ways. Despite the numerous attaining benefits, trade credit is also characterized by several challenges. Though some clients adhere to the terms and conditions strictly, many are the cases where clients especially buyers are in default and in a manner that totally violates and dislocates the stipulated terms and conditions been it documented or not. Mention could be made of delay in payments, payments defaults and in extreme cases some individuals and entities deliberately refuse to pay and others even wind up and bolt. This I believe is as a result of the informal nature of trade credit pursuit that dominates the practice of this concept, in Ghana. The motives behind the use of trade credit according to Petersen & Rajan (1997), are grouped into three classes: financial advantage theory, price discrimination theory (commercial motives), and transaction costs theory (operational motives). Macroeconomic and firm-specific factors are the key elements that impacts trade credit. A robust credit control system slashes the amount of capital locked up with debtors and minimizes bad and doubtful debts. Prudent credit management involves optimizing cash flow to stabilize the firm finances and make room for increased potential growth, culminating into profitability. Credit occurs when an entity does not receive such cash immediately for goods sold or service provided to a client. It is an important marketing tool that makes way for the movement of goods on the supply chain. Thus, from production till it gets to the final consumer. A firm may offer credit sale to preserve and protect its market share from competing forces around and to entice and invite new clients to it market and products at good terms. Account receivables to be collected or received later in the near future come about as a result of credit sales activities.

The primary aim of accounts receivables management is to increase a firm's worth by establishing a balance among liquidity, risk and profitability. The motive behind any profit making venture is profit making. Firms do not thrive on credit solely to boost sales but profitable sales. The core aim of managing accounts receivables should not be limited to sales increase but should seek to increase investment returns" (Wood, 1953). A very important segment of managing receivables has to do with the proper selection of customers for credit due to the potential risk of delayed payment or non-payment of the value involved (Hrishikes, 2002). Many firms in recent times are preoccupied with the strategies to stay relevant in the market with increasing keen and brutal competition on the market as a results of the introduction of close substitutes to the firm's own products made available by competitors .In addition to that, managers face various hurdles to jump which include the achievement of optimum levels of profits, improving the general performance of the firm and maximizing the investment worth of shareholders which are products of increased revenue obtained from sales and reduced cost. This has caused several entities to employ all manner of tools and mechanisms to entice new customers to patronize their products or to retain their existing share of the market. Among the strategies adopted is the offering of credit sales to customers. This kind of competition provides a real incentive and the space for managers in manufacturing especially industry to adopt a strategy to push their stocks to the market hoping for a positive response and successful sales transaction which is capable of keeping the customer for further business. Credit sales is one of the approaches firms adopt to promote sales and it has turned out to be a tool in enticing customers in retaining the business relationship with the company and in time increase the firm's profit and eventually leads to optimizing the company's profit. However, many organizations are trapped into problems, since not all customers pay-in time for such goods, sold to them on credit, or ever at all. Managers are ever bent on increasing returns in order to make time for daily activities and seek ways to cut cost .Credit sales is almost a general practice especially with firms that manufacture their own products and wholesale entities who sell primarily to non-end users. Greater portions of the revenue are realized through credit related transaction. This makes receivables a significant proportion of the firm's current assets. It is evident that accounts receivables are forms of investment in any business entity whether it is a manufacturing or a wholesale firm that sells on credit basis. However it practice always project the volume of cash locked up with trade debtors. Therefore, it requires a proper analysis and prudent management to ensure receivables are well managed to culminate in an increase in sales and profitability which forms the delicate aspect of firms success. Managing trade debtors is quite a complex task and not easy to be treated in an analytical way since inventories for instance may not have physical characteristics. In principle, every business would want to receive payment for the goods and services immediately sales is realized. Considering the revenue realization concept in Accounting, revenue is recognized once a sale takes place and hence profit is realized. However, until payment is received for the transaction in question, the inputs in the process cannot be utilized on another operating cycle, this therefore requires the need for a firm and robust management of the entity's credit transaction and the accounts receivable asset thereof.

Improper handling of accounts receivable often leads to frequent disruptions in the firm's day to day activities caused by improper and unreliable cash flows which could result in issues such as delayed or non-payment of suppliers of goods and services, non-payments of employees and inability to meet statutory obligations. This can easily halt production or business. J. Salek (2005) stated that cash is the life line of any entity and every dollar of a company's revenue that becomes a receivable, must be managed and collected. Improper management of receivables adversely impacts profits in two ways; debts written off often reducing the firms' profits directly, in the profit and loss account; Secondly, when a lot of funds are tied up with customers, the firm may struggle financially and it is likely to find itself borrowing at a cost to finance activities which also eats away some profit. Apart from the bad debt and interest expenses, there are legal expenses associated with debt collection. Ineffective management of accounts receivable, could put the firm in a poor credit rating category making it difficult and very expensive to obtain funding from other institutions to operate. Extreme liquidity problems resulting from locked up cash with debtors could lead to insolvency which would eventually lead to the collapse of the firm.

Many businesses lack the time and required expertise to properly manage accounts receivable and interconnected business activities. The process to effectively and efficiently manage credit and receivables in economical strategies involves team work, which are credit control, marketing, finance and accounting function staff (Megginson 2008). The four named departments need to relegate to the background any conflicting interests to ensure this delicate asset is managed to the optimum level. Otherwise, the firm will become prone to treacherous losses in the long term. It is very important for management to have in place formidable policies and required practices to effectively and efficiently manage this very sensitive and important asset of accounts receivable to ascertain increased sales turnover, as a result of credit sales due to improved cash flows

The ultimate focus of the study was to research into the determinants of trade credits as well as the principles and practices adopted by firms in Ghana to effectively and efficiently manage accounts receivables. Per the above reasons, the study specifically sought to:-

(i) Find the relationships between determinants and the offer of trade credit by analyzing the data of determinants with trade credit, specifically focusing on selected companies in Ghana

(ii) Examine the effects of the principle of credit extension and credit collection on management of accounts receivable.

(iii) Investigate the role of principles of credit control and monitoring in managing of accounts receivable.

(iv.)Investigate the role of the principle of pricing, order processing, and invoicing on management of accounts receivable.

## C. THEORY & LITERATURE

Accounts receivables are debts owed to the firm by customers arising from sale of goods or services in ordinary course of business (Joy, 1978). Therefore, accounts receivables form part of asset accounts. This depict amounts owed to the firm due to credit sale of goods and services in the course of business. There are several proposed theories available for trade credit. The Financial theory; (Mian and Smith, 1974) argue that firms that are able to obtain funds at lower cost will offer trade credit to those with higher costs of funding. This means, trade credit is more profitable to sellers in the short term than marketable securities. The Operational theory lays emphasis on the role played by trade credit in levelling demand and curbing payment uncertainties. Emery (1987) and Feris(1981) are also of the view that trade credit can minimize uncertainty with cash flow by separating the payment and the delivery cycles for both the buyer and seller to save the cost of handling liquidity.

The Commercial theory contends that, trade credit enhances the marketability of products. Thus trade credit makes it quite easy for firms to sell (Nandiri, 1969). Credit sales can also be used to increase profitability through price discrimination (Bannan, Makismovrc and Zenchar, 1998). This simply refers to the offer of same product at different prices to various customers. The International Financial and Reporting Standards (IFRS) and International Accounting Standards (IAS),acknowledge accounts that are measured according to IAS(39) and are disclosed in accordance with IFRS(7). According to IAS (39) on Financial Instruments Recognition and Measurement, trade debtors are measured at their fair value. IFSR(7) clearly spells out disclosure requirements that are intended to enable users to assess the importance of financial instruments for an entity's financial position, and to comprehend the nature and the quantum of risks arising from the financial instruments in question to which the entity is exposed. These risks include credit risks, liquidity risks and market risks.

A portion of this study aims at establishing the extent to which firms carry out credit analysis and evaluation on their potential customers and the procedures employed in credit monitoring to establish the status of the accounts receivables held by the firm at any given time. Selling on credit is one method firms use in improving sales and it has turned up to be an enticement for customers in retaining the business relationship with the company and in time increase the company's sales volume and eventually optimizing the firm's profit (Barad , 2010). Selling on credit could be termed as a universal practice especially for manufacturing firms who sell primarily to other firms.

Jain (2001) proposed trade credit to function as a second layer among financial intermediaries and users. Suppliers and banks have to be well informed to determine the credit worthiness of clients and ascertain their default risk rates. Suppliers tend to have quite an easy and cheaper access to financial information regarding customers. Due to this, it is likely for banks to have preference in lending monies to suppliers to cut costs. According to Frank & Maksimovic (2004), trade credit also plays a role in helping suppliers and their customers the opportunity for buyers to reduce their dependence on external sources of funding, especially in market with suppliers being more powerful. Fisman & Love (2003) are of the belief that firms that are granted credit by suppliers grow faster than those without access to a credit facility. Wilson & Summers (2002) also buttresses the above point by contending that entities in their stage of growing faster yet with financial difficulties, often depend on trade credit.

