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**TOPIC**

**AN ANALYSIS OF THE OPERATIONAL CHALLENGES FACED BY FOREIGN COMPANIES INVESTING IN ZIMBABWE ON ENHENCING PRODUCTIVITY, A CASE STUDY OF AYAN TRADING (pvt ltd).**

# CHAPTER ONE

## GENERAL INTRODUCTION

### 1.0 Introduction

This section serves to introduce the reader to the study and analysis of the operational challenges faced by foreign investment companies on enhancing productivity. A case of Ayan trading. The main anchor to the study analyses the relationship between the challenges faced by the foreign companies and the effect to decision making and performance. The chapter gives a preview outline of the sections and facets to be covered and the research framework. The section will focus on the background of the study owing to an overview of previous works researched and give a problem statement. The section will disintegrate to more specific problem areas which will prompt the objectives of the study that is the reason for embarking on such as research. Scope of the study along with limitations and delimitations will also be highlighted in the section. The section will also give a problem statement, research questions, statement of hypothesis and further highlights the significance of the study along with the assumptions made during the study. Definitions of the important terms will also be put forward and conclude the study by summarizing the organisation of the study.

### 1.2 Background of the study

According to Allen and Overy (2012), investment is the expenditure of capital in the expectation of future economic benefit. It means all kind of assets invested by one party in accordance with the laws and regulations of the other party in the territory of the latter. Particularly, though not exclusively, includes immovable and movable property and other property rights, equity and debt, claims to money, intellectual property rights and rights conferred by law or contract. Private investment is usually a result of foreign companies seeking a new market in other potentially profitable states. The introduction of the multi-currency regime in early 2009 stabilises the inflation with the united state dollar being the main trading currency and attracted quite a number of foreign companies (ZIA, 2012).

Following various strategies and methods towards economic recovery reacting to the 2008 economic turmoil and depression (CIA, World Factbook, 2014), attracting investment ensures economic aid and growth. Ayan Trading private limited was incorporated into

business on the 29<sup>th</sup> of August 2009 under the Companies Act chapter [24:03] as regulated by the Zimbabwe National Chamber of Commerce on foreign private direct investment with its mission to be the market leader in the supply and distribution of its grain products that is rice and spaghetti branded Mariana.

According to Elsevier (2012) the choice of internationalisation differs based on ownership. State controlled firms are attracted to countries with large sources of natural resources and risky political environment while private firms are market seekers to which the research focuses on. State owned firms are attracted to the risky political environment due to the relations on bilateral agreement that both states have establish. Africa as an investment destination has locations that offer investors some among most of the world's highest rates of return on investment (World Bank, 2010). The African continent attracts up to 5, 3% foreign direct investment of the Global flows (Sichei and Kinyondo, 2012). Meanwhile statistics shows that only 1% to 2% constitutes foreign direct investment to Sub Saharan Africa (UNIDO, 2011) because of the negative image the investment destination portrays. Challenges faced by foreign companies investing in another country emanate largely from three broad categories that are technical economic, political approach and cultural approach (Kaneva, 2011). The research will adopt these concepts in analysing the operational challenges faced by foreign companies investing in Zimbabwe as there has not been much exhaustion on the researches conducted in the Zimbabwean context.

From the period 2009 following a variety of events post 2008 economic hardships, series of fluctuations in sales due to poor and unmanageable operations caused by the above mentioned challenges that is technical economic challenges, political challenges and cultural social challenges. The technical economic approach encompasses policies, situations and factors such as cash crisis and liquidity problems, dollarization, indigenisation policy, outdated information technology, interest rate policies and insurance policies. The identified variables have a series of effects that can be researched on, parallel to the period they are taking place. Following the functional approach, it can be noted that a relationship between companies performance and non diversified risk can be established giving the researcher a proximate cause to carry out a diligent inquiry on the subject matter seeking research agendas rather than presenting a new empirical work.

Following the introduction of the dollarization in 2009 February most foreign firms desires to do business in Zimbabwe (ZIA, 2012). With advent of time it was discovered and it is argued

that dollarization is the root cause of liquidity problems facing Zimbabwe and its business environment. According to (Zimbabwean Mail, 2014), it is argued that the introduction of dollarization was put in place with no plans on how to grow liquidity. Because of the nature of the foreign currency which is one of the world strongest currencies it is easy to externalise the “dollar” against the country’s inability to stabilise the trade balance of payments (Financial Gazette, 2016). Externalization of funds creates a panic amongst firms as most companies will struggle to secure a sustainable working capital for the day to day operations of businesses leaving most companies with the option of borrowing funds externally. Foreign companies thus experience a challenge on borrowing funds in the host country through stringent measures and protocol such as immigration issues and citizenry on acquiring locally available funds. In the same vein the increasing demand on the locally available funds will attract an increase in the interest rates. Interest rate risk is that risk that fluctuating rates will unfavourably affect companies earnings, value of assets, liabilities and capital. Although they are contractual obligations on borrowed funds the nature and income payments on the liabilities depends on the performance of the asset portfolio (Kaplan, 2008). This tends to tighten and toughen financing decision of foreign companies faced by economic hardships at the expense of their vibrant business ideas and prototype management.

According to the Institute of Chartered Accountants of Zimbabwe (2013), the ease of doing business consistently declines due to short term debt available for private sector to fund investment locally. This means that big companies face challenges coming up with strategic projects that require huge sums of capital which can only be long term. The institute further elucidates that budgetary constraints to fund infrastructure by the public sector contributes to the operational challenges faced by the foreign companies investing in Zimbabwe. High costs of capital deter investment accompanied by access to that finance as a second impediment to success in business trailing political instability.

**Table 1.1 Zimbabwe ease of doing business rankings internationally**

<b>Year</b>	2010	2011	2012	2013	2014
<b>Overall ease of doing business</b>	<b>156</b>	<b>157</b>	<b>171</b>	<b>168</b>	<b>170</b>
Contract enforcement			112	111	118

Getting electricity			167	157	157
Getting credit			126	129	109
Paying taxes			127	134	142
Trading across borders	119	120	172	167	167
Investor protection	81	142	122	128	128

**Source:** Institute of Chartered Accountants of Zimbabwe (ICAZ) (2013)

Out of the 196 countries worldwide, the trends show the rankings of Zimbabwe pertaining to the ease of doing business. The overall ease of doing relatively continues increasing showing obstacles curtailing prospects of reaching full potential for investors in terms of production. Not just dollar value performance of the investor's portfolio but also the welfare, motivation and consistence.

Following 2013 post elections policies implementation, contract enforcement ranking fell seven places down due to lack of clarity on the empowerment policy which required potential investors to own 49% ownership and 51% to the local citizen.

Investor protection keeps dropping trailing the economic hardships of liquidity and shortages of cash. Of recent, the introduction of the surrogate currency in November 2016 saw the continued decrease in the volume of the United States dollar which facilitates ease of doing business across borders as a universally accepted currency. Failure of companies to comply with the policies places them under judicial management. The working conditions also results in liquidation if resistance is present. Some of the companies that are under judicial management or liquidation include David Whitehead, Belmont Leather, Hamilton properties, Kitchen Box, Universal Component, Steelnet and Gulliver.

