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IMPLEMENTING ENTERPRISE RESOURCE PLANNING IN HIRE PURCHASE ORGANISATIONS: ANTECEDENTS, CHALLENGES AND CRITICAL SUCCESS FACTORS

By

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MASTER OF SCIENCE

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DECLARATION

I hereby declare that this submission is my own work towards the Master of Science in Project Management, and that, to the best of my knowledge, it contains no material previously published by another person nor material which has been accepted for the award of any another degree of the university, except where due acknowledgement has been made in the text.

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ABSTRACT

This study examined the implementation of enterprise resource planning in hire purchase organisations assessing the antecedents, challenges and critical success factors. One of the objectives of the study was to establish the challenges of the implementation of ERP systems in organisations. The study was grounded on the positivist research philosophy, and the case study research strategy was adopted. The deductive research approach was employed which necessitated the use of quantitative research design. The population of the study included 58 staff of Credit Mall Ltd. from which only 50 respondents were included as the remaining eight were drivers. A research questionnaire was used to collect the data which was analysed using Statistical Package for the Social Sciences. The study revealed that Oracle is the enterprise resource planning system implemented in Credit Mall Ltd. It also revealed that the goal of the implementation of the system was to improve accuracy of financial and management information, and improve information flow in the organisation by linking sales to accounts, and other departments which were before then disjoint. The study concludes that the challenges of the implementation enterprise resource planning systems in organisations includes lack of organizational leadership and commitment from top management, unavailability of skilled resources, customization and confidentiality problems, internal change management issues and resistance to change, poor system selection, inadequate end-user training, ineffective communication, and expectations from the system and cost benefit ideal. The study recommends that the management of organisations need to demonstrate a high level of commitment to the implementation of enterprise resource planning systems in terms of budget, time, and personnel to ensure that the system is implemented successfully

Keywords: Implementing Enterprise, Resource Planning, Purchase Organisations, Antecedents, Challenges and Critical Success Factors

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DEDICATION

I dedicate this work to my daughter Kuukua Addobea Appiah

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CHAPTER ONE

GENERAL INTRODUCTION

1.1 INTRODUCTION

This chapter presents a general overview of the study. The chapter covers the background to study, statement of the problem, aim and objectives, and research questions. In addition, the chapter covers significance/justification of the study, scope of study, and organization of the study.

1.2 BACKGROUND TO STUDY

The present global business environment is characterized by an enormous and lasting competition in addition to increasing customer demand for swift and multifaceted solutions (Jalil et al, 2016). From this perspective, controlling the processes and improving them on a continuously become requirements for organisational success (Rajan & Baral, 2015). For this reason, several businesses across the globe including hire purchase businesses are attempting to overhaul their business processes using software packages, and information systems; and several of them have chosen integrated systems management (enterprise resource planning) as a foundation for the integration of their business activities (Rajan & Baral, 2015).

To this end, the application of information and communication technology systems like enterprise resource planning appears to be an enormous contribution to the intense modifications in the functioning of organisations (Jalil et al, 2016). Enterprise resource planning systems use reference to information systems employed to assimilate information flow at the entire organisational level. For the integration between functional areas to be achieved, enterprise resource planning operates a centralised database that stores the data collection and organisation in "real time"

(Sedera & Gable, 2010). The onset of such technological innovation of these software management can assist businesses such as hire purchase organisations to achieve the old dream of having a single source, and integrated management information system (Nicolaou & Bhattacharya 2006).

Hire purchase refers to a contract in which individuals generally reach agreement to pay for merchandises in parts or a percentage at a time (Adera, 1995). In a situation where a customer cannot pay for the quoted price of material goods as a lump sum but can pay a percentage as a deposit, a hire-purchase agreement permits the customer to hire the goods for a periodic rent. When the sum equal to the actual price together with the interest has been paid in equal installments, the customer might then exercise a choice to purchase the item at a prearranged price normally a nominal sum or return the item to the vendor (Adera, 1995). Hire purchase organisations are finance entities that obtain items from sellers or manufacturers, usually at discounted price, and sell or hire them to buyers (Crick, 2001).

Atieno (2001), notes that hire purchase is often beneficial to customers since it extents the cost of costly things over a prolonged time period and hence, hire purchase organisations have become very important business enterprises in developing economies. Aryeetey et. al, (1997) postulates that through hire purchase organisations, buyers are able to indulge themselves by purchasing what they usually could not afford.

Crick 2001 indicates that the natures of hire purchase transactions are complicated and need proper systems to manage each and step of the transaction. The use of enterprise resource planning systems is seen as an effective means of managing hire purchase transactions. As Basu, et al. (2012) notes, the implementation of enterprise

resource planning at the organizational level is seen as a modification in the information system and in the process of control and guidance.

Indeed, many businesses are attracted to ERP because it is supposed to result in improvements in output and efficiency, together with the ability to make the business more integrated. Huang and Palvia, (2011) have postulated that the integration concerns both mechanized organizational processes, and the information processed by the software. Irani et al. (2014) suggested that among the many reasons for the adoption of ERP by businesses, integration is a principal.

Deshmukh et al. (2015) have described the ERP system as a subgroup of the information system which is able to take over the entire management of the business, together with financial management and accounting, logistics and production management, human resources management, sales and purchases management, and administrative management. Uwizeyemungu and Raymond (2010) also asserted that an ERP system consists of all configurable and modular software applications, which are designed to integrate and optimize organisational management processes by providing a single repository and reliable businesses rules based on standard.

Nonetheless, in many cases, businesses adopted these systems without an evaluation of their suitability to their organisational context (Nicolaou & Bhattacharya (2006)). Therefore, their implementation could lead to lower levels of user satisfaction, and consequently result in lower levels of success. Besides, many businesses many at times do not have appropriate tools that enable them to properly evaluate these systems to ascertain if they meet the individual needs of users (Uwizeyemungu & Raymond, 2010). It is therefore important for organisations to assess their individual needs, and adopt an ERP system that meet those needs.

1.3 PROBLEM STATEMENT

The social, business and economic fabric of the modern-day society is characterized by the widespread of information technology (Kipyegon, 2015). Today, many businesses in Ghana are searching for methods of integrating the businesses processes in a bid to reduce operational cost, provide timely responses to clients, and interact with the stakeholders of the business in real time (Amoako-Gyampah, 2004).

To achieve this, many businesses in Ghana have resorted to the use of ERP systems to automate their processes on a standardised platform consistent with their strategic plans. Though the adoption of ERP's has witnessed substantial growth from the late 1990s to the present day (Ifinedo, 2011), this has not been without difficulties.

Fui-Hoon et al., (2003) and Kvavik et al (2002) assert that any organisation trying to implement an ERP system needs to have clearly outlined aims and expectations. Nonetheless, Frantz et al, (2011) state that even where organisations take all steps necessary to outline these aims and expectations, it has been reported that many of them fail to partly, and in certain situations fully, implement ERP systems into a productive capacity. There is the need for organisations to give adequate consideration to outline and communicate the aims and expectations of the ERP implementation.

Fowler and Gilfillan (2003) have opined that ERP implementation failures and difficulties which are made public do not represent accurately the rate of recurrence and magnitude of ERP implementation that fail or have weighty difficulties. That is to say that ERP implementation challenges and failures are more widespread than they are reported. It is not clear why some organisations succeed in their implementation of ERP systems whiles others that follow similar fundamental principles and methodologies do not succeed.

Studies have further found that compared to developed nations, the rate of adoption of ERP systems in businesses in developing nations is low (Hawari & Heeks, 2010). This has been attributed to disparities in wealth, and the fact that ERP systems are mostly costly (Uwizeyemungu & Raymond, 2010). Dezdar and Ainin (2011) observed that seventy percent of ERP implementations in emerging economies did not provide the anticipated results owing to diverse legal and government rules. This stems from the problem of universality in the application of ERP systems, where a system delivered in one context may have misfits applying in other contexts (Irani et al., 2014). Hence, it is important for organisations to critically assess their operations to determine the applicability of implementing ERP systems.

Studies into ERP systems implementation in organisations started in the late 90's when scholars showed interest in the subject due to growing implementation in several countries. Davenport (1998) studied the complications in the implementation of ERP system and their functionality. Van Everdingen et. al, (2000) studied over 2000 European businesses to assess the adoption of ERP in different enterprises. Much these earlier studies only focused on ERP implementation problems and the adoption of "best practices" in the processes.

According to Osman (2018) many research works have studied the Critical Success Factors (CSF) and Requirement Engineering (RE) influence in ERP implementation but very little is known in hire purchase organizations. This gap in literature calls for further research to assess the implementation of ERP systems in hire purchase organisations. Moreover, whereas several studies have been conducted on the implementation of ERP systems in businesses in general, very little of such studies exist in the Ghanaian context and mainly in hire purchase organisations.