Several theories attempt to explain why suppliers are willing to offer credit to buyers, and why buyers would like to use this expensive form of credit. Frank & Maksimovic (2004) explain that motivation for trade credit concentrates on two aspects: the first facet is related to real operations. It spell the motives of using trade credit, and it includes the theory of transaction cost reduction, price discrimination and quality assurance; the other facet has to do with financial function of trade credit. The authors are of the opinion that suppliers would like to grant trade credit to their buyers: those in financial constraint, so that they will keep long-term relationships with them. Emery (1984) states that in a financial market, which is not well developed, suppliers need reserves in liquidity in order to extend trade credit to make profits. In addition, in a market with less competition, which the suppliers have strong market power; they attempt to sell goods as much as they can, especially in the cases where profit is expected to be higher. Fisman & Love (2003) project the view that reliance on trade credit is an industrial characteristic. They have outlined trade credit provision into four categories based on industry characteristics of the United States: (i) the liquidation of industry, (ii) price discrimination, (iii) guarantee for product quality and (iv) customized products. While from other research source Biais & Gollier (1997), firms depending on trade credit indicate that they possess enough credit worthiness from suppliers, and they are trusted by them. Therefore, outside investors can take this as a signal to provide finance to buyers.

Based on theory of Cheng & Pike (2003), there are big differences in motivations of using trade credit among firms. Some firms take trade credit as an opportunity to improve its corporate image and build strong relationship with customers. Moreover, trade credit is considered as a tool to achieve higher sales from Shiraishi & Yano (2010). Other several empirical literature have indicated more motives for using trade credit but to summarize previous theories, the most prevalent motives are classified by Petersen & Rajan (1997) into three different classes which are financial advantage theory, price discrimination theory (commercial motives), and transaction costs theory (operational motives).

Petersen & Rajan (1997) and Huyghebaert (2006) prove that entities that have difficulties in accessing funding externally tend to rely on credit facilities from suppliers. Several studies; (Petersen & Rajan, 1997; Kohler et al. 2000;Garcia-Teruel& Martinez-Solano, 2010a; Emery, 1984; Demirguc-Kunt & Maksimovic, (2001) demonstrate that suppliers have some advantages on providing trade credit compared with other financing institutions.
These advantages are represented in three aspects. First, suppliers can easily evaluate buyer's financial performance and its creditworthiness through their business (Petersen & Rajan, 1997; Garcia-Teruel& Martinez-Solano, 2010a). Therefore they have less risk for granting trade credit compared with bank credit. Second, suppliers have more power to enforce repayment by threatening buyers to reduce its future supply of goods and services, especially in market of less competition, because buyers will depend significantly on the limited suppliers. In contrast, financial institutions may be restricted by bankruptcy law when draw back its past financial lending (Emery, 1984; Demirguc-Kunt & Maksimovic, 2001).This advantage allows suppliers to provide more trade credit beyond the amount banks are willing to offer (Cunat, 2007). Another advantage as the third condition is that, suppliers in certain industries can repossess goods easily in case buyers cannot realize payment, and resell those goods to other customers.

However, there are some theories which contradict the financial advantages of suppliers aforementioned. First, argued by Burkart &Ellingsen (2004), there are two main shortcomings of monitoring advantages of suppliers. The first shortcoming is that they believe banks are more specialized in assessing the creditworthiness of borrowers compared with suppliers, and banks could obtain enough information about financial situation of borrowers. The second shortcoming is that if

suppliers have more financial information about borrowers, why they do not lend cash to them directly instead only granting the value of inputs as trade credit.
Also, Frank & Maksimovic (2004), share the view that in the default situation of borrowers, sellers can only repossess and resell their goods if the goods are not processed to , otherwise, it is not allowed commercially. This means that the collateral advantage of suppliers is diminished.

Ng et al. (1999) in their works discovered that sellers exercise the choice to offer trade credit with special terms and conditions covering payment periods and reduction rates to selected clients. This is in line with price discrimination theory. The research findings of Petersen & Rajan (1997) are also consistent with this theory. Brennan et al. (1988) emphasize that firms with strong market power offer more trade credit. These businesses thriving on exorbitant profits are motivated to sell more without reducing price to buyers. As a result, they offer the same credit terms to all buyers. However, Brennan et al. (1988) further explain that those buyers with access to other cheaper financing sources realize payment before discount date to obtain discount savings. The buyers without access to other sources of supply are likely to pay due date, to avoid expensive interest costs.

Wilson & Summers (2002) state that, credit terms provided determine the effective price of products. Brennan et al. (1988) also discuss that extending payment period and giving discount for immediate payment are methods of reducing price for customers. However, it could be deduced from the under-listed situations, when credit terms in business are used in relation to discrimination of pricing: First, the flexibility of demanding from credit customers is lower than cash customers. Low flexibility indicates constant demand therefore stable supplier and customer relationship; second, information asymmetry exists in the credit market. In the case of information inefficiency of customers about product, suppliers extend trade credit to increase sales; third, trade credit is used to compete with other competitors in the same industry.

Transaction cost could be deduced from the study of Economics and other linked disciplines, as the cost incurred by partaking in a market. It could be broadly categorized into three main classes being; the cost of searching for a product and ascertaining it condition, the cost of bargaining and negotiating the price with the seller and lastly, the costs of ensuring that the product is delivered on time and the right condition as promised and agreed on . Transaction costs theory is considered as an operational motive which is mentioned by Emery (1984) and Frank & Maksimovic (2004). According to theory of Bougheas et al. (2009), inventory may not be sold for cash and loosing trade credit level can save inventory costs for suppliers by stimulating sales during low demand period. It is also expected that for entities having higher sales growth will potentially grow through increase inventory via credit sales from suppliers. Due to uncertainty and seasonality, demands of product is not regular, suppliers have to respond properly to demand fluctuations by changing price and the level of production. This will lead to extra costs to both suppliers and customers. A better alternative is to offer trade credit. As trade credit allows more flexibility in operations. Wilson & Summers (2002) state the purpose of trade credit provision is not to make profit for suppliers but for pursuing a return on the combination of goods and finance, and long-term relationship with customers

Trade credit may be executed in four major ways but are broadly classified into corporate credit and consumer credit (Hunt, 1996). This study will limit itself to the corporate credit. The bulk of credit sales in corporate business are made of open account, meaning the seller only keeps a single account that records obligations arising out of a sales transaction with the buyer. There is no contractual undertaking in this situation in terms of formal acknowledgement of the debts arising or signed promissory notes. In case of disputes the company can only rely on documents generated during the transaction such as customers‟ orders, delivery notes, invoices and shipping documents in case of foreign trade to prove the validity of a debt in a court of law. In the open account system, there is no collateral security and the firm does not charge interest and enjoys no special rights to recover the goods sold even if the account or debt is not paid (Pinson and Jinnett, 2006). Another way of executing a trade credit is the documentary credit commonly used in foreign trade. In this case, the firm may place additional requirements such as bank guarantees on the buyer before authorizing shipment of goods. The buyer is required to draw a letter of credit in favour of the selling firm or open a bank guarantee in favour of the selling firm (Belay, 2000).

Trade credit may also be in form of instalment credit where payment is made as a series of regular instalments for the principal amount and interest. This form of credit is common for one-off purchase of expensive goods such as motor vehicles, aeroplanes and equipment (Belay 2000). Trade credit can also be a revolving credit where the buyer has the flexibility of paying differing amounts ranging from settling the entire balance to paying the minimum instalment required to remain current

(Pinson and Jinnet, 2006). It is discussed that the age of a firm indicates how long it has existed and survived and large firms have the ability to obtain external financing from financial institutions. Therefore, both old and large firms are able to grant credit terms to their clients which could mean that there are positive relationships between firm's age and size and accounts receivable. This is demonstrated by research results investigated by Petersen & Rajan (1997) and Bougheas (2009). The only difference is that Garcia-Teruel & Martinez-Solano (2010a) find the relationship between firm age and accounts receivable not significant for some countries of their sample. The different financial situations and systems can influence the analysis results. Literally, a positive relationship for financial debt and negative relation for financial cost with accounts receivable is expected.

Another factor discussed in sales growth. In theory of Niskanen & Niskanen (2006), firms pursuing high growth offer more trade credit and longer due periods over competitors; moreover, in order to increase sales, firms facing sales inadequate take the strategy of granting more trade credit to customers. Petersen & Rajan (1997) discuss whatever form growth rate of sales take, be it good or bad, positive or negative, there is a positive relationship with accounts receivable. However, Garcia-Teruel & Martinez-Solano (2010a) find a negative relationship for positive sales growth and accounts receivable, indicating firms with high sales growth grant less trade credit. While for negative sales growth, it keeps the same positive association with accounts receivable. With regards to the determinant turnover, Garcia-Teruel & Martinez-Solano (2010a) argue that the turnover of sales over current assets, deducting accounts receivable is negatively related to trade credit. This is because firms would like to offer a lot of credit to send across information regarding their high product quality. It is explained that lower turnover indicates higher product quality, long production cycle and credit sales, which offer customers the opportunity to evaluate their product quality.