**Table 1.2 Ayan Company comparative cashflow statement (extract)**

	2013	2014	2015
<b>Cashflow from operating activities</b>			
Operating income	150 000	112 800	111 000
Increase / Decrease in Inventory	-20000	-2000	-3000
Increase / Decrease in Trade receivables	12000	1400	-4000
Increase/ Decrease in Trade payables	-5000	3000	-11000
<b>Net Cashflow from Operations</b>	<b>137 000</b>	<b>115 200</b>	<b>99 000</b>

**Source:** Ayan trading yearly reports 2016

Analysing the extract of operating activities on the cashflow statement in table 1.1 above, the manager highlights that the company is condescendingly moving towards low income. The fluctuations in the operating income also have an effect to the net cashflow from the operating activities. The inventory sharply increases signalling danger due of the company being unable to sale all of its stock. The reason was promulgated by low demand due to low local consumer spending. The transmitting effect emanates largely from macro-economic conditions that results in low consumer spending.

Accounts receivables sharply decreases yearly as debtors continuously delays payments with significant volumes resulting to be bad debtors. Accounts payables pose a great threat to the foreign company since they fail to enjoy foreign companies' protection locally, Grant Thornton (2014). All creditors' payments are performed in time as the company fears penalties from local authorities regardless of the unsound business and economic environment characterized by low sales and delays in accounts receivables. Payments of creditors mean that a lot of cash is being forked out of the company at the expense of working capital need for the day to day running of the company.

**Table 1.3 Ayan Cashflow (extract)**

	2013	2014	2015
<b>Cashflow from financing activities</b>			
Additional capital	-	14 000	-
long term security	-1500	-1500	-1500
<b>Net Cashflow from financing activities</b>	<b>-1500</b>	<b>-12500</b>	<b>-1500</b>

**Source:** Yearly Executive Report 2016

From the extract above the finance manager showed that the working capital needs for the day to day running of the company was being financed by long term borrowing. Given the Zimbabwean financial status it is highly unsafe for companies to operate with high interest rates regardless of the soundness of the business environment. Additional capital which was brought in 2014 was a result of the regulations by the Zimbabwe Investment authority (2012) under the mandate that foreign companies with particular reference to Ayan trading should own capital equipment which would improve local infrastructure. The mandate came as an unexpected risk from which foreign companies live to tell the unpleasant easy of doing business in Zimbabwe

Cultural challenges have been identified as a major contributor influencing the way companies operates. Foreign engagement to an investment destination brings about different cultural connotations. Ayan trading faced adverse productivity by trying to employ Pakistanian business model on working hours and conditions whilst intersecting the local culture as regulated by the Labour Act.

The political dialogues have presented a subtle environment to foreign companies with noticeable low productivity and low efficiencies given the continuous uprisings and absenteeism. According to recent publications (herald, August 2016) the uprisings termed “tjamura” caused tension on the ease of doing business in Zimbabwe with the potential multi-millionaire investor Dangote of Dangote Holdings mentioning the concern to stabilize the political environment in order for the host country that is Zimbabwe to attract foreign direct investment.

### **1.3 Problem statement**

Direct foreign investment in Zimbabwe have been applying and assessing legal investment right. Despite current prevailing operational challenges, it is still not clear as to the likely operational challenges faced by foreign investment companies on enhancing productivity. This is the reason that prompter the researcher to carry out a research on an operational challenges faced by foreign investment companies on enhancing productivity

### **1.4 Objectives of the study**

1. To assess the impact of operational challenges on market production

2. To establish the effect of operational challenges on public production
3. To assess the effect of operational challenges on house hold production

## **1.5 Hypothesis testing**

### **Objective 1**

H1 There is a relationship between operational challenges and market production

H0 There is a relationship between operational challenges and market production

### **Objective 2**

H2 There is a relationship between operational challenges and public production

H0 There is a relationship between operational challenges and public production

### **Objective 3**

H3 There is a relationship between operational challenges and household production

H0 There is a relationship between operational challenges and household production

## **1.6 Significance of the study**

### **➤ To Theory**

The study seeks to establish accurate relationships between the external variables causing operational challenges faced by foreign companies investing in Zimbabwe. This will establish comprehensive assessment of what stimulates growth and profitability of the concerned foreign companies and highlight related policy issues by the Zimbabwean government on the easy of doing business. Common logic suggest that the larger the scope of the data available for analysis, the larger the number of useful patterns that can be discovered and developed.

Previous studies conducted in India by Bhavya Malhotra (2014) shows that the significance of the foreign direct investment challenges carried out emphasises the governmental policies in determining economic growth and easy of doing business rather than the economic setup such as interest rates and general competitiveness to which this research will focus on in the Zimbabwean context.



➤ **The company**

The study aims to establish a relationship between the economic variables causing operational challenges being faced by foreign companies investing in Zimbabwe in the wholesale sector. The consolidation of the identified factors will assist the company in easily identifying factors causing operational challenges and the recommendations provided.

Key economic issues will be addressed thus giving informed information to managers as well as concerned stakeholders. Solutions and mollifying measures can be deduced to address the issues concerned in the industry and the risk that affect their investment decisions.

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The research will add more statistical patterns from which if observed will carry material meaning. The current board of knowledge will increase the volume of data relating to investment from which generations to follow would refer when they intend to do a research in line with investment.

**1.7 Assumptions of the study**

- The operational challenges faced by the selected foreign companies represent all investments in the same industry in Zimbabwe.
- No companies close during the period of the study.
- The government is keen to accelerate the easy of doing business to promote investment.
- Interest rates will not change during the course of the study.
- The policies implemented have no political connotations.

**1.8 Limitations of the study**

- Data on major macroeconomic variables such as interest rates and gross domestic product was not readily available and it was not regularly updated. The available information was longitudinal in nature to which making informed conclusions might be dealing with already addressed issues.

Solution

The study will illicit the dollar value for external funds used in funding capital projects or working capital by looking into statement of financial position of the case study companies which will represent other foreign firms in the wholesale sector.

- Foreign companies have various incentives to their advantages which gives them technical advantage from which such information they are unwilling to dispose.

Solution

The success of the research will be anchored on the ability to follow the transmitting success or failure of the business models employed rather than studying the model per se from which little information was given.

- Information concerning all foreign investment is protected by state interest and research is only successful through precautionary approaches.

Solution

An equally good and informed research will rely on reference to previous studies and primary data research to a specific company as a case study.

- Researching on governmental policies and how they affect foreign direct investment has political connotations.

Solution

The study will focus only on the effects that have manifested and affected business operations of the concerned companies rather than the theoretically implied effects.

## **1.9 Delimitations**

### **➤ Time**

The study seeks to analyse the operational challenges faced by foreign companies investing in Zimbabwe. With much concentration from the period 2011 to 2016 where efforts to attract private investment is argued to be economic growth strategies.

### **➤ Geographical**

The study will geographically put emphasis to the Manicaland region case study on Ayan trading private limited arguing on the perception that regions with entry ports are likely to be self-sufficient in doing business yet the market is countrywide with most governance on all businesses is centralized in Mashonaland.