Due to the growing interest in hire purchase businesses and the prominence they are gaining in developing economies (Atieno, 2001), it is noteworthy to assess the implementation of ERP systems in such organisations. This is particularly important as Mushavhanamadi and Mbohwa (2013) have identified that whereas some organisations adopt ERP systems to meet technological needs and future scope, others do so due to pressure from customers and suppliers. This present study therefore examines implementation of enterprise resource planning in hire purchase organisations using assessing the antecedents, challenges and critical success factors.

1.4 RESEARCH QUESTIONS

In line with the objectives, the study seeks to answer the following questions:

1. What are the antecedents in the implementation of ERP systems in organizations?
2. What are the critical success factors of the implementation ERP systems in organizations?
3. What are the challenges of the implementation ERP systems in organizations?

1.5 AIM AND OBJECTIVES

The main aim of this study is to examine the implementation of enterprise resource planning in hire purchase organizations; assessing the antecedents, challenges and critical success factors.

1.5.1 Specific Objectives

The specific objectives of this research are to:

1. To determine the antecedents in the implementation of ERP systems in organizations.
2. To ascertain the critical success factors of the implementation ERP systems in organizations.
3. To establish the challenges of the implementation ERP systems in organizations.

1.6 SIGNIFICANCE/JUSTIFICATION OF THE STUDY

The study is significant as it findings will contribute to existing literature on the prospects and challenges of the implementation of enterprise resource planning in hire purchase organizations. Hence, students and other researchers who will undertake future studies on topics related to the study area can refer to the findings of study in their literature review. This study is also significant as it will identify the prospects and challenges of the implementation of ERP in hire purchase organisations. The management of Credit Mall Ltd. can have useful information that will help them to make intelligent decisions on the best initiatives. In addition, it is imperative for management to understand the problems which they could face during ERP implementation; based on which this study provides suggestion to deal with the challenges to assist them in making informed decisions. The study also significant as it will provide stakeholders and other organisations on the prospects that come with implementation of ERP. Furthermore, stakeholders can obtain useful information from the finding and recommendations of this study which can be used to aid decision-making, policy, and planning.

1.7 METHODOLOGY

This study is grounded on the positivist research philosophy. The positivist research philosophy is based on the notion that an objective world exists autonomously from our observation of it. The positivist philosophy is usually applied in natural sciences. The approach employs quantitative research which is undertaken using closed-ended questions to obtain data from research participants. The approach involves testing or verifying theories or explanations, or identifying variables. According to Saunders et al. (2009), the researcher's role in this research philosophy is very paramount for the study. The researcher's role is to be an analyst to assess the data obtained and produce the right results in order to achieve the research aim and objectives.

The quantitative research approach was adopted. Quantitative approach is a dispassionate evaluation and the statistical, or numerical analysis of data obtained via a survey, questionnaire, or by manipulating existing statistical data through re-computations (Creswell, 2009). Quantitative data refers to data that is in a numerical form such as statistics, percentages. Quantitative data comes in numerical form for example percentages, and statistics, etc. (Williams, 2007). The quantitative approach will be adopted as the researcher does not want to interact with the participants of the study to influence their responses but remain as objective as possible. Quantitative research usually employs close-ended questionnaires. Furthermore, the study adopts a case analysis approach. Creswell (2009) has stated that case study is feasible if it entails reviewing the phenomenon in its natural environment. The case study is therefore feasible as the researcher works with in the organisation which is being used to conduct the hence examining the phenomenon in its natural environment.

The population of the study will include all staff (top management and employee) of the Credit Mall who numbered 58 at the time of the study. A simple convenient random sampling technique will be used to select the respondents of the study.

The research will be conducted using primary data. Primary data will be collected from respondents using a self-designed research questionnaire. The questionnaire will be made up mostly of close-ended questionnaires to limit the respondents in expressing their individual opinions in the study. The questionnaires will be designed based on the objectives of the study.

The data that will be obtained will be scored and computed by adding the scores of ticked responses by the participants. The raw answers will be coded and given numerical figures for easy inputting into the computer. Hence, the electronic analysis was done using the Statistical Package for the Social Sciences (SPSS) version 17.0. For the data analysis, descriptive analysis will be employed. The descriptive analysis includes percentages, frequencies, and the use of graphs. The Relative Importance File (RII) was also computed to assess the weight of each critical success factor in implementation of ERP systems.

1.8 SCOPE OF STUDY

This study implementation of enterprise resource planning in hire purchase organizations: antecedents, challenges and critical success factors. The implementation of ERP systems though universal is limited to hire purchase organisations in this study. Furthermore, the analysis of this present study will be the Credit Mall Ltd. The Credit Mall is a hire purchase company with its head office in Adabraka in Accra. The population of the study will be limited to management and staff of Credit Mall Ltd. The study is further limited to management and staff of the

Company in Accra. This is due to the fact that the head office of Credit Mall is in Accra, and most of the administrative, and ERP implementation decisions, and procedures are undertaken at the head office. With regards to the limits of the study, the focus is on antecedents, critical success factors, and challenges.

1.9 ORGANIZATION OF THE STUDY

The study will be laid out in chapters of five as follows. Chapter one will be the general introduction and summary, and will cover the background, the, objectives of the study; the research questions, justification of study, the significance of the study. Chapter two will review related and relevant literature in the study area. Chapter three will focus on methodology of the study that is, the population, the sampling size and the sampling method, the research instruments to be used to gather relevant data and the limitation encountered in collection of data. Chapter four will bring forth the presentation and analysis of the data obtained from the field. The results of the analysis will be presented in statistical tables for discussion. Chapter five will contain the summary of findings, conclusions drawn on the objectives of the study, and the recommendation suggested.

CHAPTER TWO

LITERATURE REVIEW

2.1 INTRODUCTION

This chapter presents the literature review of the study. The chapter reviews related literature on works which related to the study area. The chapter is presented in two main sub-topics; definition of concept of enterprise resource planning, theoretical review, and empirical review. The chapter provides relevant information on enterprise resources planning including definition, advantages, and operational benefits. The chapter also reviews theories which underpin the study and analysis of studies conducted by other researchers in relation to the study area.

2.2 CONCEPT OF ENTERPRISE RESOURCE PLANNING

Instead of organizations developing their own information systems they preferred purchasing packaged software in the late 80's. In terms of development, enhancement and maintenance packaged software were designed to suit many users which intend offering economies of scale (Sumner, 2005). Enterprise Resource Planning system as known today evolved from standard systems. Enterprise resource planning systems as defined by Kumar and Van Hillegersberg (2000) are configurable information systems packages that integrate information and information based processes within and across an organization's functional areas. Recent best business practices claims to embody the current generation of Enterprise Resource Planning systems providing reference models or process templates.

In meeting business prerequisite for numerous users, an Enterprise Resource Planning system is a software package developed for such purposes (Nilsson et al, 2000). For management accounting, human resource management, manufacturing, logistics and

sales control Enterprise Resource Planning caters for all solutions regarding administration.

Through a central database, parts or modules are integrated closely with each other (Davenport, 1998). In covering more or less of business areas, with the core functionality usually finance and control or human resources were based on developed Enterprise Resource Planning packages and Oracle Applications. From many companies, skills and experience have been embedded in the packages during its development.

Enterprise Resource Planning interest was shown by researchers in the late 90's. Davenport (1998) discussed the functionality and complexity of implementing an Enterprise resource planning system for which early research focused on issues and the use of best practices in process of implementation.

2.2.1 Enterprise Resource Planning software

Lot of research have been carried out on the adoption of Enterprise Resource Planning, the reason being that it offered advantages to an organization and secondly that the industry of the enterprise wide software is enormous. Records shows that the Enterprise resource planning software industry grew $24.4 billion in 2012 to $25.4 billion in 2013 representing 3.8% (Peng & Gala, 2014) and projected to increase by 13.66% over the period 2016-2019 (Peng & Gala,, 2014).

Knowing more about products and customer needs has been a keen prerogative of suppliers of Enterprise Resource Planning. Enterprise resource planning is believed to have been overly researched (Peng & Gala, 2014). Studies have been carried out on every stage of implementing Enterprise Resource Planning that is pre-adoption, adoption, and post- adoption.

The management of an organization starts researching as early as problems arises causing management to ponder over adopting Enterprise resource planning. In this regards, high level of importance is given to the organisation, technology, and environment framework (Tornatzky and Fleisher, 1990). Excellent results have emerged for practical purposes for which lots of studies have adopted this model. The studies on Enterprise resource planning centres on implementation (Dantes and Hasibuan, 2012)

To assist organization in implementing Enterprise resource planning, Enterprise resource planning software selection, adoption of models, barriers for adoption are critical success factors.

Implementation, evaluation of Enterprise Resource planning at the concluding steps, its effects on organizational performance and end users research areas focuses on (Anjum and Tiwari, 2011)

2.2.2 Advantages of ERP adoption for SMEs

According to Shin (2006), Enterprise Resource Planning has brought new challenges and opportunities for SMEs and its adoption has become an important factor to organizations.