There is one factor mostly mentioned in literature which is gross profit margin. The findings of Petersen & Rajan (1997) and Garcia-Teruel & Martinez-Solano (2010a) support the theory of more trade credit, offered to customers when suppliers have high profit margin. They explain that higher profit makes suppliers easier to accept lower earnings or even loss on credit terms they provide. Niskanen & Niskanen (2006) and Petersen & Rajan (1997) summarize that financial situation of suppliers is not solely responsible for volumes of trade receivables, but also customers having different demands for trade credit. In addition, the relationship between firms, banks and the location of firms are also considered to influence the amount of accounts receivable. It is clear that good relationship with banks allow firms to have cheaper access to bank financing, therefore, the high probability of granting more credit sales to customers. Though entities located in rural areas have difficulty in obtaining bank credit, and less trade credit is granted as a result. However, this never undermine the validity in the argument the paper seek to depict.

The accounts receivable volume is ascertained by several factors given that trade debtors is a significant element of current assets. A lot of these factors vary depending on business types and the industry, an entity belongs to. If sales are seasonal for instance, the form of sales will override the usual sales trends within the year. This will make the sale of such a business over particular periods highly dependent on accounts receivable (Barad 2010). Every business adopts suitable ways of executing sales be it on cash basis or trade credit extension. There is always a direct correlation between the volume of sales made on credit and the volume of receivables. This makes the existence of credit department an important feature with regards to its function in the determination of the size of receivables (Barad, 2010). Firms may grant trade discounts in cash forms to customers to promote early payments of debts and this really helps to cut the monies tied up in debts. Also, the impact of cash discount offered when accepted by the customers, is immediately felt by the quickening of cash inflows and reduction in the size of accounts receivables. This means, an entity that grants competitive discount are likely to have a relatively smaller size in receivables (Hrishikes, 2002). If the time space allowed to recover debt from costumers is widening, the possibility of increasing sales associated with increases in both its collection costs and bad debts loss may occur. "Thus a firm with long or extended credit periods will tend to have more cash tied up in debts" (Periasamy, 2009). It is the same with entities that have a weak or lax collection policy, will have a lot of needed cash, tied up in debts. The second major factor affecting receivable management has to do with debt collection and monitoring policies since all customers may delay. These delayed payments affect investment in receivables (Ramesh, 1987).

Accounts receivable possesses two unique features. One is the prevalence of the risk of credit while the other has to do with the time value of money. Credit risk is the likely loss that may occur in case the credit customer fail to honour the obligation as and when it falls due (Kalundaet al., 2012). Anytime a sale is made on a credit to a customer, it carries an amount of risk since it is not certain as to whether the customer will pay for them in good time or ever at all. A typical example in Ghana are reports of high non-performing loans in the books of several banks and non-bank financial firms in recent times which attracted the concern of the central bank in Ghana. As it is always reported in the media and several public press release, greater percentages of the loans are non- performing loans and has put the banks in tight fiscal corners. A credit customer may default payment due to a number of reasons and among them are; keen competition, inferior products quality, poor pricing policies, but most importantly, poor management among other reasons. The second common characteristic of account receivable is the time value of money. The value of the money received later for goods supplied decline in value due to factors such as inflation and loss of investments opportunities for the money held by the trade debtors in form of accounts receivable.

When a customer is offered credit sales term, it becomes very necessary to have an established mechanism for managing the receivable created. The function of accounts receivable is self-explanatory from its name and has to do with all elements that come together to ensure receivables are well handled to benefit the firm while it transacts on credit terms and thereby maximizing the value of the firm. The first issue has to do with the decision whether to grant credit at all. (Arnold, 2005). However credit is a global practice though not all businesses but the global market largely thrives on credit.

Accounts receivables are meant to exist for a short while but the decisions that establish them tend to affect the activities of the firm and its finances over a long period. With growing complexity, payment ambiguity and other factors that increase costs in service delivery, managing the accounts receivable process continues to demand more attention, (John, 2007). Every firm that offers credit expects that over 99.9% of all billings will be collected and this involves a cumbersome task. Accounts receivable management primarily aims at increasing the firm's value by ensuring a balance in liquidity, risk and profitability. One very crucial aspect of accounts receivables management is the proper selection of customers to be considered for credits, because the risk of delayed payment or non-payment of the amounts involved (Hrishikes, 2007).

The factors that impact accounts receivable are three and they usually form the focal points in the management of receivables. They are credit extension policy, credit collection policy and receivables investment monitor (Ramesh (1987). In ensuring profitability and robust management of receivables it is required for a firm to have in place well established and dully recognized principles of credit. This include assigning credit extension and collection task to a specified department as well as emphasizing on the credit extension policy. The third principle has to do with ensuring due diligence during credit investigation and analysis before a decision to grant credit or not. The fourth principle deals with the availability of robust collection policies and procedures. With reference to these quotations, the underlining principles for managing account receivables are discussed further below.

**a. Credit Extension Policy**

A credit policy is the blueprint which firms rely on to arrive at decisions as whether to extend credit to a customer or not. The basic aim of the credit policy is to avoid extension of credit to customers who will be unable to pay their debts. Bigger entities usually have a formal credit policy while that of small firms tend to be quite informal with a number of small business owners relying on their instincts.

A good credit policy should seek to bring in and keep good customers with no adverse impact on the cash flow. In addition the policy should be able to drive sales as well. A good credit extension policy has the following important variables as follows

i. Credit standard

ii. Credit Terms

**i. Credit standard**

Credit standard could be explained as the level of financial strength and all other minimum qualities and the characteristics of credit worthiness of a credit applicant required to be considered for credits. Credit standard requirements of a firm could either be liberal or restrictive. With a firm that has lenient credit standards, the minimum conditions to be met by the customers to be considered for credit are quite flexible and relaxed. Firms with a liberal credit standard tend to stimulate sales to attract more customers; increase in sales volumes often comes additional costs such as clerical expenses for investigating additional accounts; It requires huge capital investment in receivables;

Default rates tend to be higher due to the inability of firms to pay their debts and the likeliness of extending credit facility to entities and individuals that are not credit worthy customers; There may be prolonged average collection period and lastly increase in profit as a result of increased sales (Persiamy, 2009).

With restrictive credit standards, the minimum conditions required for credit are heightened by the supply firms. A firm pursuing strict credit standard is likely to face the following: Low sales as few customers are attracted; Less cases of bad and doubtful debt loss; decrease in the amount of working capital requirement to finance receivables; credit standards of the firm are normally high; Low costs of maintaining accounts receivable; Extension of credit facilities to more credit worthy customers; Decrease in profit due to decreased sales (Periasamy, 2009). From the discussions above, it could be deduced that, sales volumes are expected to increase with relaxed standards for trade credits, whereas volumes of sales are likely to decline with stringent standards for credits, The impacts of liberalizing the credit standards on profit may be analyzed based on the correlation between the cost of loosening the credit standards and the profit realized or to be made due to the increase in sales via lenient standards. Here it becomes incumbent on the credit manager and the credit team to determine appropriate credit standard mix for the firm based on diligent cost and benefit analysis accordingly.

**ii. Credit Terms**

Credit terms could be defined as the detailed terms and conditions surrounding credit sale by a firm to its customers. In this reason, it could be deduced that credit terms impact the size of the accounts receivable. Credit period refers to the number of days given to a client to pay for the debt. With the exception of a very few, most customers often prefer longer credit days periods so the extension of payment period is likely to stimulate sales but would adversely affect the cash conversion cycle. Therefore, it locks up much capital in receivables with attending cost (Brigham, Houston 2009). There is always a high probability of default payment which leads to bad debt arising whenever a receivable stays outstanding and unpaid for a longer period. The onus is on the manager and the department in charge to come up with an optimum payment period for credit and the firm should stick to it in order to ascertain the trade-off between cost and profitability. Trade discounts refer to cut in price offered to facilitate early payments by debtors. The discount spells out the exact rate of price cut and the time payment must be made to merit it. A discount of 5/14 net 30 means that 5% cut in price will be allowed for payment made within fourteen days, out of the thirty(30) days credit period (Periasamy, 2009).

Discount comes with two benefits; one has to do with price cuts which tends stimulates sales. The other benefits has to do with the quickening of payments by debtors. This also helps in reducing the cash conversion cycle and really helps the cash flow of entities at the supply end. However, discount has the tendency of reducing prices which culminates in lower revenue unless trade volumes rise much enough to cater for cut in prices in the name of discounts. The costs and benefits in relation to discount must be balanced in establishing the credit policy (Periasamy 2009).

### b. Credit risk analysis and evaluation

The principal objective of receivables management is to ensure minimum or optimum investment in accounts receivable and considerable reduction in bad debt losses. In order to arrive at this achievement, the financial manager has to follow definite principles and procedures to ascertain whether a customer is worthy for credit or not, taking into consideration the credit ceiling to be granted as well as the credit period. Granting credit in trade is a mechanism for promoting sales but it becomes useless when due payment cannot be guaranteed. Analysis of credit determines the customers to be granted credit as well as all the surrounding conditions which is quite easier for existing customers, usually because experience provides considerable information. For new customers credit analysis is obviously a tough exercise (Weaver and Weston, 2008). As alternative sources of funds become costly and unavailable due to increasing lending rates, customers tend to look at trade credit as a source of funding. Customers already owing are likely to request for extension of payment days and perhaps a review of other terms to stretch out payments for relief. New customers tend to request and negotiate for credit account and terms. Here the onus behooves on firms at the supply end especially to exercise caution in credit decisions. Every credit transaction should initially be considered a potential bad or doubtful debt. It is prudent in taking steps to ascertain the actual reasons for which customers request for credits even by asking the customer one-on-one; visit the premise if possible and find out from the owners and managers whether the company is in difficulty or not.