### ➤ **Conceptual**

The research will focus on foreign direct investment where the investment is controlled and funded by the owner of the company under trade terms by the local government. The study will not put emphasis on productivity of the investing company where the investment will be influenced largely by the country of destination.

## **1.10 Definition of terms**

**Investment:** It is the productive employment of capital now in order to receive financial compensation in the future.

**Risk:** This is the objectified uncertainty about the occurrence of an undesirable event (Ritchie and Marshall 1993:142).

**Internationalization:** It is the act or process of conversion, translation or making something or a product suitable for the international market.

### **1.10.1 List of acronyms**

**ICAZ-** Institute of Chartered Accountants of Zimbabwe

**FDI-** Foreign direct investment

**ZIA-** Zimbabwe investment association

## **1.11 ORGANISATION OF THE STUDY**

The chapter provided the introductory part of the study from which the research is anchored on. It gave the background of the study, objectives of the study, research questions, assumptions and limitations of the study. Chapter two will review the theoretical and conceptual literature review of the research as well as the related literature of foreign investment. Chapter will further the study by providing the research methodology. Chapter

four will analyse data as well as its presentation and discussion of the data. Chapter five will conclude the study providing research findings, conclusions and recommendations.

## **CHAPTER 2**

### **LITERATURE REVIEW**

#### **2.0 Introduction**

This chapter review literature reviews literature on an analysis of operational challenges faced by investing companies on production in Zimbabwe. The chapter starts by theoretical review on operational management and followed by empirical evidence. The chapter also demonstrates literature on the objectives under study. The chapter is going to be concluded by chapter summary.

#### **2.1 Theoretical review**

Operations management is an area of management concerned with designing and controlling the process of production and redesigning business operations in the production of goods or services (Robbins and Tylor 2014). It involves the responsibility of ensuring that business operations are efficient in terms of using as few resources as needed and effective in terms of meeting customer requirements. It is concerned with managing the process that converts inputs (in the forms of raw materials, labor, and energy) into outputs (in the form of goods and/or services). Operations management is concerned with managing the operations function in an organization. Operations is one of the major functions in an organization along with marketing, finance and human resources. The operations function requires management of both the strategic and day-to-day production of goods and services as postulated by (Freidman et al 2013)

According to James et al (2015), operational management in organization requires strategic planning and material handling in ensuring that losses are minimized in the organisation. Organisational challenges may affect performance and management need to foster good management techniques to reduce losses (Keller and Henry 2013). Ford Motor car assembly line: the classical example of a manufacturing production system as part of the firm's operational management. In managing manufacturing or service operations several types of decisions are made including operations strategy, product design, process design, quality management, capacity, facilities planning, production planning and inventory control.

Each of these requires an ability to analyze the current situation and find better solutions to improve the effectiveness and efficiency of manufacturing or service operations (Wellington et al 2015)

### **2.1.2 Resource based view theory**

The resource-based view (RBV) emphasizes the firm's resources as the fundamental determinants of competitive advantage and performance. It adopts two assumptions in analyzing sources of competitive advantage (Barney and Barney, 2013). First, this model assumes that firms within an industry may be heterogeneous with respect to the bundle of resources that they control. Second, it assumes that resource heterogeneity may persist over time because the resources used to implement firms' strategies are not perfectly mobile across firms (Aaron et al 2014). Resource heterogeneity is considered a necessary condition for a resource bundle to contribute to a competitive advantage.. The RBV has developed very interesting contributions, among others, with regard to imitation with the concepts of isolating mechanisms (Rumelt, 2014), time compression diseconomies, asset mass efficiencies, and causal ambiguity (Dierickx and Cool, 2015). Recently, much resource-based research has focused on intangible assets, which include information (Sampler, 2013), knowledge (e.g. Spender, 2015), and dynamic capabilities (Teece, Pisano and Shuen, 2013).

Scrutiny and assessment have pointed to a number of unresolved problems in the resource-based approach. Some of these problems justify the approach adopted in this paper and indicate ways to integrate the RBV and the firm's competitive environment. These criticisms relate to the unit of analysis, the circularity or tautological nature of the resource-based should be firms in lieu of notions such as 'opportunism' and 'moral hazard'. He concludes that knowledge-based theories may help shed light on issues relating to the boundaries and internal organization of the firm. Theory, the exogenous nature of value, the neglect of the environment, the condition of heterogeneity, and the behavioral assumption underlying the condition of non-imitability (Steve and Jones 2014).

Foss and Gill (2014) states that the resource-based perspective does not escape the general problem of finding the appropriate unit of analysis. Most contributions within the RBV take the individual resource as the relevant unit of analysis to study competitive advantage. However, Foss (2014) points out that this choice may only be legitimated if the relevant resources are sufficiently well-defined and free-standing. If, in contrast, there are strong

relations of complementarity and cospecialization among resources, it is the way resources are clustered and how they interplay and fit into the system that is important to the understanding of competitive advantage. Foss (2015) recognizes that the concepts 'capabilities' and 'competences' aim perhaps at grabbing this clustering and interplay. The conceptual framework takes this problem into account by relating competitive advantage to strategy rather than to individual resources.

Porter (1991) and Priem and Butler (2014) assert the circularity of the resource-based view. Priem and Butler argue that Barney's (2015) statement "if a resource is valuable and rare, then it can be source of competitive advantage" is necessarily true if the concepts 'valuable' and 'competitive advantage' are defined in the same terms. Petered and Barney (2013) answer this criticism by proposing a more narrow definition of competitive advantage, no more in terms of profitability advantage but in terms of competitive edge

Exogenous determination of value, Priem and Butler (2014) conclude that the resource-based view has contributed very little to the explanation or prediction of competitive advantage and recommend that scholars address core connections between resources and the environment because, while resources represent what can be done, the competitive environment represents what must be done to compete effectively in satisfying customer needs. Writing about the neglect of the environment, Foss (2015) says that the RBV needs not restrict its domain of application to the firm because it may in fact add some more fine-grained analysis to the understanding of industry-level competitive dynamics, for instance, by directing attention to the resources that underlie barriers to mobility and entry. Thus, bringing together the firm's resources and the competitive environment in a single framework could help to understand how resources contribute to performance (Priem and Butler, 2012) and how resources influence competitive dynamics (Foss, 2014).

While Peteraf and Barney (2014) assume heterogeneity and do not inquire into its origin, some authors argue for the development of an endogenous theory of heterogeneity. Mahoney and Pandian (2013, p. 374) propose either to integrate the RBV with the organizational economics and dynamic capabilities approach or to utilize the equilibrium models of industrial organization in order to explain the origins of heterogeneity. Foss and Knudsen (2013) assert that uncertainty and immobility (i.e., sunk cost commitments) should be the only conditions to enter the study of sustained competitive advantage as exogenous elements whereas a host of additional conditions are candidates for inclusion as endogenous elements.

They include input heterogeneity in this unbounded list of additional conditions that give shape to competitive advantage. Many of Foss and Knudsen's (2003) additional

Priem and Butler (2014) fully acknowledge that the resource-based view has contributed to the explanation and prediction of the sustainability of competitive advantage by identifying the conditions that entail sustainability. Conditions relate to the competitive environment, thus supporting my claim for the integration of the competitive environment and the RVB in a single framework (Bruno et al 2014).