A study carried out by Laukkanen et al (2007) to assess the correlation between organisational size, objectives, and constraints of adoption of enterprise resource planning system, disclosed that an organisation's decision to adopt Enterprise Resource planning has noticeable effects on the organization's size. Difficulties faced by SMEs vary from that of large organization. They concluded that "regarding ERP system adoption, small and medium-sized enterprises should not be considered as one homogenous group".

Investing in Enterprise Resource Planning systems by an organization has been the puzzle that researchers have been trying to unravel. Innovation is one of the reasons. Enterprise Resource Planning has helped organizations to innovate new products and helping managers to plan better (Esteves, 2009).

Organizations are offered benefits with the adoption of Enterprise Resource planning. According to Equey and Fragnière (2008) improved information and quality of work by SME's that implore Enterprise Resource Planning seem satisfied and acknowledged. For analyzing benefits of Enterprise Resource planning for SME's, a comprehensive framework is presented (Shang and Seddon, 2000). These advantages have been categorized as follows;

2.2.2.1 Operational benefits

The adoption of Enterprise Resource Planning can get organizations operational benefits. Observations made by Bavarsad (2013) depicted that an organization's financial performance had a direct effect on the adoption of the Enterprise Resource Planning software. Costs reduction can be attributed to Enterprise Resource Planning adoption (Love et al., 2005). The Enterprise Resource Planning system can lead to a decline in levels of inventory and production increase (Esteves, 2009). Tommaso (2009) found that the Enterprise Resource Planning when adopted also reduced cost of administration of SME. The management of information is made easy as the entire organisational information is centralized in an Enterprise Resource Planning system. Williams and Schubert (2010) continued that mistakes such as data idleness, typos, and wrong calculations are better handled. Spathis and Constantinides (2003) also stated that the need for timely information was the most important reason for the adoption of enterprise resource planning.

Williams and Schubert (2010) have also stressed that there is expedient retrieval of information from main source that is the flow of information is better with Enterprise Resource Planning system. Timely and accurate information are given to all concerned persons for whom transactions are performed quicker and more resourcefully with the organisation (Bavarsad, 2013). Customer satisfaction can also be improved with Enterprise Resource Planning (Williams and Schubert, 2010).

2.2.2.2 Managerial benefits

Due to imperfect information, the prediction of the state of the environment is uncertain (Irani et al, 2014). Managers' decision making on strategic future plans of the organization is necessary when it comes to information processing. Enterprise Resource Planning makes decision-making easier, and facilitates planning. According to Davenport (1998), managers who have suffered at length with and are greatly frustrated with mismatched information systems and inconsistency in operating procedures, may be enticed by off-the-shelf ERP solutions to the difficulty of business integration. In their study, Spathis and Constantinides (2003) assessed quantitatively the effectiveness of Enterprise Resource Planning for the management of businesses. The outcome revealed that improved quality of reports- financial reports was one of the highly perceived benefits by users.

Report offered management healthy information giving a clear picture of happenings in the organization and decisions on its future vision. Overall performance is improved and that resources are better managed (Karimi et al, 2007). Management can do a better inventory allocation with the aid of quick and accurate information with improved inventory turns. Management is given lots of options by Enterprise Resource planning system to deal with just-in-time replacement for better stores

control. Improved supply chain management of a business is attributed production schedules prepared with more correctness with the assistance of Enterprise Resource planning (Davenport, 1998). Forecasting of projected trades and allocating the exact amount of labour at the precise time at the exact place for managers have been made easier. Along these lines, the costs of labour can be managed effectively.

2.2.2.3 Strategic benefits

All organizations are faced with internationalization and globalization irrespective of their size (Poba-Nzaou et. al 2008). According to Love et. al (2005) the adoption of Enterprise Resource planning can lead to the growth of businesses. With the help of Enterprise Resource planning new and innovate products can be produced (Rovere, 1996). Furthermore, ERP assist in better communication and organisational information quality (Shang and Seddon, 2000). The promotion of integration and interaction among enterprises with clienteles, dealers and customers is the adoption of Enterprise Resource planning (Esteves, 2009).

According to Kelle and Akbulut (2004), organizations achieve better cooperation with its suppliers with the help of Enterprise Resource planning. Buyers can enhance their own production plans and delivery schedules gaining access to the suppliers' production and delivery schedules. The buyer's real time store level data can be used to plan their inventory and production schedules by suppliers.

2.2.2.4 IT infrastructure benefits

Standard application architecture is provided by Enterprise Resource Planning software. Modules of the system are integrated with each other. This quality of the system provides following IT advantages (Shang and Seddon, 2000):

- An infrastructure that could support business flexibility for future changes in the IT infrastructure of the organization.
- Costs of IT and marginal cost of business units' IT are reduced.
- Increased capability for quick and economic implementation of new application exists

Adaptability to new technologies is obvious to organization and other new technologies easily (Esteves, 2009)

2.2.2.4 Organizational benefits

According to (Shang and Seddon, 2000), organizational benefits refer to the benefits that arise from the deployment of enterprise system in an organisation predominantly in terms of, application, interconnection, knowledge and accomplishment of its selected strategies. Loo et al., (2013) in his study of ERP adoption and its effects on organisations in two different Dutch businesses found that, organisations which adopted ERP gained enormous benefits. The use of two firms one of which had adopted ERP over a three year period from 2007-2009 showed that the organisations which adopted ERP had integrated business processes, faster work turnover, and faster information dissemination. They concluded consequently that organiations which implemented ERP systems benefited more than organisations which did not implement ERP systems.

2.2.3 Challenges for ERP Adoption for SMEs

The challenges businesses face in the implementation of enterprise resource planning systems has been a debate among researchers. According to Davenport (1998), although enterprise system can provide enormous benefits, the risks they carry is equally unlimited. Large amounts of risk are involved since Enterprise Resource

planning projects require lots of money. Implementation firms adjudged about 70% of Enterprise Resource planning to be unsuccessful (Bitsini, 2015). Other challenges of Enterprise Resource planning implementation have been identified as time and money. In as much as their attribute advantages to organization, it ERPs posed possibly amplified risks to a business in terms of security and audit predominantly due to automated inter-dependencies among processes of the business and combined rational databases.

2.2.3.1 Costs of adoption

Harindranath et al. (2008) had found their study that the dominant reason why organisations do not adopt ERP software was cost. This was found in their study of 348 SME's in South England which revealed that owners of SME's owners perceived cost and complexity of Enterprise Resource Planning systems and wary of consultants and vendor organizations. Lots of money is required for the implementation of Enterprise Resource Planning system and much more costly as the implementation of a range of Enterprise Resource Planning becomes broader (Tarn et al, 2002).

ERP projects cost can generally be categorized into the following key areas:

- licensing of software
- costs of hardware
- Consultancy costs
- Training and other internal staff costs

According to Rajapakse and Seddon (2005), the software in itself is expensive and a lot of consultation fee is charged by consultancy firms. Zhou et al. (2007) concluded that fee for outside consultants constituted about 60% of the cost of Enterprise Resource Planning implementation.

The training of employees' for the firm was seen as an extra expense. Shin (2006) were of the view that new complicated software is better than an easy to understand enterprise application

The future is Enterprise Resource Planning for which now organizations are shifting towards cloud Enterprise Resource Planning system (Peng & Gala, 2014).

Software as a Service (Saas) is an internet based application which manages an entire organization and replaces its traditional enterprise software. Firms can buy services or outsource from other vendors who owns infrastructure instead of owing infrastructure like software, computers etc. Usually such service is internet which is provided by a vendor over a network. The use of new ERP system is cheaper, more flexible and very easy to use than traditional enterprise resource planning systems according to studies related to cloud Enterprise Resource Planning (Arnesen and Arnesen, 2013).

2.2.3.2 Complex business process reengineering

The whole organization involving all departments and sub-department as the system is integrated during the implementation of Enterprise Resource Planning (Uwizeyemungu and Raymond, 2007). According to Altinkemer et al (2011), redesigned methods usually involve applying information technology to obtain substantial improvements in fundamental performance areas re-engineered in business processes.

In Ehie and Madsen's (2005) study depicted reengineering is needed in many organizational processes. Very difficult problems are bound to occur during implementation if an organization lacks experience with process reengineering in the business. According to Holland and Kumar (1995), 60% to 80% of organizations failed during the process of reengineering. According to the new Enterprise Resource

Planning system, restructuring of an organizational hierarchical structure is needed. There could be movement of human resources from one place to another. The problem is visible in both small and large scale enterprises (Laukkanen et al, 2007). The federalist operating model was recommended by (Davenport). This was based on the most problematic question for management to make decisions to changes which must be made within the organisation and what does not need to be changed. Questions regarding information integration needs and concerns are needed by managers to ask.