### c. Financial review

It is helpful to focus on the following; whether the firm is increasingly piling up stock and are unable to sell it. What is the cash position of the firm in question, negative or positive? Has the firm utilized all borrowing space, do they have a good working capital strength to handle short-term debts even though they may be recording losses? It is prudent also to assess the recent trade history in terms of credit volumes and payment patterns; assessing the promptness of the latest trade payments, can paint a clearer picture of the finances of the entity. Considering the entire picture might grant you a better view as if it is being considered for acquisition. Make objective considerations and consider other key elements that are subjective. For instance analyzing the relationship of managers and subordinates. It is very prudent and important to ascertain the firm's commitment and efforts in re-organizing things for a positive turn around to merit suppliers and customers as well. There might even be the need to visit the firm and engage management facial conversation to discover the activities and inputs being made by the firm to improve the challenging situation of the firm. The absence of relevant and significant steps to revive and improve cash flow and profitability to deal with debt payment issues and general health of the firm are enough signs to conclude the inability of the firms to deal with its challenges. And this makes it not worth risking. The onus is on management of a firm to determine the distinction between customer losses due to non-granting of credit and revenue losses as a result of non-payment of debts by customers. The benefits of customer loyalty in the long run should come into play in a firm's decision to support the company through challenging times or not. It is appropriate to find avenues to protect sales when the firm finally decides to grant credit as appropriate to keep and work with it valuable customers. It is appropriate to review the credit worthiness of customers very important to the firm from time to time and not dwell on assumptions on customers' reliable historic performance since situations keep on changing.

### d. Credit collection policy

A credit collection policy could be explained, as a formally organized elements and processes that guides the collection of overdue and delinquent debts (Megginson and Scott 2008). Credit collection policy manual, has in it, the procedures used to collect past due accounts depicting the level of firmness exhibited through the process. In times of delay or refusal to honour a payment obligation, the firm might write a series of polite letters or send personnel periodically to customers as a means to facilitate payment. Other firms may turn overdue and delinquent debts immediately to factor agency to ensure quick and easy collection (Brigham et al., 2012). It has become increasingly difficult for firms in recent times to excessively write-off bad and doubtful debts. Lack of operating cash to a large extent led to the collapse of many U.S “dot-coms” in the early 2000’s. Weak and improper management of cash flow still leads as the paramount cause of the fall of many entities. A firm can radically improve its cash flow by cutting the days credit stays outstanding through customer sensitization and motivation. These require regular attention and follow up. Firms need to be rigid but devoid of excessive pressure which may culminate into customer loss. Balance must be established between the costs and benefits of varying collection strategies (Brigham et al., 2009). A company has to determine the tenets of its collection policy and specify how to put it to use. According to Megginson and Scott (2008), it has always been the case that the standards and terms of credit together with the approach are functions of the industry type and the business surroundings. It is incumbent on firms to issue and or deliver invoices immediately and constantly seek ways to enhance invoicing accuracy with time, since there is a direct relationship between invoicing times and payment periods. The earlier delivery of accurate invoice tend to influence the customer to pay earlier; grant financial motivation to induce customers to agree to pay invoices electronically; initiate collection moves earlier than due dates on customers with late paying records. Follow up on invoices not provided upfront to ensure they are in possession of clients and are satisfied with the details as well, deal with concerns promptly and in cases where a customer indicates a problem with part or the whole invoice, request for partial payments while addressing the consent immediately.

Customers who are identified with overdue debts should be notified immediately and frequently by personal visits, delinquency letter or with phone calls. Regular follow up on delinquent accounts enhances the chances of retrieving them. Many customers tend to prioritize payment based on the amount of anticipated pressure. It is good to send a courteous and friendly reminder to customers who are a few days late with their payment. A more serious toned letter may follow as the debts stays outstanding for longer periods (Kent et al., 2005). The firm has to call on the delinquent customer to discuss payment and may as well agree to revise payment schedules when customers have genuine and reasonable excuses. Penalize delinquent accounts, for it is one effective way of ensuring payments on time. This can be done by taking off discounts and or charging interest on overdue balances (Richard 2008). In situations where transaction was conducted with sureties or guarantees, it is just a matter of utilizing the options for obtaining payment (Megginson and Scott 2008). In the cases where all efforts geared towards debt collection prove futile, the firm can opt to engage a factoring agency to do so. Though this is not the optimal best practice in handling clients, it guarantees payments but at a cost; usually a percentage of the amounts involved with no demand upfront cash outlay. If the amount involved has been captured as bad debt already, the firm is at an economic advantage. The firm has the option also to institute a legal action against the delinquent customer and seek legal judgment against the debtor. It is advisable to opt for this, if the cash sums involved are huge since it comes at a substantial cost. Furthermore, legal action may push the indebted customer into bankruptcy, with no guarantee of payment soon. A cost-benefit analysis would be advisable to be made at each stage of debt collection actions to compare the cost of further collection actions against the cost of just writing off the account as a bad debt.

### e. Credit control and monitoring

The relevance and vested authority in the credit department of a firm determines the level of efficiency in accounts receivable management. This emanates right from the formulation and execution of credit and collection policies. Since credit business is a major function of finance, it will be sensible and prudent to make the chief finance officer if any or the officer at the helm of affairs in terms of finance to be responsible and be in constant touch with the credit department in all their dealings. All other departments and individuals responsible for solvency and cash flow of the firm should be pulled together when it comes to the issue of credit, since it has a relationship with the entity's solvency. Curtis, (1959) contends that sales department at all times should be pressed to ensure that value for money is realized out of every sales transaction before it is closed. In view of this, it is reasonable and advisable for the sales and finance departments to merge efforts to administer sales, especially when credits come into play.

A written credit policy gives relevance to the existence of credit department as a unique entity (Miler, 2002). It is therefore important for an organization to set up an autonomous credit department equipped with modern technology and run by personnel qualified in credit management who are capable of addressing the needs in various inter-related functions in a professional manner. This helps to ensure adequate coordination that will lead to synergy among the three departments aforementioned. The basic responsibilities of a credit department as portrayed by several scholars include the following: (i) Institution of credit terms and the ceiling. (ii) Assessing credit risk from time to time and teaming with the marketing department in credit transactions. (iii) Analyzing credit risk and ensuring compliance to credit terms by customers by means of monitoring and control. (iv)Ensuring customer records update and accuracy to avoid trade disputes and doubts. (v)Collection of payment in due time and ensuring business continues especially with loyal customers. Firms offer credit to boost sales and this is one of the several motives behind credit sales. It is very important to have a credit department especially with firms who cannot avoid the offer of credit by virtue of the industry, size of entity, business type, and the bargaining power of customers and among others, to do the necessary workout pertaining to credit business. Any firm that pursues credit sales as a trade policy must have in place a robust control system for processing credit sales and cash collections. Credit monitoring involves regular revision of the credit policy to ensure customers adhere to the terms of credit. Companies must monitor credit on both an individual and on aggregate basis. Monitoring helps to ascertain whether each customer is paying on time and if the customer is within its credit limits as well. Companies can encounter challenges at any point in time and therefore, customer appraisal and screening should not be one shot but a regular and continuous activity to avoid excessive credit to economically troubled entities. The business climate in recent times has been very unpredictable and unstable to the extent that some businesses that were robust in finance and operations not long ago, now battling to survive the turbulence. A firm should frequently conduct reviews on credit worthiness of clients to avoid or drastically reduce bad and doubtful debt. Businesses Suppliers should not thrive on the assumption that their credit customers are worthy because of their external perception of healthy status, unless scientifically and graphically proven with facts and figures. Suppliers should review the credit worthiness of all its important customers. Aggregate monitoring of credit is important because it projects and depicts clearly the indicators that define the quality of the firm’s accounts receivables. Delayed and over-extended debt payment are costly, since it locks up an entity’s investments in credit and increases the average period for debt collection. Changes in the volumes of accounts receivable over time could impact the company’s cash flow and liquidity.

**f. Techniques for monitoring quality of accounts receivable**

There are three main techniques considered by this paper for monitoring the quality of accounts receivables and they are: (i) Average-collection-period, (ii) Aging of accounts receivables and (iii) Payment pattern monitoring. These techniques are further discussed below.