Finally, Gimeno (2014, p. 101) states that the resource-based research "has emphasized the lack of ability of imitators or rivals to erode the market position of a firm as a necessary condition for sustainability, implicitly assuming that any rival capable of eroding the position will do so, and cannot be restrained from pursuing that course of action". Extending my framework to grasp multimarket reality will allow me to consider, in analyzing sustainability, both the ability and the motivation as drivers of competitive behaviors.

Porter's (1980) framework builds on the structure-conduct-performance (SCP) paradigm from industrial organization economics. The essence of this paradigm is that the firm's performance in the marketplace depends critically on the characteristics of the industry in which it competes, i.e., the structure (Porter, 1981). In a (limited) move away from the traditional S-C-P paradigm, Porter (1980) acknowledges the role of firms in formulating appropriate competitive strategy to achieve superior economic performance, competitive strategy that may change the industry rules in the firm's favor (for instance, firm can choose strategies that affect or deter entry into their industries). Nevertheless, in Porter's (1980) work, the source of profits is not to be found in the firm but rather in the structure of the industry, especially the nature and balance of its competitive forces (Schoemaker, 2014).

Porter (1980) proposes an analytical framework to assess the attractiveness of an industry, "the group of firms producing products that are close substitutes for each other" (Bruce et al 2015). He identifies five basic competitive forces seen as threats to the firm profits: threat of entry, threat of substitution, bargaining power of buyers, bargaining power of suppliers, and rivalry among current competitors. The collective impact of these five forces, the underlying structure of an industry, determines the intensity of industry competition and the ability of firms in the industry to make profits. Porter describes competitive strategy as taking defensive and offensive actions to cope successfully with the five competitive forces.



The adoption of the SCP paradigm in strategic management and as basis of Porter's (1980) five forces model has raised two important criticisms. First, the unit of analysis in the SCP-based models being the industry rather than the firm these models cannot explain intra-industry performance differences among firms. However, empirical studies have found significantly higher firm-effects than industry-effects on performance (see, for instance, Schmalensee, 2015, Rumelt, 2013, McGahan and Porter, 1997, Hawawini, Subramanian and Verdin, 2013). A second criticism (linked to the first one) concerns the managerial implications of the SCP logic. According to Porter's in James (2014) five forces framework, firms should enter and operate only in attractive industries (i.e., industries with low levels of threat and high levels of opportunity). However, Porter's framework focuses on what makes some industries or positions within industries more attractive (cross-sectional problem) and not on why some firms are able to get into advantageous positions (longitudinal problem). While the level of threat and opportunity in an industry influences firm performance, the returns from entering and operating in an industry cannot be evaluated independently of the firm's resources and capabilities.

Another criticism to Porter 1980's work is that it overemphasizes competition to the detriment of cooperation. Indeed, the five forces framework builds on Porter's conviction that the source of profits is primarily to be found in the nature and balance of competition. In consequence, relationships with competitors, customers, and suppliers are reduced to conflicts for profits. Porter's strategy is about positioning a business in a given industry structure, while "the reality of business during the 1990s is that industry structures are far from stable and are undergoing major transitions" (Prahalad and Hamel, 2014, p. 10). "Traditional industry boundaries are blurring as increasingly many industries converge or overlap, especially in information technology-related industries" (Sampller, 2012, p. 344). In an increasingly dynamic environment a static snapshot of the industry may no more be the right tool for formulating strategy. Furthermore, the primary focus of Porter's strategic analysis is the business unit. This unit of analysis is adequate if corporate strategy is seen as portfolio strategy but less appropriate if when the corporation is viewed as a bundle of resources (Stones et al 2013).

### **2.1.2 Scientific management theory**

Scientific management is a theory of management that analyzes and synthesizes workflows. Its main objective is improving economic efficiency, especially labor productivity. It was one

of the earliest attempts to apply science to the engineering of processes and to management. One early approach to scientific management is known as Taylorism after its founder (Basel et al 2015). Its development began in the United States with Frederick Winslow Taylor in the 1880s and '90s within the manufacturing industries. Its peak of influence came in the 1910s;(Jun et al 2012), by the 1920s, it was still influential but had entered into competition and syncretism with opposing or complementary ideas.

Although scientific management as a distinct theory or school of thought was obsolete by the 1930s, most of its themes are still important parts of industrial engineering and management today (Lillian 2014). These include analysis; synthesis; logic; rationality; empiricism; work ethic; efficiency and elimination of waste; standardization of best practices; disdain for tradition preserved merely for its own sake or to protect the social status of particular workers with particular While the terms "scientific management" and "Taylorism" are commonly treated as synonymous, the work of Frederick Taylor marks only the first form of scientific management, followed by other approaches; thus in today's management theory, Taylorism is sometimes called, or considered a subset of, the classical perspective on scientific management. Taylor's own names for his approach initially included "shop management" and "process management". When Louis Brandeis popularized the term "scientific management" in 1910,(Keller and Gill 2013). Taylor recognized it as another good name for the concept, and adopted it in his 1911 monograph.

Taylor rejected the notion, which was universal in his day and still held today, that the trades, including manufacturing, were resistant to analysis and could only be performed by craft production methods. In the course of his empirical studies, Taylor examined various kinds of manual labor. For example, most bulk materials handling was manual at the time; material handling equipment as we know it today was mostly not developed yet (Ian et al 2012). He looked at shoveling in the unloading of railroad cars full of ore; lifting and carrying in the moving of iron pigs at steel mills; the manual inspection of bearing balls; and others. He discovered many concepts that were not widely accepted at the time. For example, by observing workers, he decided that labor should include rest breaks so that the worker has time to recover from fatigue, either physical (as in shoveling or lifting) or mental (as in the ball inspection case). Workers were allowed to take more rests during work, and productivity increased as a result (Trish and Donald 2015)

Flourishing in the late 19th and early 20th century, scientific management built on earlier pursuits of economic efficiency. While it was prefigured in the folk wisdom of thrift, it favored empirical methods to determine efficient procedures rather than perpetuating established traditions (Lisa and Jones 2015). Thus it was followed by a profusion of successors in applied science, including time and motion study, the Efficiency Movement (which was a broader cultural echo of scientific management's impact on business managers specifically), Fordism, operations management, operations research, industrial engineering, management science, manufacturing engineering, logistics, business process management, business process reengineering, lean manufacturing, and Six Sigma. There is a fluid continuum linking scientific management with the later fields, and the different approaches often display a high degree of compatibility (Freeman et al 2014).

Subsequent forms of scientific management were articulated by Taylor's disciples, such as Henry Gantt; other engineers and managers, such as Benjamin S. Graham; and other theorists, such as Max Weber (Donald and Norman 2015). Taylor's work also contrasts with other efforts, including those of Henri Fayol and those of Frank Gilbreth, Sr. and Lillian Moller Gilbreth (whose views originally shared much with Taylor's but later diverged in response to Taylorism's inadequate handling of human relations).