2.2.3.3 Lack of user-friendliness

In achieving operational efficiency and planning for their future by management Enterprise Resource Planning system help organization. Enterprise Resource Planning is not used to the fullest extent due to lack of vision and awareness. Due to lots of option availability on the Enterprise Resource Planning tend to be difficult to use by employees (Harindranath et al., 2008). It is thus, not unexpected that it takes a while for users of enterprise resource planning to acquire the optimal potential benefits given the complexity and conceptually diverse nature from most systems (Booth et al, 2000). Before they start using the software, employees need intensive training to be conversant and comfortable.

2.2.3.4 Cultural dimension

The significant effect on adoption of Enterprise Resource Planning is linked to national culture. The adoption pattern from a cultural point of view on medium sized enterprises analyzed (Van Everdingen and Waarts, 2003). Hofstede (2001) conducted a study based on the national cultural categorizations. The study found that compared to larger firms, small and medium-sized businesses were more influenced by their

local culture. A country's adoption of enterprise resource planning is negatively influenced for which higher levels of uncertainty avoidance, masculinity and power distance dimensions. Similarly low versus high context cultures, and monochromic and poly-chronic cultures have a significant impact on the country adoption rates.

2.2.4 The ERP Implementation Process

In understanding the adoption process of Enterprise Resource Planning, conceptual Enterprise Resource Planning life cycle frameworks or process models have been developed by researchers

A five-staged Enterprise Resource Planning implementation process using various reviews from previous literature was recommend by Ehie and Madsen (2005); project preparation, business blueprint, realization , final preparation , Go-live and support. Project preparation refers to a comprehensive planning phase that forms a project team with leadership roles, sets budget targets, and defines the project objectives and plan. The current business process is analyzed in detail in order to select an appropriate Enterprise Resource Planning system in the business blueprint phase

Training is meted out to the project team on the functionality and configuration of selected Enterprise Resource Planning system. In gaining an insight to reengineering its business process understanding the selected Enterprise Resource Planning system is relevant.

During the realization phase, implementing an Enterprise Resource Planning system comprising modification, development of interfaces, and data conversion is concentrated on by the project team and at the same time testing is carried out at each process design. The integration and testing throughout the organization is carried out with full data and various scenarios at the final preparation phase. The final phase

deals with the training of end users as well. Finally the Enterprise Resource Planning system is constantly stabilized with extensions for competitive advantage in the go-live and support phase.

2.2.5 Critical Success Factors in ERP Implementation

In academia, the critical success factors in the implementing ERP systems have been widely studied. According to Bavarsad (2013), critical success factor refer to the restricted areas of unit in which outcomes, if they are adequate, will guarantee a fruitful competitive results for the organisation. In ERP system implementation, Arnesen and Arnesen (2013) have defined critical success factors as the factors which are required to make sure that ERP project is successful.

Many researchers have identified the critical success factors required for a successful of ERP systems in organisations. For instance, Bitsini (2015) had identified that the critical success factors required in ERP implementation included change management, clear vison and plan for implementation, highest level of support from management, project management practices, communication, minimal level of customization, performance indicators, supervision of software, and management of IT legacy ad business systems.

In addition to the above, Dantes and Hasibuan (2011) found further that organisational fit, and organisational resistance to changes were critical success factors in the implementation of ERP systems in organisations. Equey and Fragnière (2008) postulated that the critical success factors required for the ERP implementation can be group into two main categories: 1) strategic and 2) tactical.

The strategic factors include understanding legacy systems, organisational vision, ERP strategy, support of top management, and project schedule or plan (Equey and

Fragnière, 2008). The tactical factors according to Equey and Fragnière (2008) include the impact of consultations, human resources, software configurations, and business process re-engineering.

2.3 THEORETICAL FRAMEWORK

One important element in research is to identify theories which underpin which form the theoretical basis. In this regard, four theoretical models underpin the conduct of this present study. They include the diffusion of innovation theory, the resource based view of the firm theory, the institutional theory, and the panoptic theory. This section of the study therefore reviews these theories in relation to the study.

2.3.1 Diffusion of Innovation Theory

The theory of diffusion of innovation which was originally developed by Rogers in 1962 was popularized in 1970s and from that time has been employed productively in quite a number of fields and disciplines and, such as information technology implementation. In addition, several other theories have been based on the ideologies proffered in the diffusion of innovation theory (Bass, 1969; Moore, 1995; Rogers, 1976).

According to Rogers (1976) diffusion refers to the process through which a social system transfers innovation through particular channels among members (Basu et al., 2012). The diffusion of innovation theory proposes that a distinction and identification should be made on five different kinds of innovation adopters: 1) innovators; 2) early adopters; 3) early majority; 4) late majority; and 5) laggards.

The innovators are always the first people to accept and receive an innovation and are considered as being adventurous, technically clever, capable of dealing with high levels of uncertainty regarding innovations, and most often control huge financial

wealth which cushions them against potential losses from failed innovations implemented (Aharoni, 1981). On the other hand, the laggards in the diffusion innovation theory spend a long time in taking a decision on the innovation, and are mostly incredulous and apprehensive of innovations, have no judgment leadership, and typically have inadequate resources.

Orlikowski (1993) postulated that the diffusion innovation theory has main determinants which affect the level of diffusion; the innovation itself, the social systems, the channels of communication, and time. The viewpoint of using the diffusion innovation theory to explain the implementation of ERP systems in hire purchase organisations in Ghana is explored. In this viewpoint, IT assimilation can be best measured through the extent of ERP implementation.

From the perspective of technological diffusion, IT implementation can be defined as an organisational effort to diffuse a suitable IT innovation system in a user community (Cooper and Zmud, 1990). This stresses the point that a mere adoption of ERP systems will not necessarily imply that they will have successful assimilation. The success of the implementation of ERP systems in the organisation hence hinges on the extent to which it was implemented; the number of functional areas integrated through the implementation and the level of acceptance from the members of the organisation.

2.3.2 Resource-Based View Theory

In a competitive environment, the theory of the resource-based view (RBV) postulates that the resources that a business has established (competences) are applied as the source of competitive advantage. The resource-based view theory is operates on the notion that the anticipated results of efforts of the management of a business is a

source of sustainable competitive advantage which allows the business to achieve economic benefits or abnormal returns (Amoako-Gyampa, 2004).

Barney (1991) postulates that the resource-based view theory advances that where a business possesses resources with some significant exceptional features; which are difficult to imitate, without direct alternatives, and which enables the business to trail opportunities or circumvent threats, then it can achieve sustainable competitive advantage.

Andersen and Kheam (1991) has stated that resources include anything that is regarded as a strength or weakness of a business and thus can be defined as the assets (tangible and intangible) which are semi-permanently tied to the business. The resource-based view model postulates that businesses have resources, portions of which assists them to be competitive, and some other parts result in higher long-term performance (Andoh-Baidoo and Ngwenyama, 2005).

Businesses enjoy temporary competitive advantage when exploit the benefits generated those rare but valuable resources. The business can however sustain this temporary competitive advantage over a longer period if it is able to guard against imitation of the resource, transfer, or substitution.

The resources available to the firm are its assets and capabilities. According to Andoh-Baidoo and Ngwenyama (2005) assets can either be tangible (e.g., computer hardware, network infrastructure) or intangible (e.g., software, strong supplier relations). On the other hand, capabilities include skills, including practical or management ability, or processes for instance systems improvement or assimilation. In ERP implementation, the numerous resources that business owns need to be suitably combined to realize the anticipated benefits.

2.3.3 Institutional Theory

In addition to natural economic laws, work arrangements are also shaped by cultural, social, and political processes. According to Scott and Kaindl (2000) institutional theory speaks to the deeper and more robust aspects of social structure. It deliberates on the methods through which arrangements, such as schemas, procedures, standards, and sequences, are developed as firm guidelines for social behaviour. The institutional theory questions the means of creation of these elements, their diffusion, adoption, and adaption over space and time; and how they decline and become disused (Scott and Kaindl 2000). The institutional theory is applied to highlight the context of implementation of ERP systems in hire purchase organisations. The theory is applied in two different ways to examine implementation of ERP in hire purchase organisations.

Firstly, organisations are seen as rationalized systems (Scott, 2004); arrangements of roles and related activities arranged to replicate means-ends associations focused on the pursuit of identified goals. Norms of rationality performs a fundamental role in the establishment of formal organisations (Meyer and Rowan, 1977). Therefore the organisation is also seen as a social establishment which has its procedures, standards, customs, control systems, and codes of conduct that has advanced over time. To a very large extent, this shapes the conduct of managers and employees, and normally informs how the organisation relates with its stakeholders (internal and external).

An alternative perspective to institutionalism advocates that businesses embrace certain practices to gain legitimacy that assist the attainment of resources desired for their survival and not necessarily for rational reasons. Government, professional and

successful businesses are often times the source of these coercive, imitative, and normative forces of legitimacy (Teo et al, 2003).

From the institutional theory perspective, the researcher observes that rules in well-established organisations particularly multinationals are quite different from those which are growing. Organisations in many emerging countries such as Ghana saddled poor work morals, corruption, and nepotism which oftentimes have dire consequences on their productivity (McDade and Spring, 2005).