**(i) Average Collection Period**

The Average Collection Period (ACP) represents the average number of days' accrued debt, resulting from sales remains outstanding. Average collection period has two components, according to Graham, Scott (2010); the first components is when time sales is realized to the period the customer initiates payment. The second component deals with the receipt, processing and collection of the payment once initiated by the customer. On the assumption that the receipt, processing and collection time is constant, then the Average Collection Period project to the firm, the number of days (on average) it takes customers to pay their debts (Graham et al, 2010). The estimated average collection period may be used by the firm for trend analysis to compare the collection period over time. Secondly, it may be used to compare with the set target by the firm as well as comparing with the industry average. It is mathematically represented as shown below;

$$ACP = \frac{\text{Average accounts receivable x 365}}{\text{Credit sales}}$$

**(ii) Accounts Receivable Aging Schedule**

This method is used to monitor accounts receivable by segmenting receivables by their ages, thus the number of days outstanding using an aging schedule. It provides useful information about the state of a firm's accounts receivable. Table 2.1 below provides an example of an aging schedule.

**Table 2.0: Aging schedule for Accounts Receivable.**

| Age of account | Receivable amount ($) | Percentage of Total Value |
|---|---|---|
| 0 – 10 days | 220,000 | 44.0 |
| 11 – 30 days | 166,500 | 32.002 |
| 31 – 60 days | 97,400 | 19.48 |
| 61 – 90 days | 22,500 | 4.50 |
| Beyond 90 days | 9,000 | 0.017 |
| Total Value | 500,000 | 100.0 |

*Senzu & Ndebugri (2017)*

Table 2.0 depicts that 76.02% of the firm's accounts receivable are 30 days or less old. If the firm offers 30 days credit sales, then 23.98% of the receivables are past due. The firm must figure out why that much of its outstanding receivables are past due; are customers experiencing temporally financial difficulties? Are customers reluctant in paying due to issues with product quality? Which customers will eventually pay and which receivables should be considered as bad and doubtful debt and even to be written off as bad debt expense.

**(iii) Payment Pattern Technique**

Payment pattern is the trends customers usually follow in settling their debts. It is expressed as the percentage of total collection of sales made within the month. One approach to determine the payment pattern is to analyze the company's sales and resulting collections on a monthly basis. Thus, for each month's sales, the firm computes the amount collected within the period and that of the subsequent months as well. Every business has a pattern in which its receivables are paid, if changes occur in the payment pattern, the firm should consider reviewing its credit policies. By tracking these patterns over a period of time, the company can determine the average pattern of its collection using either spread sheet or regression analysis. For most companies, these patterns tend to be fairly stable over time even as sales volumes fluctuates (Megginson, 2010). Pricing administration, order processing and invoicing accuracy is of unique importance in management success. There are some basic practices that enhance pricing and invoicing accuracy. They include: Keeping the pricing policies clear and devoid of ambiguity; complex pricing structure complicates receivable management; for example, a large firm selling numerous different products whose prices change sporadically. If this firm maintains individual cost plus pricing schedule for each of its many customers, each time product price changes, it in a way requires change in prices among individual customers' price schedules. This will amount to a very difficult price administration challenge (Salek, 2005). However maintaining a simple pricing scheme may be difficult if the competitor offer complicated pricing incentives. Incorrect invoices resulting from price discrepancies will cause customer to refuse to pay, frequently demanding corrected invoices. This will increase day sales outstanding and delinquency.

Before an order can be routed to fulfilment, the team responsible must ensure it meets the conditions of an acceptable order which include key components such as; price, freight terms (which party pays freight changes), payment terms, delivery date, clear description of the product ordered, quantities of product or service ordered and a purchase order number. The purchase order must be filled correctly and promptly, it should also be billed accurately. The importance of invoice in sales transaction be it cash or credit cannot be under estimated. However, invoicing accuracy is one very important element that impacts the efficiency and effectiveness of managing receivables. Accuracy in invoicing seek to: cut delinquency in receivables and improve cash flow; reduce losses resulting from bad and doubtful debts; cut revenue administration cost; enhance performance by reducing disputed cases drastically. Speed and accuracy are the two major objectives of invoicing. Speed and accuracy simply means ensuring exactness of invoice details and delivering invoice on time without any delays. Presentation of invoices could be accelerated using electronic presentation. Many firms begin the countdown based on payment dates on invoice, therefore it is utmost important to ensure timely invoicing to maximize receivable asset turnover. Inaccuracies in invoicing could lead to disputes that could lead to delayed payment. It is therefore very important to ensure accuracy as we focus on speed as a blend of the two element to yield enormous benefits to firms.

Numerous research works have been undertaken on working capital management and a few specifically on accounts receivable management. In a research on the Accounts receivable, Strategies, Experiences and Intentions, the findings were that lack of efficiency within contemporary accounts receivable departments is highly prevalent as; cheques are still almost twice as common as electronic forms of payments; the Average Days Sales Outstanding (DSO) for enterprises surveyed exceed 45 days and 87% take more than a day to clear payment through their accounts receivable ledger and 45% of invoices are created manually (Andrew, 2008). A research undertaken on the effects of practices of managing working capital on financial performance of small scale entities in Kisii South District, Kenya according to R.N. Nyabwanga (2012) indicated that only 29% of all small scale firms establish credit policies for their credit customers. The research further brought to light that the non-availability of robust credit policy led to the minimal reliance on credit sales.

In a study on policies for managing accounts receivable and accounts payable, the researcher found that the motivation to adopt credit as a way of discriminating prices and internal source of funding impacted accounts receivable greatly. The study also observed that a firm's size to a large extent affects the accounts receivable levels tolerated (Mubashir, 2012). In a research on the impact of working capital on the profitability of listed manufacturing firms in Ghana, it came to the light that the working capital cycle is adversely related to a firm's profitability, which is relevant and statistically significant. Also, the findings revealed that accounts receivable collection period is negatively correlated with profitability (Thomas, 2013). In another research conducted in Kenya on factors that affect the management of receivable among Agro-manufacturing companies, it is concluded that managing accounts receivable is a complex task that requires both marketing and finance departments as a teams to keenly collaborate and handle for optimum results though it is a peculiar function of the finance office (Onami, 2008). The study on the impacts of managing receivables on the finances of Technical, Industrial, Vocational, and Entrepreneurship Training (TIVET) institutions in Kenya also concluded that a positive co-relation exist between receivable management and the financial performance of TIVET institutions. The study also established that a majority of the institutions (77%) had adopted formal receivables management procedures (Nyaga, 2011). Most of the studies undertaken, focus a single industry or sector which means that the findings may not be readily generalized to other industries or sectors of the economy. Onami (2008) contends that further studies need to be carried out on other sectors of the economy to determine their similarity to his study, since the scope of his study was limited only to agro-manufacturing companies. It was therefore critical that our study would be carried out in a cross-section of several industries to establish whether the principles and practice of accounts receivable management are firm-specific or industry-specific. Several studies have been carried out on working capital management but with a very shallow or least emphasis on the asset of accounts receivable; thus Average Collection Period, which is projected as the basis for the accounts receivable management. It will be prudent and appropriate to undertake a research work with much emphasis on the key components that impact the account receivable asset as a function of working capital. This paper attempt to fill some of the gap as suggested by the already existing works since the firms considered for studies are of diverse industrial and sectorial backgrounds.

## D. METHODOLOGY & EMPIRICISM

The study adopted three key steps being preparation, fieldwork and analysis for the design. One Hundred and Twenty (120) firms based in Ghana and across various sectors of Industries were considered for this studies. The study used descriptive research and survey designs in aiding the researcher in the process of data collection to the very end of interpretation of the data. The study sought to examine the determinants of trade credit and the principles adopted by selected firms in Ghana in the pursuit of trade credit as a business strategy and managing their accounts receivable effectively. The design type was considered to be appropriate as Best and Khan (1993) maintain that the use of the survey method enables to obtain the opinions of a representative sample on an on-going phenomenon. Questionnaire for collecting primary information was put together and the respondents were well informed on the objective of the study and then administered to them. According to Agyedu et al (1999) population is the complete set of persons (subjects), items or actions having the same observable features in which the researcher has interest. The population under study, was selected firms located and operating within Ghana. The target population was made up of one hundred and twenty (120) companies from various sector of industries, in the books of Registrar General Department of Ghana**.** A census was carried on one hundred and twenty (120) firms randomly selected across the various industrial sectors.

*Table D1. Classification of selected firms for the study*

| ***Category of firm*** | ***Investment Value*** | ***Population*** |
|---|---|---|
| *Large* | Ghc.1,000,000 and above | 7 |
| *Medium* | Ghc.501,000 to Ghc999,000 | 28 |
| *Small* | Ghc.500,000 and less(below) | 85 |
| ***TOTAL*** | | 120 |

*Senzu (2017) developed data*

The data collected for the research were from both primary and secondary source but the focus was more on the primary data. The collection was done using semi-structured and structured questionnaires in a combinative approach in administering to the staffs of the companies defined in the office of accounting department, Sales department, office of Financial Controller and credit management department if there is any among the selected firms for the study, to collect both qualitative and quantitative information. The drop-off/pick-up (DOPU) approach was adopted in this study. It was helpful because the respondents had ample time to complete the questionnaires and also granted some space to revise the questionnaires where needed before picking for the response to be completed. Where necessary, personal interviews and documentary analysis were conducted to enhance validity.