Taylorism, in its strict sense, became obsolete by the 1930s, and by the 1960s the term "scientific management" was no longer favored in contemporaneous management theory. However, called by other names, many aspects of scientific management have persisted in later management theories. In blending art, academic science, and applied science, modern management practice includes Taylorism as one of its ancestors (Morgan and Steve 2013). The process of improving on Taylorism's view of human resources began as soon as Taylor's works had been published (as evidenced by, for example, James Hartness's motivation to publish his Human Factor in 1912, or the Gilbreths' work), and each subsequent decade brought further evolution.

In management literature today, the term "scientific management" mostly refers to the work of Taylor and his disciples ("classical", implying "no longer current, but still respected for its seminal value") in contrast to newer, improved iterations of efficiency-seeking methods (Williams and Strive 2015). Taylorism is often mentioned along with Fordism, because it was closely associated with mass production methods in factories, which was its earliest application. Today, task-oriented optimization of work tasks is nearly ubiquitous in industry.

skill sets; the transformation of craft production into mass production; and knowledge transfer between workers and from workers into tools, processes, and documentation

### **2.1.3 Total quality management**

Total Quality Management (TQM) is a strategy that embodies the belief that the management process must focus on integrating the customer driven quality throughout an organisation (Stah, 2012). It stresses continuous improvement of product quality and service delivery while taking into cognisance the reality that in order to achieve this goal, employee relations needs to be equally addressed, as the customer cannot get the satisfactory service delivery from ill- motivated employees (Lewis, 2014)

The philosophy underlying the implementation of a TQM strategy is to see organisational customers and clients as the vital key to organisational success. Organisations with TQM strategy see their business through the eyes of their customers and clients and then measure their organisations performance against customer/client expectations (Fran, 2012). It therefore follows that organisations that want to be successful with the implementation of TQM strategy must evaluate its operations through the eyes of its customers by strengthening and exploring all avenues including the people (employees)that make up the organisational structure(Stah,2013).

According to Balogun and Hope-Hailey (2014), strategy should be seen as a system/process, that should be able to engender in the employees a culture of total commitment to the vision and mission of the organisation, and thus, a functional strategy that embodies the collective contribution of various components that make up the organisational hierarchy should be such that compliment each other in the implementation of a strategy. For a strategy to accomplish the desired goals and objectives of an organisation, effective strategy implementation mechanisms should be put in place and one of the most potent ways for achieving this is by exploiting the internal capabilities of the organisation in the form of its employees as a veritable asset while encompassing various HRM initiatives, such as recruitment and selection, training and development, reward systems, performance appraisal , the need for enhanced employee voice systems , employee engagement and greater line manager involvement with management ,because they should be seen as a bridge between the employees and management for enhanced psychological contract, which will in turn facilitate greater employee commitment (Murphy et al, 2012).

Quality products or services need not only to conform to consumers requirements; the product/service must be acceptable. Effective TQM strategy entails that the product/service must go beyond acceptability for a given price range. For example, rather leaving customers/clients satisfied that nothing went wrong with the product or service, a product/service should give the customers/clients some delightful surprises, or provide unexpected benefits (Collard, 2015). This means, therefore, that product/service quality assurance requires more than just meeting customers/clients minimum standards. The level of product quality is the degree, to which a product/service is equal to or greater than customers/clients expectations,

Thus, for organisations who desire to have TQM strategy in place and make it work effectively, should as a matter of principle endeavour to be positively disposed to the idea of quality management philosophy in their organisation. According to Haigh and Morris (2012), quality management is an ingredient towards adequate quality delivery to customers .Quality management involves: management systems, delivery, quality, cost, technology and of course the employees, because according to Donaldson, (2011), no matter how perfect a strategy might be, it depends on people for implementation. All these various components of quality management when effectively harnessed will result in customer satisfaction; where the intention is not to stop at a point in the process of implementation, but rather a continuous improvement of the mechanism for a sustainable competitive advantage (SCA), through the use of employees as organisations effective internal assets for a successful implementation (Haigh and Morris, 2012).

The world experienced the quality revolution in the early 1990's. From that instance organisations were improving in overall quality of the organisation. The companies around the world competed with their quality of products and services, price and delivery. Organisations believed that by improving the quality, they can achieve lower cost, fewer failures and better marketability (Abel et al 2014).

In this period total quality management became popular. TQM is applied in organisations to improve its effectiveness, flexibility and competitiveness, by improving the overall quality of the organisation (Lillian and Bruno 2015). It is focused mainly on continuous improvement. TQM is nothing but a philosophy and guide to organisations, which helps them in ways towards continuous improvement. TQM is a combination of system of systems. All the companies have not achieved competitive advantage or benefits using TQM is because of

implementation and usage in the organisation (Weston et al 2016). To be successful with TQM the indicators which are to be achieved by an organisation are the leadership, continuous improvements, internal or external co-operation, customer focus, learning, employee fulfilment and process management.

According to Hansson and Klev; (2013) TQM can be defined as a management system, which consists of three interdependent units, namely core values, techniques and tools. But the definitions for total quality management are vague. The aim of TQM is Zero defect and it mainly emphasis on quality. The core values of TQM which will lead to better quality in the organisation is summarised from the authors (Boulter and Bendell, 2002, Ehresman, 2015, Ghobadian and Gallear 2015, Hansson and Klefsjandouml; 2013) it is divided into three parts, first the whole organisation has to committed and work towards common goal i.e. continuous improvement. Secondly the customers are to be focused, through better satisfaction in the products and services. The decisions made with regard to customers are to be given the highest priority by top level management.

Environmental management and quality management are parallel to each other. They have common factors like zero defects and no wastage and the process of implementation with corrective and preventive actions (Troy and Norman 2014). But some basic value does not integrate, exactly with each other. QMS mainly concentrates on consumer requirements and on the other had EMS focuses on the environment. According to Chinn a new concept was formed in late 90s which was named as QEMS which means quality and environment management system. It has stated the common elements they worked upon. They are planning, objectives, management responsibility, communication, training, control of records and many others.

Total quality management is the way to fix them. As benchmarking is a quality improvement process. It is a systematic process of searching and monitoring the best practices in the sector. Benchmarking as a tool of total quality management has been the concept of imitating the best practices in the industry (Jeff and Marrow 2014). Organizations have to achieve cost benefits, better operations and better environment by which it induces the company to learn quickly and cheaply from adopting the best practices and performance standards from other companies in order to get better competitive advantage over its competitors. This can be extended anywhere because the ultimate goal is to be best in class.

Total quality management is commonly used tool in the organisations. This technique can be implemented in all sectors and it is due to increasing competitiveness. Benchmark means to a unit on a scale for measurement. It was a fashionable concept for the large manufacturing companies which predominantly uses quantitative economic parameters, such as inventory turnover, set-up times, lead time, direct labour time or working time, return on sales, return on equity are measured.(Miller et al.,2012). Nowadays benchmarking is used everywhere and it is used to measure any process, activity, procedure in an organisation which may be of products or services.

Many authors and literatures have given many different forms of definitions for benchmarking. Marosszeky and Karim (2014) total quality management and benchmarking means comparing the practices, operations, results of an organisation with the best organisation in the sector and adopt and practice the techniques used in there to improve one's own organisation. And it focuses on continuous improvement, in quality and helps to learn from the competitors. Through which the faults and breakthroughs in the organisation can be easily identified and systematically dealt with (Trish and Blessing 2014). It also helps in improving the overall quality and business environment carried out through learning from each other. It forms a continuous and systematic improvement in an organisation's processes, products and services which are being monitored and adopted from the best practices globally or nationwide or in a particular sector.