Secondly, the researcher applies the institutional theory to assess the likely impact of supervisory and governmental organizations (coercive forces) on hire purchase organisations in Ghana. In an earlier study, Campbell (2007) have identified the significance of tangible network relations (normative forces) that convey pressures (normative or coercive) from institutional agents, including the state and professional groups, and the influences that stem from related or similar institutions (imitative forces).

The institutional theory is useful in examining why notwithstanding the numerous challenges acknowledged in their implementation in organisations, ERP implementation is on the ascendency. Institutional forces and structures like intense competition, governments' regulations, industry benchmarks, and licensing requirements (Seethamraju and Seethamraju, 2008) can drive ERP implementation regardless of incapacitating environmental situations. Al-Jabri and Roztocki (2010) further stated that professional, organisational, and industrial associations also put pressure for implementation of ERP.

2.3.4 Panoptic Theory

The panoptic theory was developed by Foucault in 1977 through the observation of Bentham‘s panopticon. The panopticon was a recommended prison design that guaranteed continuous surveillance of the inmates. The panopticon structure was developed in a way that allows prison wardens to observe the inmates without them knowing if they were under surveillance. This resulted in prisoners behaving as if they were under observation, and ensured self-control and discipline. This outcome of the panopticism permits for reduced surveillance and supervision of prison inmates (Foucault, 1977).

Elmes et al (200) applied the panopticism concept IT research by borrowing the model of Foucauldian disciplinary power to offer the two theoretical viewpoints of Panoptic Empowerment and Reflective Conformity. Zuboff (1988) also employed the panoptic model in IT and suggested that the IT offers the observation, and not any physical structure. In this manner, IT systems can guarantee organisational control. As a result, modern surveillance systems can execute a panoptic relationship and present partitioning of the employees devoid of the need for borders or walls (Botan, 1996). Zuboff (1988) postulated that such information panopticon liberates management control from time and space restrictions.

Organisations can increase information visibility through the implementation of huge IT systems like ERP across different sections. Business-wide information visibility has been likened to the panopticism model as they render the activities of workers the employer, as the visible cells in Bentham‘s original model, and in this manner exert a panoptic control on staffs to conduct themselves in approved ways.

Botan (1996) has considered a scale upon which each worker either has control of, or is controlled by, the information technology the worker employs. The panoptic threshold refers the point at which the worker becomes controlled; thus the point where the information technology turns into a surveillance technology.

Botan (1996) postulates that this threshold is exclusive to every situation; however it is defined by the same four factors: panoptic potential of the technology, executive policy, worker perception, and maturation.

The panoptic theory is useful in examining the use of ERP systems as a means of control and observation of employee activities. As a panoptic system, ERPs becomes a surveillance technology system for management which ensures that employees conduct themselves in acceptable ways whiles management take time to attend to other important business matters.

CHAPTER THREE

METHODOLOGY

3.1 INTRODUCTION

This chapter presents the method applied in carrying out this study. It covers the various methods used to collect and analyse the study's data. The chapter includes the research philosophy, research design, the population, and sampling and sample size.

In social sciences research, the research paradigm is the guiding principle of its philosophical position. According to Saunders et al. (2009) research paradigm is a set of generally shared norms, concepts or beliefs within a society which establishes and directs the way of people perceive reality. As research paradigm connotes shared assumptions in a community, they vary with environments. For this reason, some research paradigms are presented in this section and the most suitable for this present study is selected.

3.2 PHILOSOPHICAL CONSIDERATION

In social sciences research, the research paradigm is the guiding principle of its philosophical position. According to Pollack (2013) research paradigm is a set of generally shared norms, concepts or beliefs within a society which establishes and directs the way of people perceive reality. As research paradigm connotes shared assumptions in a community, they vary with environments. For this reason, some research paradigms are presented in this section and the most suitable for this present study is selected.

3.2.1 Epistemology

According to Panas and Pantouvakis (2010), epistemology refers to describing what is generally considered as accurate knowledge of the social world. Epistemological philosophy defines a researcher's stands on what is considered as standard knowledge. Different scholars have outlined Positivism and Interpretivism as the main paradigms of the epistemology philosophy. The positivist focuses on quantitative research whereas the interpretivist is more inclined towards qualitative research.

According to Farrell (2014) the positivist view of epistemological philosophy considers confirmed evidences which have been established through systematic investigations in an objective method for repetition. A key concept under the positivist approach is the notion that the social world can produce certifiable understanding through the application of scientific methods.

On the contrary, interpretivism upholds that the researcher interacts with society in such a manner that is considered as facts are not fixed and cannot be objective as they are open to the ideas of the researcher (Agbodjah, 2008). This philosophy relies on the researchers' experiences and interactions with society to understand a phenomenon. It be noted that a key difference between positivism and interpretivism is the in the former the researcher is not included in the observation whiles in the later the researcher is included in the observation.

3.2.2 Ontology

The ontology philosophy concerns identifying reality and displaying the statements and assumptions, supporting the advancement of theoretical models (Panas and Pantouvakis 2010). Saunders et al, (2009) have stated that the ontological philosophy

of a researcher champions the view of the researcher about the nature of reality. According to Panas and Pantouvakis (2010), the two main types of Ontological philosophies are Objectivism and Constructivism. Objectivism is concerned with the exploration of social events devoid of social interactions. Constructivism on the other hand which proposes that social events are dynamic hence requires social interactions.

Whiles Objectivism is more inclined towards quantitative research, constructivism deals with qualitative research. Kwofie (2015) also put forward that ontologists try to gain understanding of research phenomena from the perspectives of realists and/or idealists. Realists perspective of research is based on established structures whereas idealist perspective of research considers different insights from different participants.

3.2.3 Axiology

This philosophy considers the value of knowledge and the researchers' perspective on the role of value in researches (Saunders et al., 2009). The researcher may take two different positions as being "value-free" or "value-driven" in selecting what to study and how the study should be conducted. The value-free position underscores the view that an investigation into a research phenomenon is purely based on objective criteria. The "value-driven" position postulates that what is being investigated is based on subjective criteria or on human beliefs, experiences, and interactions (Kwofie, 2015). Pathirage et al (2005) has postulated that in comparison with epistemological and ontological views, the value-free is comparable to positivist and realists whereas the value-driven is more inclined with the interpretivists and idealists.

3.2.4 Philosophical Position

This study is grounded on the positivist research philosophy. The positivist research philosophy is based on the notion that an objective world exists autonomously from

our observation of it. The positivist philosophy is usually applied in natural sciences. The approach employs quantitative research which is undertaken using closed-ended questions to obtain data from research participants. The approach involves testing or verifying theories or explanations, or identifying variables. Furthermore, the choice of this philosophy is the fact that the study employs statistical models and descriptive statistics to explain the variables. The scientific nature of the study thus guarantees that the research is leans toward the value free end of the axiological context of research philosophy.

3.3 RESEARCH DESIGN

According to Saunders et al., (2009) research design is an overall plan of a research adopts to achieve the research objectives. Creswell (2009) also defined research design as the overall course of the research comprising the processes adopted to conduct the research. This study adopted the case study research design. Creswell (2013) has postulated that a number of research strategies can be adopted in social science researches including; survey, case study, experiment, action research, ethnography, grounded theory, archival research, cross sectional studies, participative enquiry, and longitudinal studies.

This study adopts the case study research strategy. Several journals have recounted case study research which Benbasat et. al (1987) has provided a basis for considering such a study. Benbasat et. al (1987)) has stated that case study is feasible for three key reasons namely:

1. Case study is feasible if it entails reviewing the phenomenon in its natural environment;
2. To appreciate the nature and the difficulty of the on-going process, the research can ask why and how questions for easy understanding; and

3. When undertaking a study in area where little of such study have been conducted in the time past.

In this present study, the case study is the best fit design as the study is on implementation of enterprise resource planning in hire purchase organizations: antecedents, challenges and critical success factors. The researcher is carrying out this study at the Credit Mall having worked with it for several years and therefore the study will be undertaken in its natural environment.

Furthermore, the case study is feasible here as the researcher understands the nature and the difficulty of the on-going process, and has asked why and how questions. In this case, the company's ERP implementation is an on-going process. And furthermore, there is very little research conducted in the study area in the past in Ghana.

3.4 RESEARCH APPROACH

According to Creswell (2009) research approach connotes the steps or processes which a researcher adopts in carrying out a study. The research philosophy underpins the research approach applied in carrying out the study to answer the research questions (Kwofie, 2015). In social sciences research, Deductive and Inductive research have been identified as two main approaches.

The Deductive research approach considers existing theories or ideas on a phenomenon by finding, testing, and confirming theories through observation (Creswell, 2013). This approach is regarded as top-bottom approach in formulating and testing hypothesis while the objectivity of the researcher is maintained. This implies that the deductive approach begins with identifying a relevant theory and

testing the theory through scientific methods to confirm the theory. The deductive approach is applied in testing particular propositions (Creswell, 2009).