Data collected from the primary and secondary sources were analyzed by the approach of descriptive statistics where measures of central tendency such as mean, mode and weighted averages were computed to give result, which was then compared with the findings from literature review. Charts, graphs and tables were used to present the findings. The secondary source data gathered were examined very well to ensure it was suitable, reliable, adequate and accurate for the purpose. This census study was targeted on one hundred and twenty (120) randomly selected firms located in Ghana, which three hundred (300) questionnaires were administered, with two hundred and fifty response received. This statistical depict that, the response rate was 83.3% which is significant enough in giving reliable findings for this study. An above 50% response rate according to McBurney (2001), is acceptable for research work because response rate that was below 50% could adversely affect the outcome of this kind of studies.

Q1. To examine the objective of credit policy design by firms, table X1 was presented as below

*Table X 1. Credit Policy Objective*

| ***Objectives*** | **Frequency** | **Respondent Rate** |
|---|---|---|
| *Elimination of bad customers* | 150 | 60% |
| *Minimize credit cost* | 20 | 8% |
| *To gain competitive edge* | 70 | 28% |
| *Earn Interest on overdue account* | 10 | 4% |

*Senzu (2017). Field Report*

According to the studies, elimination of bad customers was rated as the most important objective for having a credit policy among the other factors with respondent rate at 60%

Q2. To ascertain the relevance of factors to consider in credit appraisal, for the purpose of credit risk analysis, it was required of respondents to rate firm credit appraisal on the bases of the following scaling "1"for (Very important), "2"for (Important), "3" for (Necessary), "4" for (Not important). Among the listed requirement the responses were tabled in X2 below

*Table X 2. Credit Appraisal Requirement*

| **Credit Appraisal Requirement** | **Frequency** | **Scaling** | **Respondent Rate** |
|---|---|---|---|
| **Character** | 250 | 1 | 1.0 |
| **Capacity** | 200 | 1 | 0.80 |
| **Capital** | 245 | 1 | 0.98 |
| **Collateral** | 198 | 2 | 0.79 |
| **Condition** | 197 | 2 | 0.19 |

*Senzu (2017) Field Report*

According to the data, firms rate 'character' as the highest requirement for credit appraisal, followed by 'Capital' of 0.98 as the second rated variable in average, then 'capacity' of 0.80 as the third rated variable for customer credit appraisal.

Q3. Respondent were required to indicate whether their firms vary it credit terms in certain circumstances. The feedback was tabled below as Table X3

*Table X3. Variation of Credit Terms*

| Target | F1- (Yes) | Response Rate | F2- (No) | Response Rate |
|---|---|---|---|---|
| **Particular Customer** | 150 | 60% | 100 | 40% |
| **Particular Product** | 225 | 90% | 25 | 10% |
| **Particular Season** | 231 | 92.4% | 19 | 7.6% |

*Senzu (2017) Field Report*

Analyzing from the data records, it statistically depict that, about 92.4% which is equivalent to an average of 0.92 of respondent rate accepting that, their firms vary it credit terms on seasonal conditions, 90% also responded that, their firms varies it credit terms based on a particular product it seek to have a competitive advantage and market penetration and finally 60% of respondent accepted that, their firms varies credit terms for particular customers.

Q.4 Respondent were examined on how their firm deals with an overdue account with customers. And their response were tables as X4 below

*Table X4. Strategies to manage overdue account*

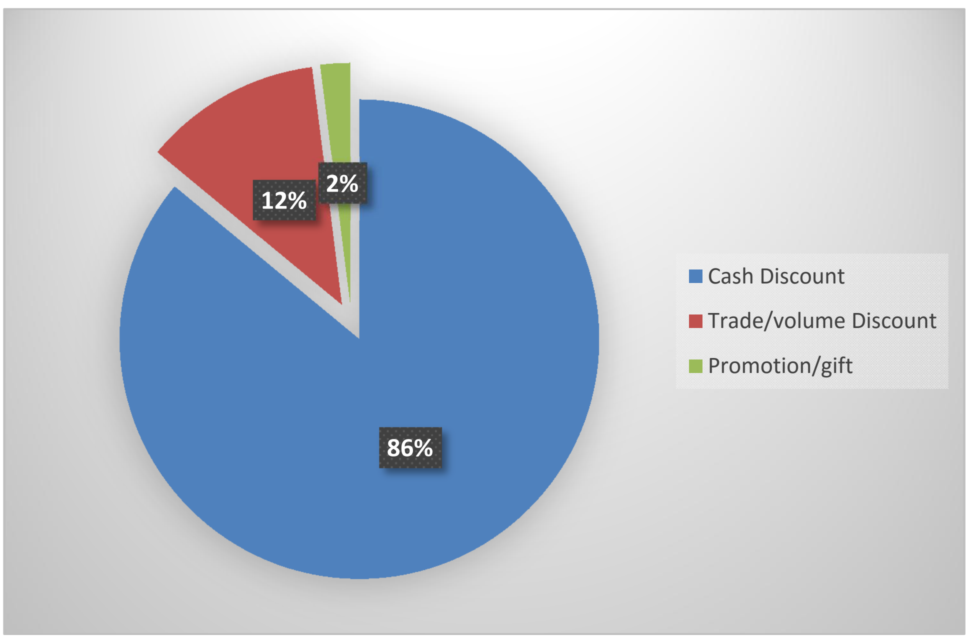
| ***Strategies*** | **Frequency** | **Response rate** |
|---|---|---|
| *Sending Reminder Note* | 110 | 44% |
| *Making Telephone Calls* | 19 | 7.6% |
| *Use of Debt Collection Agency* | 21 | 8.4% |
| *Establish Legal proceedings* | 17 | 6.8% |
| *Allow customer to pay at their convenience* | 5 | 2.0% |
| *Stop sales and put account on hold* | 20 | 8.0% |
| *Charge Interest on overdue debt* | 47 | 18.8% |
| *Factor Accounts* | 8 | 3.2% |
| *Write off accounts as bad debt* | 3 | 1.2% |

*Senzu (2017) Field Report*

The study found out that, firms relied on ‘sending reminding note’ to customers as a best strategy on overdue account which had 44% respondent rate to attest, then followed with the use of ‘Interest Charging’ pegged on 18.8%,  finally ‘debt collection agency’ as the third reliable approach to overdue account on customers with respondent rate at 8.4%.

Q5. The studies further investigated into the incentives that encourages customers to make prompt payment, which was captured in a pie chart diagram below as Fig. X5

*Fig. X5 Prompt payment Incentive*

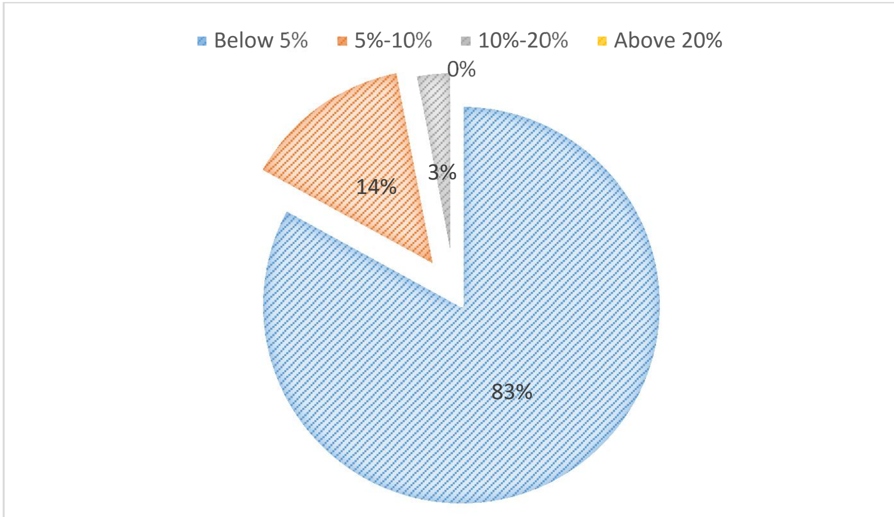



*Senzu (2017). Data Report*

According to the chart, cash discount has been one of the most effective prompt payment mechanism for customers with 215 respondent representing 86% of the total respondent arguing that, it is the most reliable approach used by their firms for expected prompt payment. It was further discovered that trade discount and Cash discount are used simultaneously by some firms to promote large sales and prompt payment

Q6. This study, examine the extent a firm will write off a bad debts and graphically present the findings in a Pie-Chart below as Fig. X6

*Fig X6. Grades of Bad Debts*

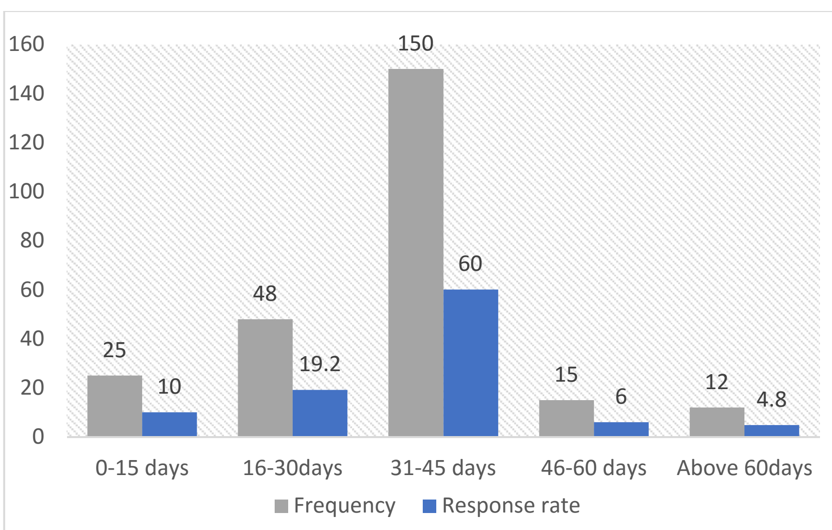



*Senzu (2017) Data report*

In the average 83% representing 208 respondents indicated their firms write of debts less than 5% owned by their customers at most times, while an average of 14% representing 35 respondent indicated that their firms write of debts within 5-10% at most for their cherish able customers. However the study discovered that, it was very impossible for any of the firms to write off debt of 20% and over.