Benchmarking is used to achieve and maintain high level of competitiveness as it is measured by total quality management. It monitors the continuous improvement by the process of measuring the products, services and business practices against the best practices in the industry. The organisations strengths and weakness can be easily identified and measured with the best and toughest competitors in the industry (Edwards et al 2016).

Best practices is finding and using the best ways to achieve the desired objectives in the organisation. It is done by imitating the practices and processes of the organisation who are leaders in the sector and measuring the ways it worked with. Benchmarking can be done in five steps for an organisation. Firstly the required data are collected in a planned manner from the organisation and the data is converted into a report format, which make it easy for analyzing the situation (Gray, 2015). After creating a report the gaps are to be detected and corrective action has to be implemented to fill the gaps. When the gaps in the organisation are

corrected, review has to be done in regular intervals and reported. It is compared with best practice in the industry.

#### **2.1.4 Knowledge base theory**

The knowledge-based theory of the firm considers knowledge as the most strategically significant resource of a firm (Lloyd et al 2014). Its proponents argue that because knowledge-based resources are usually difficult to imitate and socially complex, heterogeneous knowledge bases and capabilities among firms are the major determinants of sustained competitive advantage and superior corporate performance (Bruce and Proud 2012).

This knowledge is embedded and carried through multiple entities including organizational culture and identity, policies, routines, documents, systems, and employees. Originating from the strategic management literature, this perspective builds upon and extends the resource-based view of the firm (RBV) initially promoted by Penrose (2012) and later expanded by others (Wernerfelt 2014, Barney 2011, Conner 2014).

Although the resource-based view of the firm recognizes the important role of knowledge in firms that achieve a competitive advantage, proponents of the knowledge-based view argue that the resource-based perspective does not go far enough. Specifically, the RBV treats knowledge as a generic resource, rather than having special characteristics (Donald and Freidman 2014). It therefore does not distinguish between different types of knowledge-based capabilities. Information technologies can play an important role in the knowledge-based view of the firm in that information systems can be used to synthesize, enhance, and expedite large-scale intra- and inter-firm knowledge management (Alavi and Leidner 2013).

Whether or not the Knowledge-based theory of the firm actually constitutes a theory has been the subject of considerable debate. Foss (2016) and Phelan and Lewin (2014). According to one notable proponent of the knowledge-based view of the firm (KBV), "The emerging knowledge-based view of the firm is not a theory of the firm in any formal sense" (Grant, 2012, p. 135).

## **2.2 Empirical evidence**



A survey on how students perceive the benefits of a required operations management course with a manufacturing focus was conducted by Ala (2013). The key benefits identified by the author were learning operations management terminology, career enhancement, and broadening of skills in order to be effective managers. The study also suggested that students were unaware of the content of operations management courses before they took them. Smith and Cox (2014) took the position that manufacturing focused programs were designed by faculty without considering the student point of view of the subject material. They stressed that academia needed to make manufacturing more appealing as a career, and to teach students how to manage production processes with the use of computers.

Helms (2011) conducted a longitudinal survey of students taking a core MBA operations management course taught from a strategic focus. Initial attitudes towards operations management were mainly influenced by peers, co-workers, family members and teachers. Students felt operations management careers were not a white-collar profession and had limited advancement possibilities. Upon completion of the course students had developed a better understanding of the operations management profession, but opinions on career options did not change significantly. Desai and Inman (2014) conducted a longitudinal study of undergraduate and graduate students taking a required operations management course taught with a heavy emphasis on manufacturing and an even mix of concept and technique-oriented topics.

They found that undergraduates had a more favorable impression of operations management at the end of the course than did graduate students. Undergraduates who would have enrolled in the course if it were not required rose from 20.0% to 33.9%. The percentage of graduate students who would have enrolled in the course if it were not required declined from 52.2 % to 50.0%. Another method to assess student input is through teacher evaluations, which are used to evaluate faculty performance and to assess how much students say they have learned. Biggs et al. (2011) pointed out that the Introductory OM course may be unpopular with students, and this can have a negative impact on instructor evaluations. The authors found that ratings were based more on non-learning factors such as controlling one's own class behavior, being prepared in class, answering questions and being approachable.

Unfortunately, this missed the very point of an evaluation, which is to assess the ability of the instructor to help and motivate a student to learn. Two key observations from the studies on student views of OM are that students are unaware of the subject matter taught in OM courses

and that careers in OM are not appealing. The Ala (2013) and Desai and Inman (2014) studies showed that the required introductory OM course is critical in helping students develop a more knowledgeable understanding of what the field of OM is about.

## **Japan**

According to Mathews (2013) he conducted a research in Japan on operational challenges faced by investing companies on production in the mining sector. The findings indicated that 250 mines were experiencing operational management challenges as result of incompetence and poor material handling, this forced the closure of 120 mines as a result of operational challenges. Water has always been crucial for the mining industry and its importance is increasing exponentially. As volume reference, according to USGS an estimated 4,020 million gallons per day was required for mining purposes (2015). This amount represents 1% of the total industry water usage.

According to Lillian (2014), some of the operational problems encountered Availability: Some mines occur in areas under “water stress” (basically areas without plenty of access to water resources). Some mining operations under water-stressed areas are already using sea water (via desalination plants) to overcome this challenge. Management: A water balance and/or simulation model can be quite complex to deliver a proper water management strategy, including correct predictions. An interconnected system is needed as models should account for consideration of the sources (ground water, surface water, public supply), complete water usage (process control, dust control, recycling, potable water) and external factor patterns hydrologic environment, evaporation, precipitation, snow melting (Lisa and Norman 2014). Critical areas: Subjects like tailings management and AMD (Acid Mine Drainage) deserve special attention and add complexity to any mining process with such operations and Regulations: More strict regulations will ask for better water footprint monitoring, quality control reporting, contamination control and mine closure strategy.

## **India**

The growth of ecommerce volumes in India is attracting the attention of players around the globe. India, the second most populous country in the world, is home to 1.2 billion people. To put that number into perspective, consider this: the combined populations of Germany, UK, France, Italy, Netherlands, Belgium, and Greece equal one-fourth the population of India alone! Despite lower per-capita purchasing power, this still makes India one of the most

attractive emerging markets for ecommerce. But India is far from being a bed of roses. Here are the top 8 challenges that ecommerce businesses face in India.

Indian customers return much of the merchandise they purchase online. Ecommerce in India has many first time buyers. This means that they have not yet made up their mind about what to expect from ecommerce websites. As a result, buyers sometimes fall prey to hard sell. But by the time the product is delivered, they demonstrate remorse and return the goods (Freidman et al 2013). Though consumer remorse is a global problem, it is all the more prevalent in a country like India, where much of the growth comes from new buyers.