In contrast, the inductive approach which is mostly used in formulating theories starts with the evaluation of particular occurrences in society through discovery and advancement of patterns from the analysis of data collected (Creswell, 2013). This approach employs bottom-up methods in which the study of specific matters is used to make generalisations of a specific event. Saunders et al. (2009) has stated that the inductive approach mostly relies on qualitative data.

This present study employs the deductive research approach because it involves the application of theories which already exist and employs quantitative methods to make inferences into implementation of ERP systems in hire purchase. In effect, the study first of all considers theories which serve theoretical guide, and consequently collects data from research participants. Afterwards, statistical methods are used to draw diverse interpretations within the perspective of the existing theories. The results of this study therefore are observations and findings contrary to formulating theories.

3.5 RESEARCH STRATEGY

The quantitative research strategy was adopted. Quantitative research design is a dispassionate evaluation and the statistical, or numerical analysis of data obtained via a survey, questionnaire, or by manipulating existing statistical data through re-computations (Creswell, 2013). Quantitative data refers to data that is in a numerical form such as statistics, percentages. Quantitative data comes in numerical form for example percentages, and statistics, etc. (Williams, 2007). The quantitative design is adopted as the researcher does not want to interact with the participants of the study to

influence their responses but remain as objective as possible. Quantitative research usually employs close-ended questionnaires.

3.6 DATA COLLECTION

3.6.1 Population

In simple terms, a population is the group of people or objectives on which data is collected in a research. According to Williams (2007), the population of a study is the totality of animate or inanimate objects on which the study is based or on which data is collected. Allwood et al, (2012) has defined population as the comprehensive list of conceivable participants encircling the unit of analysis. The population of the study includes all staff (top management and employee) of the Credit Mall who numbered 58 at the time of the study. The population includes the distribution of the staff in the various units is shown in Table 3.1.

Table 3.1 Population distribution in Credit Mall

Branch	Management	Administrative staff	Drivers	**Total**
Accra	4	18	4	25
Kumasi	1	11	2	14
Tamale	1	6	1	8
Ho	1	5	1	7
Takoradi	-	2	-	2
Techiman	-	2	-	2
Total	**7**	**43**	**8**	**58**

Source: Field data, 2018

3.6.2 Sampling and Sampling Technique

Sample is a small proportion of the whole. It is a representative of the whole showing a reflection of what the entire population is. Williams (2007) defined a sample as a subgroup of a study's population on which a researcher collects data. Sampling is

premised on the reason that a population may be too large to make practically impossible to survey every member in it. In addition, the researcher may have very limited financial resources and time to study every member of the population. In quantitative studies however, larger samples generate more precise results (Allwood et. al, 2012). So the researcher included all the elements of the study excluding the drivers. Hence the sample chosen for this study is 50 respondents. The sampling technique adopted for this study is the purposive sampling. The purposive sampling was adopted to include management and administrative staff because their work involves the use of the ERP systems implemented in the organisation. Since drivers did not employ the ERP systems in their work, it would have affected their ability to respond to the issues in this study hence, their exclusion.

3.6.3 Sources of data

The data for the study was from a primary source. The discerning measurement approach was used to measure variables through a self-administered questionnaire. This approach is the most appropriate for assessing constructs such as the prospects, challenges, and antecedents of the implementation of ERP systems in organisations (Allwood et. Al. 2012). Moreover, a self-administered questionnaire was the best option for achieving a high response rate (Creswell, 2013) considering the fact that employees could not have responded instantly.

3.6.4 Questionnaire Design

The questionnaire was designed after examining the objectives of the study and the literature reviewed. To ensure validity, the questionnaire was first given to ten ERP Specialists who made an exhaustive input into the questionnaire. Having made those

corrections, the questionnaire was then given to the research supervisor who also made some suggestions on some of the issues contained in it.

Finally, a pretesting of the research instrument was carried out with a pilot study at the Accra branch of the Teachers Mall. A sample size of 15 respondents was used for the pretesting all the questionnaires administered were fully answered. The 15 questionnaires retrieved, were edited, coded and the Statistical Package for the Social Sciences (SPSS) software version 17.0 was used for the electronic analysis. A reliability coefficient was computed using the Cronbach Alpha of Coefficient. The results of the test gave 0.875 coefficient of reliability, which showed that the research instrument had a strong reliability (Saunders et al., 2009). Thus, the research instrument was deemed appropriate to be used for the final data administration.

3.6.5 Questionnaire Distribution

Some of the questionnaires were administered personally, and some were delivered by a van. In Accra, the questionnaires were delivered personally by the researcher. For respondents in Kumasi, Tamale, and Ho, questionnaires were delivered by the delivery vehicles of the Teachers Mall. Since the researcher works in the organisation, this did not pose as a challenge. Before the data collection, the researcher wrote officially to the Chief Executive Officer of the Credit Mall to inform her about the study.

The Chief Executive Officer notified the various sectional heads in Kumasi, Tamale, and Ho about the researcher and the information needs. The research provided her contact number on the questionnaires sent to the offices outside Accra. This allowed respondents to contact her for questionnaires for clarification on issues.

3.7 DATA ANALYSIS

The data gathered from the respondents were analysed manually and electronically. The manual analysis was done by way of editing of the raw answers, coding and given numerical figures for easy inputting into the computer. Hence, the electronic analysis was done using the Statistical Package for the Social Sciences version 17.0. The SPSS was used to generate frequencies, percentages.

The results of the data analysis were presented using frequency tables. The critical success factors of implementation of ERP system in hire purchase organisations are assessed using the Relative Importance Index (RII). According to Egemen and Mohammed (2005), the relative significance index procedure has been largely employed in studies to measure mindsets concerning reviewed situations. The Relative Importance Index (RII) was computed using the following equation:

$$RII = \frac{\sum W}{A*N}$$

Where:

RII denotes relative importance index;

W represents the weight given to each factor by the respondents from one to five;

A represents the highest weight (in this case which is 5); and

N connotes the total number of respondents.

3.8 ETHICS

Some ethical steps were taken during the data collection and this made it possible to achieve a high response rate. First of all management of Credit Mall was appropriately informed which encouraged them to support the data collection process. In addition, respondents were briefed on the purpose of the research, and they were

told that they could opt out. They were also assured that no part of the questionnaire required them to disclose their identity to ensure their anonymity. In addition, they were told that the study was for academic purposes, and to contribute to enhancing the implementation of ERP in the organisation.

3.9 CONCLUSION

This chapter brought to the fore the methodology that was adopted to carry out the study and in essence achieve the objectives. The research philosophy, research strategy, and the research approach were explained in this chapter. In addition, the chapter presented the rationale behind the quantitative design, the population, and sampling procedure. The chapter also outlined the method applied to analyse the data obtained with the research instrument.

CHAPTER FOUR

DATA PRESENTATION AND DISCUSSION

4.1 INTRODUCTION

This chapter presents the data presentation and discussion of the study. The study assessed implementation of enterprise resource planning in hire purchase organizations: antecedents, challenges and critical success factors. The analysis of the study pertains responses obtained from the questionnaire administered to the 50 respondents included in this study. The chapter is separated into four main sections. The first section covers demographic characteristics of respondents, and the rest of the chapter cover the main issues of the study.

4.2 DEMOGRAPHIC CHARACTERISTICS OF RESPONDENTS

4.2.1 Highest level of education

Table 4.1 Highest level of education of respondents

Education level	Frequency	Percentage	Cumulative Percentage
HND	17	34	34
BSc	22	44	78
Masters	4	8	86
Other	7	14	100
Total	**50**	**100**	**100**

Source: Field data, 2018

The survey showed as indicated in Table 4.1 that 34% of the respondents had Higher National Diploma (HND), 44% had Bachelor's degree (BSc), and 8% of them had

Master's degree. It also indicated that 14% had other certificates including professional qualification (ACCA, ICA). The results indicate that majority of the respondents had Bachelor's degree.

4.2.2 Job Role of Respondents

Table 4.2 Respondents job role

Role	Frequency	Percentage	Cumulative Percentage
Top Management	3	6%	6%
Branch Manager	4	8%	14%
Administrative (senior staff)	26	52%	66%
Administrative (junior staff)	17	34%	100%
Total	**50**	**100**	**100**

Source: Field data, 2018

From the results in Table 4.2 above, 6% of the total respondents were top management staff, 8% were branch managers, 52% were senior staff (administrative), and 34% were junior staff (administrative). Therefore majority of the study's participants were senior staff (administrative).