Q7. Analyzing the average collection period of accounts receivable under study firms, for the period of 4yrs. The discoveries is graphically presented below as Fig. X7

*Fig. X7. Average collection rate period from 2013-2016*

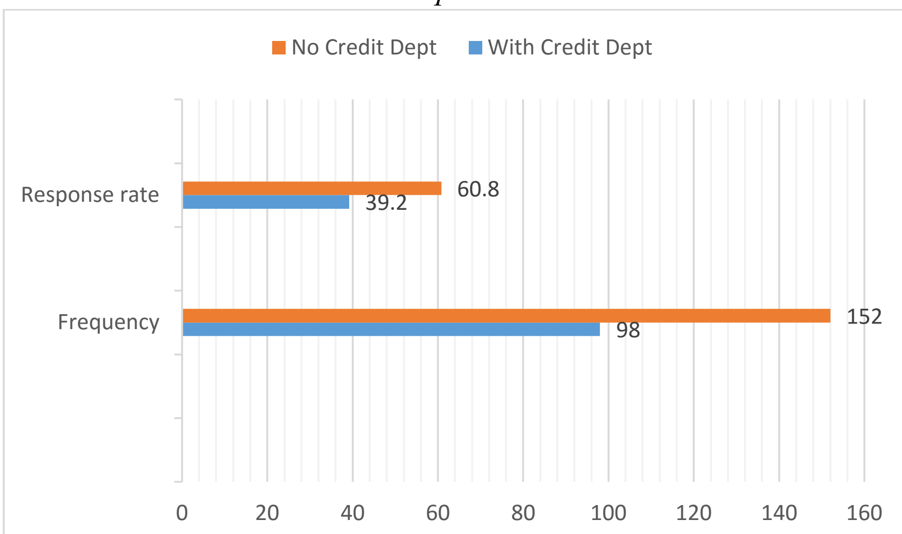



*Senzu(2017) Data Report*

The Bar chart evidentially depict that majority of the firms had an average collection period between 31-45 days with 150 respondent attesting to this fact, which was seconded by the collection period known to be within 16-30 days having an average of 19.2% of respondent confirming.

Q8. Examining whether firms has autonomous credit control department for effective monitoring. Which the responses were graphically presented as Fig. X8

*Fig X8. Autonomous credit Control Department*



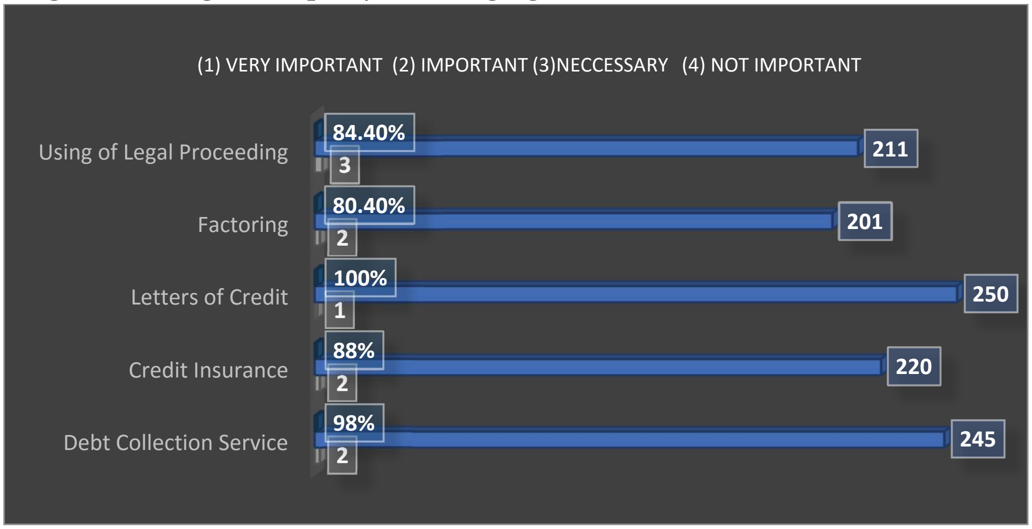

*Senzu (2017) Data Report*

The data report justified that, there are majority of the firms that has no credit control department with a respondent rate of 60.8% in average. Finally it was discovered that firms with autonomous credit departments had shorter average collection period and low cases of bad debt write offs.

Q9. Respondents were required to rate the various techniques for managing credit risk exposure in their order of the following scaling.

1- For (Very important), 2- for (important) 3- for (necessary) and 4-for (not important) and findings was graphically presented below as Fig. X9

*Fig X9. Rating techniques for managing credit risk*

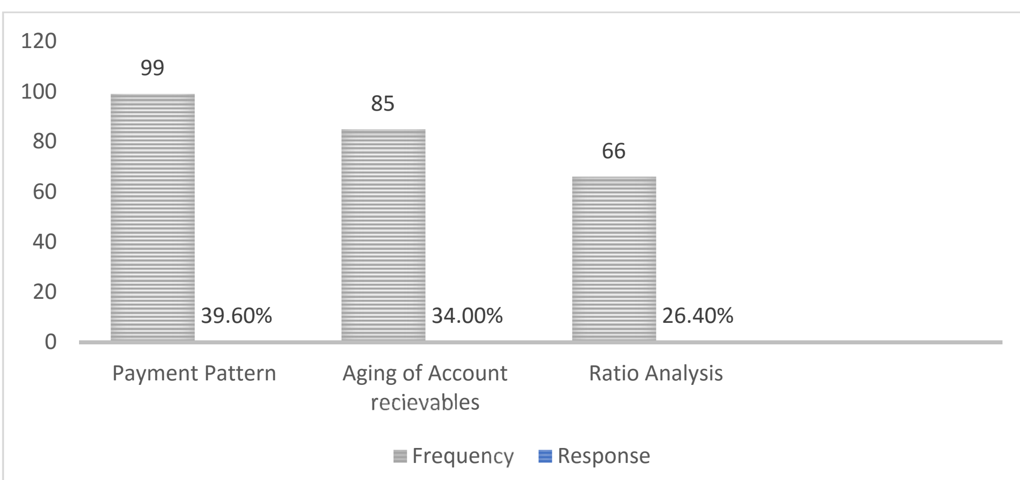



*Senzu (2017) Data Report*

The study found out that in average, letters of credit is very important technique for managing credit risk exposure. Then finally the Institutional legal proceedings was the least important technique adopted against defaulters per the graphical presentation above.

Q10. Interviewee were examine on the best account receivable monitor adopted by their corresponding firms and the findings was graphically presented below as Fig X10.

*Fig X10 Account receivable monitor*

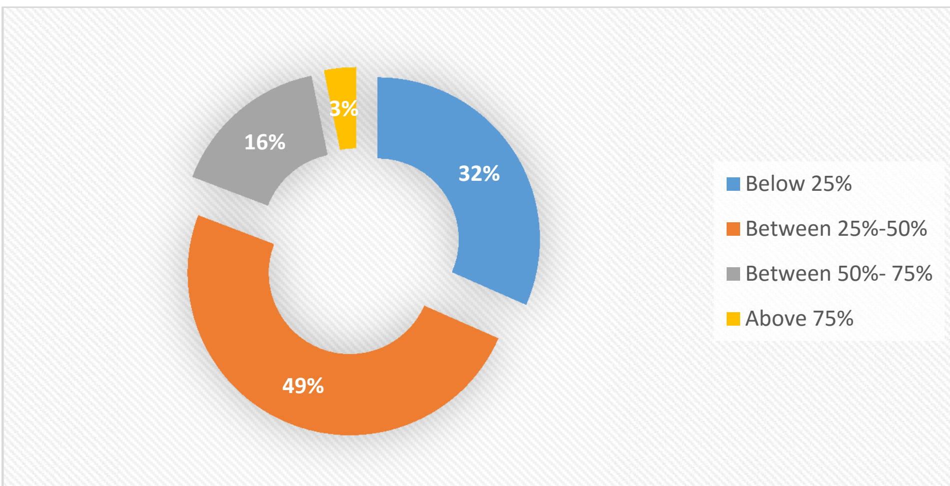



*Senzu(2017) Data Report*

39.60% of the respondents agreed that their firms used payment pattern monitoring, which indicates the adoption of regular payment schedules at which customers pay their debts. 34.0% of the respondents confirm that their firms use aging of accounts receivable where the accounts receivables are classified by the number of days outstanding. Finally 26.40% indicated that they used ratio analysis. The mostly used ratios were rate of debtor's turnover ratio and average collection period.