Returns are expensive for ecommerce players, as reverse logistics presents unique challenges. This becomes all the more complex in cross-border ecommerce, though the total number of mobile phone users in India is very high, a significant majority still use feature phones, not smartphones (Keith et al 2014). So, for all practical purposes this consumer group is unable to make ecommerce purchases on the move. Though we are still a couple of years away from the scales tipping in favor of smartphones, the rapid downward spiral in the price of entry-level smartphones is an encouraging sign. I expect that the next few quarters will witness announcements of new smartphones in India at the \$30-40 price point. That should spur growth in smartphone ownership. If you place an online order in India, you will quite likely get a call from the logistics company to ask you about your exact location. Clearly your address is not enough. This is because there is little standardization in the way postal addresses are written. Last mile issues add to ecommerce logistics problems.

The logistics challenge in India is not just about the lack of standardization in postal addresses. Given the large size of the country, there are thousands of towns that are not easily accessible. Metropolitan cities and other major urban centers have a fairly robust logistics infrastructure (Peter and Steve 2013). But since the real charm of the Indian market lies in its large population, absence of seamless access to a significant proportion of prospective customers is a dampener. The problem with logistics is compounded by the fact that cash on delivery is the preferred payment option in India. International logistics providers, private Indian companies, and the government-owned postal services are making a valiant effort to solve the logistics problem. If someone could convert the sheer size of the problem into an opportunity, we might soon hear of a great success story coming out of the Indian logistics industry (Jonh and Morgan 2013).

Overfunded competitors are driving up cost of customer acquisition, the vibrancy in the Indian startup ecosystem over the past couple of years has channelled a lot of investment into the ecommerce sector (Wellington et al 2012). The long-term prospects for ecommerce companies are so exciting that some investors are willing to spend irrationally high amounts of money to acquire market share today. Naturally the Indian consumer is spoiled for choice. However, this trend has reversed as investors are getting worried about slipping further down a slippery slope, and I expect more rational behavior in 2014. While this article focuses on ecommerce challenges in India, an intrinsically one-sided topic, it is important to note that ecommerce giants are increasingly attracted to India. Cross-border ecommerce to India is growing, and many large international players are also making a significant investment in setting up shop in India (Donald et al 2014).

### **2.3 Operational management**

Operations Management (OM) first became part of the production core pillar in the 1950s, where it was included in the Production Management (Meredith, 2013). Since that time OM aspect has undergone a significant number of changes. Andrew and Johnson (2012) proposed that the first significant change occurred in the early 1960s as production increased the quantitative material in their aspect. This caused the aspect to become more model and technique oriented at the expense of the established functional and descriptive approaches.

This, in turn, created three divergent foci during the mid to late 1960s: a strategic focus on changes in the competitive environment; a sociotechnical systems focus on the behavioral aspects of production systems; and a practitioner focus on computerized information systems. The 1970s saw the rise of the service industry and the need to develop new solution techniques for this industry, which resulted in a mixture of trends, foci, disciplines, and interests that created an identity crisis for production management (Andrew and Johnson, 2012). This then necessitated a name change from Production and Operations Management (POM) to Operations Management (Meredith, 2013). More recent areas of OM teaching and research now include international and environmental issues, and cross-functional topics such as technology integration, new product development and supply chain management.

This rapid development of the field of OM has led to confusion among students (our core constituency and future practitioners) as to the role OM plays in an organization. In a study of primarily undergraduates, Desai and Inman (2014) found that student bias against OM was

due to the image of OM; a lack of emphasis on OM in business schools; student perceptions of careers, salary, and what OM is; and the existence of ‘quant anxiety’ in OM courses. As student interest in OM has declined, an educational gap has grown between OM academicians and industry practitioners. Hayes (2012) attributed the gap to the lack of clear limits to the field of OM, since operational functions occur in all departments of an organization. Resolving the identity crisis of OM should be an important issue to both academicians and practitioners.

In a brief paper on the history of OM, Wilson (2015, p.61) stated, “An explicit recognition of the past is essential to a proper understanding of the present and for informed speculation about the future.” In the spirit of this quote, we begin our paper with a review of the studies that have been undertaken to determine what practitioners believe should be taught and what academicians are actually teaching. Our research was conducted on articles published in academic journals in order to cover only the most rigorous publications.

#### **2.4 Impact of operational challenges on market production**

According to Keller (2015), operational challenges has a negative effect on market production as the challenges affect production trends and provision of good and service. In a general sense, market production refers to the production of a product or service which is intended for sale at a money-price in a market (Lillian and Grow 2014). Operational challenges influence the product or service in principle has to be tradable for money.

However, in national accounts the term has a more specific meaning. The reason is that many producing organizations exist in the economy which either do not produce for any distinct market, or which partly produce for the market, and partly do not as they face challenges of operations (Henry et al 2013). These are non-commercial or partly commercial organizations, which can be mainly self-funded, but not for profit, or mainly funded by sources other than their own revenue. Statisticians therefore have to define "market production" much more exactly, in order to be able to separate out market production in a consistent way, and distinguish it from non-market production (Donald and Fled 2014).

In the United Nations System of National Accounts (UNSNA), market production includes all those producing units who sell most or all of their output at prices which are "economically significant" (i.e. at prices which influence how much producers are willing to

supply, and how much purchasers wish to buy (Jones and Chen 2015), For example, a school or a university would be a market producer, if it charges fees which are based on their production costs, and which are sufficiently high to influence demand for their services. The school or university would have to generate a definite operating surplus (profit) or loss.

Non-market production, by contrast, includes producing units which provide most of their output to others either free of charge, or at prices which are "not economically significant" - for example, government institutions, households, or non-profit institutions. If prices are charged for services supplied, these prices mostly do not change in response to fluctuations in supply or demand (as in the case of administered prices) or else they are prices which do not cover the cost of supply (Peter and Norman 2014). The organizations in this category do not provide a financial gain (a source of income or profit) to the units which control or manage them. In addition, they depend mostly on funding other than sales revenue to cover their costs of production, or of other activities they might carry out (for example, funding such as taxes, authorized levies, subsidies, subscriptions, donations etc.). Non-market production can also include subsistence production where the producer produces something for own use, rather than trading what he produces for something else (Chen et al 2015).

## **2.5 Effects of operational challenges on public production**

According to Gina et al (2013), public production is meant for public economics as it provides a framework for thinking about whether or not the government should participate in economic markets and to what extent it should do so. In order to do this, microeconomic theory is utilized to assess whether the private market is likely to provide efficient outcomes in the absence of governmental interference and operational challenges. Inherently, this study involves the analysis of government taxation and expenditures (Peterson and Morgan 2012). This subject encompasses a host of topics including market failures, externalities, and the creation and implementation of government policy. Public economics builds on the theory of welfare economics and is ultimately used as a tool to improve social welfare.

The term 'public production' was originally coined in the late 1970s by Elinor Ostrom and colleagues at Indiana University to explain why neighbourhood crime rates went up in Chicago when the city's police officers retreated from the street into cars (Plough, 2014) Similarly to Jane Jacobs' assessment of the importance of long-time residents to the

safety and vitality of New York's old neighbourhoods, Ostrom noted that by becoming detached from people and their everyday lives on the streets, Chicago's police force lost an essential source of insider information, making it harder for them to do their work as effectively.