4.2.3 Number of Years Worked in Organisation

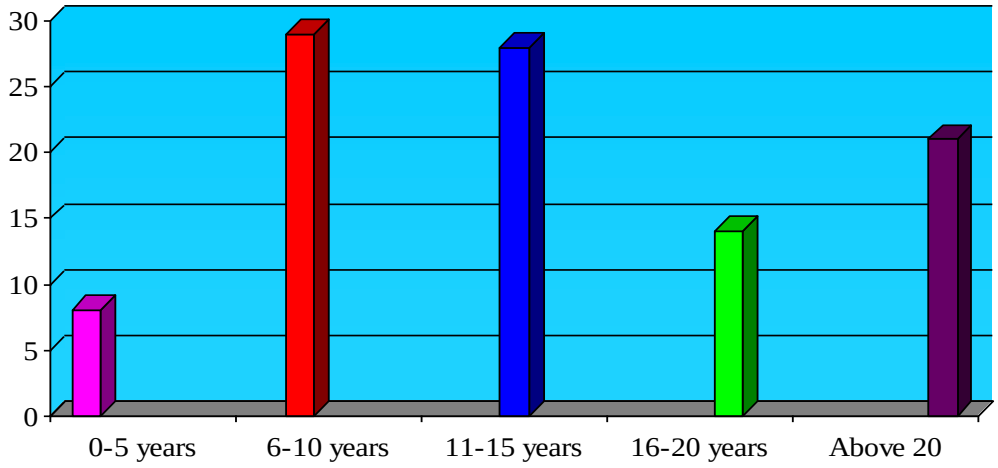

Figure 4. 1: Number of years worked in organisation

Figure 4.1 shows that 8% of the study's respondents have worked with the organisation between zero and five years, while 29% have worked with the organisation between five and ten years. The survey further indicates that 28% of the respondents have worked with the organisation between 11 and 15 years, 14% have worked with the organisation between 16 and 20 years, and 21% have worked with the organisation above twenty years. This result indicate that majority of the respondents had worked with the organisation between five and ten years

4.3 ANTECEDENTS IN THE IMPLEMENTATION OF ERP SYSTEMS

This section of the analysis assessed the main antecedents of the implementation of ERP systems in organisations. The section also sought to find out a few things about ERP implementation in Credit Mall.

4.3.1 ERP system implemented in Credit Mall

All the 50 respondents indicated that the ERP system implemented in the Credit Mall is Oracle. In this regard, respondents were asked to indicate the functional areas in the

business where the ERP system is used. Table 4.3 shows the results of the analysis are on participants responses.

Table 4.3 Functional areas in the business where the ERP system is implemented

Functional area	Yes	No	Total
Accounting/Finance	50	-	50
Sales/Distribution	50	-	50
Human Resource	50	-	50
Logistics/Inventory Control	50	-	50

Source: Field data, 2018

Table 4.3 shows that all the study's participant agreed unanimously that the Oracle system is employed in these functional areas; accounting/finance, sales/distribution, human resource, and logistics/inventory control. The results of the study imply that the Oracle system is used in all the functional areas of the business (accounting, sales, human resource, logistic/inventory control).

All the 50 respondents in the study asserted that the goal of the ERP implementation is to improve accuracy of financial and management information, and and improve information flow in the organisation by linking sales to accounts, and other departments hitherto the systems were disjoint. In addition, all the 50 respondents declared that the Oracle system has been implemented in the entire organisation.

To examine the antecedents of the implementation of ERP Systems, a Likert scale was used as follows: strongly disagree (1); disagree (2); uncertain (3); agree (4);

strongly agree. The responses obtained were weighted and a relative importance index was calculated which results are displayed in Table 4.4 below.

Table 4. 4 Antecedents of implementation of ERP systems

Antecedents of Implementation							**RII**	
	1	**2**	**3**	**4**	**5**	**Weight**	**RII**	**Rank**
The high level of overall management support for projects	2	1	4	13	30	232	0.921	1st
External consultants experience in client's business processes	3	2	8	16	21	207	0.829	2nd
External consultants' expertise and experience to the ERP implementation	2	4	6	14	24	202	0.804	3rd
Senior managers personal involvement	2	5	6	19	18	194	0.769	4th
Effectiveness of communication between management, employees and project team	2	2	18	16	13	190	0.752	5th
Positive responses of stakeholders to ERP implementation	2	14	7	7	20	180	0.713	6th

Source: Field data, 2018

The results in Table 4.4 indicate that the most dominant antecedent of the implementation of ERP systems is high level of overall management support for the project with a relative index of 0.921. This indicates that the overall support that management provide to ERP systems is very important in determining their success.

The results indicate further the second dominant antecedent of ERP implementation is external consultants experience in client's business processes with relative index of

0.829. ERP systems are implemented by external consultants for use by the business. For the external consultant to be able to implement the ERP effectively, he/she needs to understand the business processes of the client to know the clients peculiar needs.

The results also show that the third important antecedent in the implementation of ERPs is the external consultants' expertise and experience to the ERP implementation. The relative importance index for this was 0.804. The fourth most important antecedent in the results is senior managers personal involvement which had a relative importance index of 0.769.

The two least ranked antecedents are effectiveness of communication between management, employees and project team, and positive responses of stakeholders to ERP implementation which were fifth and sixth respectively with relative importance index of 0.752, and 0.713 respectively. This means that these antecedents relatively had less impact on the effectiveness of ERP implementation in organisations.

4.4 SUCCESS FACTORS OF ERP IMPLEMENTATION

This study also sought to evaluate the critical success factors in the implementation of ERPs in organisations. For this reasons responses obtained from respondents were ranked using the relative importance index as presented in Table 4.5.

Table 4. 5 Factors of implementation of ERP Systems

Success factors							**RII**	
	1	**2**	**3**	**4**	**5**	**Weight**	**RII**	**Rank**
Clear definition of the project chart, goals, roles, and impacts	2	2	18	16	13	189	0.830	1st
Access to financial resources	3	2	7	14	21	187	0.738	2nd
Realistic calendar of tasks and activities	2	4	6	11	24	171	0.713	3rd
Formal work methodology	2	5	6	19	18	156	0.678	4th
Solid infrastructures	2	4	6	14	24	149	0.661	5th
Team work, competencies, commitment	2	14	7	7	20	183	0.622	6th
Experienced managers who are fair	2	2	18	16	13	138	0.608	7th

Source: Field data, 2018

From Table 4.5 the most overriding success factor of the implementation of ERP systems is clear definition of the project chart, goals, roles, and impacts, which had a relative index of 0.830. This indicates that clear definition of the project chart, goals, roles, and impacts is very important in success factor of its implementation. The results indicate further the second most important success factor of the

implementation of ERP systems is access to financial resources. This success factor had a relative importance index of 0.738. In implementing ERP systems, organisations need to ensure that they have adequate financial resources to undertake project.

Table 4.5 also indicates that the third and fourth critical success factors in ERP implementation are realistic calendar of tasks and activities, and formal work methodology with relative importance index of 0.713 and 0.678 respectively. When businesses are implementing ERP systems they need to consider timelines, and methodology. The fifth ranked critical success factor with an index of 0.661 is solid infrastructures. Team work, competencies, commitment, and experienced managers who are fair were ranked as the least critical success factors in ERP implementation with index of 0.622 and 0.608 respectively.

4.5 CHALLENGES OF THE IMPLEMENTATION ERP SYSTEMS

A key objective of this study was to evaluate the challenges of the implementation of ERP systems in organisations. Respondents were asked to indicate the extent to which these challenges affect the effective running of the activities after the implementation of the ERP systems in their organisation. This section presents the results of the analysis of the data obtained as per the responses as presented in Table 4.6.

Table 4. 6 Challenges of the implementation ERP systems

Challenges of the implementation	Mean rank	Rank
Lack of organizational leadership/commitment from top management	3.71	1
Unavailability of skilled resources	3.52	2
Customization and confidentiality problems	3.13	3
Internal change management issues and resistance to change	2.58	4
Poor ERP selection	2.46	5
Inadequate end-user training	2.38	6
Ineffective communication	1.89	7
Expectations from ERP and cost benefit ideal	1.82	8

Source: Field data, 2018

Table 4.6 shows the mean ranks of the challenges of the implementation of ERP systems in hire purchase organisations. The results indicate that the highest ranked challenge of ERP implementation is lack of organizational commitment and leadership from top management which had a mean rank of 3.71.

Successful implementation of ERP systems require leadership and commitment from top management which ensures that the all resources (human and non-human) are provided, and various roles are defined. Hence, where such leadership and commitment from top management is lacking, the ERP of the ERP system will be ineffective. Ehie and Madsen (2005) have observed in their study that successful ERP implementation requires a comprehensive planning phase from top management that forms a project team with leadership roles, sets budget targets, and defines the project objectives and plan.

The results also showed that the second (mean rank 3.52) and third (mean rank 3.13) ranked challenges of the implementation of ERP systems in hire purchase organisations were unavailability of skilled resources, and customization and confidentiality problems respectively. Where the skilled labour required to execute the various activities in the ERP system implementation are unavailable, the project may not achieve its set goals. Furthermore, where the customization of ERP to the process of the organisation cannot be done, the ERP system may not achieve the goals of the implementation.