Q11. The study went ahead to investigate the value of accounts receivable and it total effect on current assets of firms. Which the findings was graphically computed below as Fig.X11.

Fig X11. Value of accounts receivable on total current assets




*Senzu (2017) Data report*

Averagely about 49.2% of the respondent indicated that, their firm has about 25%-50% of the current assets in debts, which was noted to be the home of majority of the firms into account receivable programs. Then 31.6% representing 79 respondent, had about 50%-70% of their current assets owned by customers of their firm which is noted to be the second largest community in account receivable programs across industrial sectors as it is graphically projected above.

Q12. To investigate in invoicing system use by the firms, respondent were examined and the findings is tabled below as X12.

*Table X12. Examining the Invoice system used by firms*

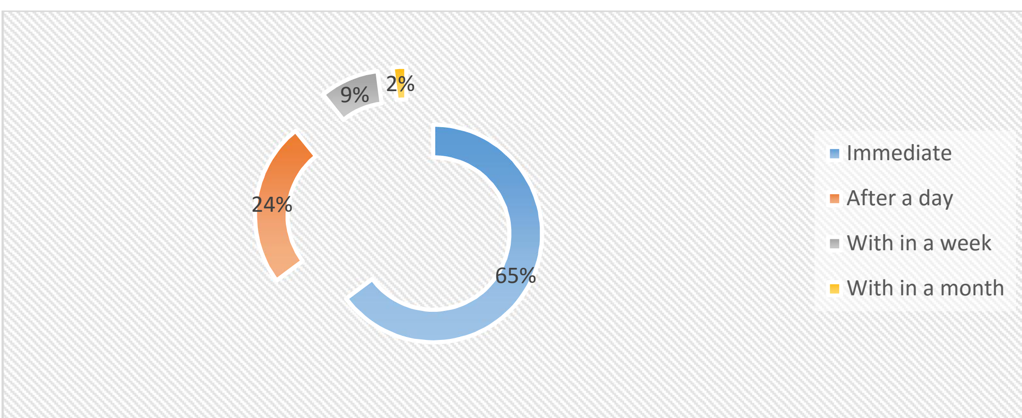
| *System of Invoice* | *Frequency* | *Rate of Response* |
|---|---|---|
| *Manual* | 150 | 60% |
| *Automated* | 100 | 40% |
| | | |

*Senzu (2017) Field Report*

Invoicing system influence the accuracy and the speed of processing invoice, relatively in large extent. It was observed that, about 60% of the firms used the manual invoice system, while 40% used the automated system. It was further discovered by the study that the firms with automated invoicing system had fewer cases of disputes regarding invoice unlike manual. And further noted that, if invoice management was guided with high level of authenticity and credibility by the internal staffs of the firms, disputes regarding invoice will diminish.

Q12b. The study went further to examine and analyze, the period taken by firms to present invoice to their customers. Which the data was computed graphically below as Fig 12b-X

*Fig 12b-X: Timing of Invoice after sales transaction*

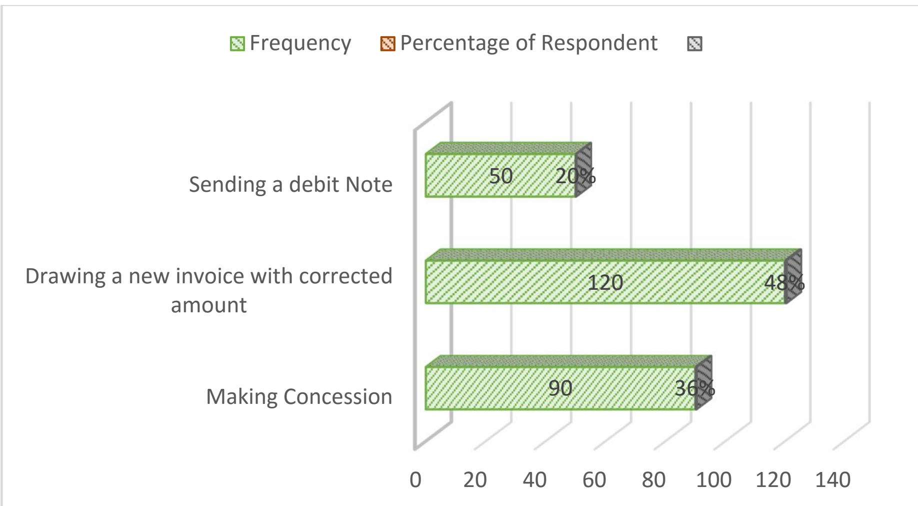



*Senzu (2017) Data Report*

The time of Invoicing plays a major critical role in maximizing the accounts receivables turnover. 64.8% of the respondents indicated that, their firms invoice customers immediately after sales transactions is made on delivery goods. While 24.4% of the respondent accepted that their firm invoiced their customers after a day of goods delivery, which was noted to be the second most popular practices among firm on Account receivables across Industrial sectors in Ghana, as graphically depicted above.

Q12c. Finally respondent were asked what were their mechanism used by their firms to resolve disputed invoice. The discoveries were graphically projected below as Fig.12c-X

*Fig.12c-X Technique in resolving disputed Invoice*




*Senzu (2017) Data Report*

It was discovered that, the manner in which a disputed invoice is handled determines how fast payment was received from the client. An average of 0.48 respondent indicated that, they only draw new invoices with corrected amount to replace the old version. While 36% of the respondent reported that their firm make concession on the disputed invoice and simple receive the lesser payment. Finally an average of 0.2 of the respondents indicate that their firm send a debit note to the customer in correcting the section of the invoice in dispute.

## E. FINDINGS

The results from the study revealed several factors that affect the management of accounts receivable.

1. Most of the firms lack a formal credit policy which is inconsistent in credit risk analysis
2. Absence of clear credit policy objectives
3. Improper variation of credit terms which pose a great challenge to the effective management of accounts receivables
4. Erratic fluctuation in the average collection period throughout the years the research study examined, which also present the significant values of bad debts written off over the same period.
5. Majority of the firms did not have credit control functions
6. Firms with autonomous credit control department recorded relatively shorter average collection periods and few bad debt were written off unlike the vice versa
7. Credit monitoring was poor in those firms without autonomous credit control departments
8. Averagely majority of the firms were still using the manual invoicing system, which goes to explain the existence of several delayed payments by customers as evidenced by the long average collection period and high frequency of disputed invoices.

## F. CONCLUSION

The study concludes that, there exists some practices guiding extension of credit to customers, however there is a weak implementations as evidenced by lack of formal credit extension policy, delayed or non-revised policy manual, inconsistent to credit risk analysis, which pose a significant challenge to effective management of accounts receivables. The study further concludes that, there exist no robust strategy to check and pursue overdue debts owed to the firms or the availability of a weak and unreliable strategies which militates against effective management of accounts receivables. The study further ends that most supply firms are confronted with numerous challenges in managing their accounts receivables as a result of the lack of firm and adequate mechanisms to monitor and control credit procedures. Which finally concludes that, supplying firms require accurate invoicing procedures that come on time. They are key elements in the effective management of accounts receivable that would ensure a reduction in bad debts and improved cash flow for the firms.

## G. RECOMMENDATIONS

i. Analyzing from the findings of the study, the research team recommend the following: The firms should generate a credit extension policy which should be adhered to always and revised periodically to deal with shortcomings realized from time to time and also to see to it that it addresses current economic conditions. The policy should have the potential and the tendency to attract new customers as well as protect the firm from potential bad customers. Firms should have in place a robust policy that clearly spells out the detailed principles and practices regarding credit collection to be used by the firms in administering trade credits and to cater for overdue debts. The policy should contain varying debt collection strategies to improve cash flow and drastically reduce average collection period, a means to cut bad debt losses.

ii. It is very important that management approves the establishment of a robust autonomous credit department that will allow the institution of a comprehensive set of operating policies and procedures so as to drastically reduce bad debt losses and improve liquidity through shortened average collection periods. Credit monitoring should be enhanced to assess the quality of accounts receivables to reduce over-investment in accounts receivable as it stands currently in the issue of numerous number of the firms under studies. Firms should automate their invoicing systems to cut down on the time taken to present invoices to customers. This will reduce the average collection period. Automated invoicing will also seek to address the errors in invoices, thus reducing the number of those disputed.

iii. The study was limited to determinants of trade credit and effective accounts receivable management. Which we believe further studies could be done on other elements of managing working capital for instance, managing cash flow and accounts payable management and as well as managing inventory.

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