Internal change management issues and resistance to change was ranked fourth with mean rank of 2.58. Implementation of ERP systems means a change in the manner in which business activities are carried out. Where employees resist such change or where the change is not managed properly, the ERP system is likely to fail. This is consistent with Bitsini (2015) who found that change management firms adjudged about 70% of ERP to be unsuccessful as a result of poor change management.

On the other hand, ineffective communication, and expectations from ERP and cost benefit ideal, were the least ranked challenges scoring a means of 1.89 and 1.82 respectively. This implied that expectations from the implementation of ERP systems did not pose as a challenge to successful implementation of the system. Again, ineffective communication did not seem to pose as a major challenge to successful implementation of ERP systems.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATION

5.1 Introduction

In the previous chapter, data is analysed and discussions on the results were made. This chapter presents the summary, conclusions, and recommendations of this study. The summary is based on the findings made in this study from the data analysed. The conclusions are based on the summary, and objectives of this study. Recommendations are also provided including suggestions for future research work.

5.2 SUMMARY OF FINDINGS

The results of the analysis on data obtained from the responses as per the questionnaires revealed a few things about the implementation of ERP systems in Credit Mall. The study revealed that Oracle is the ERP system implemented in the organisation. It also revealed that all the functional areas like accounting/finance, sales and distribution, human resources, logistics/inventory control in the business used the system. It also revealed that the goal of the implementation of the ERP system was to improve accuracy of financial and management information, and improve information flow in the organisation by linking sales to accounts, and other departments which were before then disjoint.

The study has also revealed that the antecedents of ERP implementation in organisations in order of relevance include: high level of overall management support for projects; external consultants experience in the process of organisations' business; experience and expertise of external consultants to the ERP implementation; senior managers personal involvement; effectiveness of communication between

management, employees and project team; and positive responses of stakeholders to ERP implementation.

Furthermore, the study has indicated that the critical success factors in ERP implementation in hire purchase organisations in order of relevance include: clear definition of the project chart, goals, roles, and impacts; access to financial resources; realistic calendar of tasks and activities; formal work methodology; solid infrastructures; team work, competencies, commitment; and experienced managers who are fair.

The study has also revealed that the main challenges in the implementation of ERP systems in organisations in order of priority include: lack of organizational leadership/commitment from top management; unavailability of skilled resources; customization and confidentiality problems; internal change management issues and resistance to change; poor ERP selection; inadequate end-user training; ineffective communication; and expectations from ERP and cost benefit ideal.

5.3 CONCLUSION

From the summary presented above, certain conclusions can be drawn from on the objectives of the study. The first objective of this study was to determine the antecedents in the implementation of ERP systems in organisations. The study concludes that the antecedents in the implementation of ERP systems in organisations include high level of overall management support for projects; external consultants experience in client's business processes; external consultants' expertise and experience to the ERP implementation; senior managers personal involvement; effectiveness of communication between management, employees and project team;

and positive responses of stakeholders to ERP implementation. The antecedents are presented in order of priority as ascertained in this study.

The study's second objective was to ascertain the critical success factors of the implementation ERP systems in organisations. The study concludes that the critical success factors of the implementation ERP systems in organisations include: clear definition of the project chart, goals, roles, and impacts; access to financial resources; realistic calendar of tasks and activities; formal work methodology; solid infrastructures; team work, competencies, commitment; and experienced managers who are fair.

Finally, the study sought to establish the challenges of the implementation ERP systems in organisations. The study concludes that the challenges of the implementation ERP systems in organisations includes: lack of organizational leadership/commitment from top management; unavailability of skilled resources; customization and confidentiality problems; internal change management issues and resistance to change; poor ERP selection; inadequate end-user training; ineffective communication; and expectations from ERP and cost benefit ideal.

The findings and conclusions of this present study are consistent with Bitsini (2015) and Ehie and Madsen (2005) who established in their previous study that effective ERP implementation requires a comprehensive planning phase from top management that forms a project team with leadership roles, sets budget targets, and defines the project objectives and plan.

5.4 RECOMMENDATIONS

The following policy recommendations are suggested. Accompanying these recommendations are proposed areas for further research.

1. The management of Credit Mall and other hire purchase organisations need to provide continuous training for their staff on the use of the ERP systems upon implementation. This training will assists the staff to stay abreast with new features and updates made to the ERP system.
2. It has been identified in in this study that lack of leadership commitment in the implementation of ERP systems is the major challenge in its implementation. This study therefore recommends that the management of organisations need to demonstrate a high level of commitment to the implementation of ERP systems in terms of budget, time, and personnel to ensure that the system is implemented successfully.
3. The study has also identified that customization and a confidentiality problem is a major challenge in ERP systems implementation. It is therefore recommended that organisational management should ensure that the ERP systems they implement can easily be customized to suit their organisational processes.
4. Internal change management issues and resistance to change is also identified as a major challenge in the successful implementation of ERP systems in organisations. It is therefore recommended that management in organisations need to engage their employees on the ERP systems they intend to implement. This will reduce apprehension and enhance the effective of the project implementation.

5. The study recommends that further research should be conducted into ERP implementation in organisations other hire purchase, or using a larger sample than included in this study.

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APPENDICES

APPENDIX A: QUESTIONNAIRE

My name is Nana Adwoa Markin. I am a student of the Kwame Nkrumah University of Science and Technology School of Business, Department of Construction Technology and Managemen . This research instrument has been designed to enable me carry out a research on the **Implementation of Enterprise Resource Planning in Hire Purchase Organizations: Antecedents, Challenges and Critical Success Factors**. The purpose of the research is to provide an understanding of the factors which influence successful ERP implementations, and explore the challenges, and prospects ERP systems in hire purchase organisations. Any information provided will ONLY be used for academic research purposes, and it will be treated as HIGHLY CONFIDENTIAL.

Please respond to the by ticking or writing where appropriate your thoughts and experiences of the implementation of ERP systems in your organisation.

DEMOGRAPHIC CHARACTERISTICS

1. Highest level of education

   : [ ] HND [ ] BSc [ ] MSc [ ] PhD [ ] Other …….

2. What is your job role?.....

3. How long have worked with this organisation?

   a. 0 – 5 years [ ]
   b. 6 – 10 years [ ]

c. 11 – 15 years [ ]

d. 16- 20 [ ]

e. Above 20 years [ ]

ORGANISATION

4. Which ERP system (s) has your organisation implemented?

    a) SAP [ ]

    a) Oracle [ ]

    b) JD [ ]

    c) Edwards [ ]

    b) Other (specify)…….

5. What are the areas of implementation of ERP systems in your organisations? Tick as appropriate.

    a) Accounting/Finance [ ]

    b) Planning/Schedule [ ]

    c) Sales/Distribution [ ]

    d) Human Resource [ ]

    e) Logistics/Inventory Control [ ]

    f) Retail Banking [ ]

    g) Corporate Banking [ ]

    h) Investment Services [ ]

6. What was the goal of the ERP implementation?

   ……

   ……

   ……

   ……

7. Has the ERP system led to a higher need for change of the organization and processes?

   a) Yes [ ]

   b) No [ ]

   c) Uncertain [ ]

8. What is the scope extent of implementation of the ERP in organisation?

   a) Department/division [ ]

   b) Branch level [ ]

   c) Entire company [ ]

   d) Other (please specify) ……

ANTECEDENTS OF IMPLEMENTATION OF ERP SYSTEMS

On a scale from 1 to 5, please indicate the extent to which you agree or disagree with the following where: Strongly Disagree (1); Disagree (2); Uncertain (3); Agree (4); Strongly Agree (5).

	1	2	3	4	5
1. The overall level of management support in this project was quite high					
2. Senior managers personal involvement					
3. External consultants were experienced in our business processes					
4. External consultants brought considerable expertise and experience to the implementation of the ERP project					
5. There was effective communication between management, employees and project team					
6. Stakeholders showed positive responses to ERP implementation					

SUCCESS FACTORS

On a scale from 1 to 5, please indicate the extent to which you agree or disagree with the following as success factors of the implementation of ERP systems.

	1	2	3	4	5
1. Software alignment with the SME's business processes					
2. Improved data access,					
3. Increase in new customers,					
4. Reduced conversion time for prospective customers in placing customer orders,					
5. Increase in yearly revenues,					
6. Savings in recurring costs,					
7. Savings in maintenance costs					

CHALLENGES

On a scale from 1 to 5, please indicate the extent to which you agree or disagree with the following as challenges of the implementation of ERP systems.

	1	2	3	4	5
1. Lack of organizational leadership/commitment from top management					
2. Unavailability of skilled resources					
3. Customization and confidentiality problems					
4. Internal change management issues and resistance to change					
5. Poor ERP selection					
6. Ineffective communication					
7. Expectations from ERP and cost benefit ideal					
8. Inadequate end-user training					

SUGGESTIONS FOR IMPROVEMENT

In your own words, provide suggestions to improve the implementation of ERP system in your organisation.

……

……

……

Thank you for your time and effort.