Public goods, or collective consumption goods, exhibit two properties; non-rivalry and non-excludability (Moses and Fred 2015). Something is non-rivalled if one person's consumption of it does not deprive another person, (to a point) a firework display is non-rivalled - since one person watching a firework display does not prevent another person from doing so. Something is non-excludable if its use cannot be limited to a certain group of people. Again, since one cannot prevent people from viewing a firework display it is non-excludable. Conceptually, another example of public good is the service that is provided by law enforcement organizations, such as sheriffs and police (McMillan et al 2015). Typically, cities and towns are served by only one police department, and the police department serves all of the people within its jurisdiction.

## **2.6 Effects of operational challenges on house hold production**

Household production is the production of the goods and services by the members of a household, for their own consumption, using their own capital and their own unpaid labor. Goods and services produced by households for their own use include accommodation, meals, clean clothes, and this form of production is affected by operational challenge (Kennedy and George 2014). The process of household production involves the transformation of purchased intermediate commodities into final consumption commodities. Households use their own capital and their own labor.

The operational challenges has effect on household production and the Theory of Household Production states that families are both producers and consumers of goods (Aaron and Silk 2015). In an effort to maximize utility, families attempt to efficiently allocate time, income, and the collection of goods and services they both use and produce. Household Production Theory is simply the study of household production, consumption and household time allocation.

The basic concepts that are consistent across several different definitions of household production theory are household production, consumption and time allocation. Household production relates to all the output that a household produces including production related to

work (Memory and Dobby 2015). Household consumption includes all things that are consumed by a household including things like food, sleep, and leisure. Consumption theory is often predicated on the idea of diminishing marginal utility. This idea implies that we will diversify our consumption because increased consumption of the same good will give us less utility after a certain point (Enigma and Edeline 2012). Finally, time allocation refers to the exact way we spend each minute of our day. Time allocation also introduces the basic concept of opportunity cost, explaining that every minute we allocate to one activity, by definition, cannot be allocated to any other activity. The main assumption of household production theory is that consumers act as rational actors. The overall theory's goal is to explain the interactions and relationships between consumption, production and time.

The basic theory of household production has a strong level of internal consistency; however, the definitions and measurement of utility seem to introduce differences between researchers. The overarching theory is based on standard economic principles that have been used for hundreds of years (Edwards and Frank 2014). The concepts of marginal utility, supply and demand, and the production possibilities curve are all applied aspects of economic theory. The main utility of household production utilizes the interaction of all variables to maximize efficiency and provide the greatest 'happiness' given to an individual's or family's set of constraints. The inclusion of production, consumption and time, allows economists to create models that examine the correct allocation of goods and services (Blessed et al 2014).

## **2.7 Chapter summary**

This chapter reviewed literature on an analysis of operational challenges faced by investing companies on production in Zimbabwe. The chapter started by theoretical review on operational management and followed by empirical evidence. The chapter also demonstrates literature on the objectives under study. The chapter is going to be concluded by chapter summary. The next chapter provide research methodology.



## **CHAPTER 3**

### **RESEARCH METHODOLOGY**

#### **3.0 Introduction**

The researcher took particular note of the fact that the methodology lays the basis for the success of any research project by facilitating the acquisition of facts and data on the research hypothesis. The chapter seeks to produce a vividly reliable methodology used to gather data and information for the analysis of the challenges faced by foreign companies investing in Zimbabwe. The methodology will be explained by means of specification into various techniques that are the research design, research sample, specification of the model, data sources and justification of variables as well as considerations of ethnic connotations on data gathering.

#### **3.1 Research design**

According to (Burns, 2013), a research is a deliberately organised arrangement for the collection and analysis of data in a way that seeks to combine relevance to the research purpose with economy for procedure. The research design used in this study seeks to establish the cause and effect relationship between two or more variables therefore the casual design was used. However, the notion that different variables and situations require different data collection methodologies which are relevant to specified subjects compelled the adoption of explanatory design. This design is done when there is already an established hypothesis as to why various variables manifest and behave in the manner in which they do.

#### **3.2 Target population**

Day (2008) states that the study population should be defined in advance stating unambiguous inclusion criteria and the impact that they have on the study design, ability to generalize and consideration of recruitment participants. Study population is a set of people or objects from whom the required information to find answers to the research questions is obtained (Kumar, 2011). The current study has a population consisting of the following:

- 3 functional managers from across all departments

- Two companies chosen on relevance criteria that are ZIA and Ayan trading which is the main centre of concentration.
- 27 randomly selected workers and data arranged on convenience basis.

The population under study was scrutinized paying robust attention to the variables functionalities since the challenges under study occurs concurrently with the business operations. The targeted population have primary data, secondary data as well as the data currently being developed by the challenges under study.

**Table 3.2 Target population for ZIA and Ayan**

Description	Population	Percentage
Management	10	14%
Employees	60	86%
Total	70	100%

**Source:** ZIA and Ayan 2017

Table 3:2 above shows the targeted population of the study and they are 10 managers and 60 employees selected from Ayan.

### 3.3 Sample Size

According to Smith et al (2012) sample size is a proportion of the target population that is sampled since target population is large to sample. A smaller sample sizes at times saves time as it is simple to sample as postulated by (Haralambos, 2012).

Description	Target population	Sample size	Percentage
Managers	10	10	16%
Employees	60	52	84%
Total	70	62	100%

**Source:** Ayan trading 2017

Table 3.3 above shows sample size and Krejice and Morgan cited in Jones (2014), when target population is 70, the sample size to be sampled will be 62.

### **3.4 Research sample**

Babbie (2001), explained that a sample is a subset of the entire population under study. The sample therefore represents the larger population from which inferences will be drawn from sample findings.

Two sampling techniques that are random sampling and non-random sampling are the only types available with random being the that provides equal chances of selection to population subjects. Non random selection however does not give equal chances of selection to the sample subjects as they is somehow premeditated criteria for execution. The 60 workers represented in the population under study represents up to 86 percent of the entire workforce for Ayan Trading private limited.

Saunders et al (2003) mentions that all elements of a population have an equal chance of being selected to a sample. It is argued as a best way of coming up with a non-biased sample that will represent a population. It is a probabilistic method that includes simple random sampling and data obtained will be recorded on convenience and relevance basis.

Non random sampling technique is a non-probability method that can either be accidental or purposive (Trochim, 2006). Purposive technique was adopted selecting the 10 functional managers for purposes of specifically directing research problems to the stakeholders concerned.

### **3.5 Research Instruments**

Research instrument refers to a survey, questionnaire, test, scale, rating or tool designed to measure the variables, characteristics or information of importance, often a behavioural or psychological characteristic (Pierce, 2009:159). Realistic goals and study credibility can be achieved through careful planning on the above mentioned data collection methods. A time line must be established once a data collection procedure is determined. According to Creswell (2003), data collection steps includes setting boundaries for the study, collection of information through unstructured or semi-structured observations, interviews, documents and visual materials as well as establishment of protocol for recording information.

#### **3.5.1 Personal interviews**

An interview was conducted to elicit information from 5 functional managers on the challenges faced by foreign companies investing in Zimbabwe paying attention to Ayan Trading private limited as the case study. Burns (2000) states that an interview is a verbal

exchange in which an interviewer tries to seek information, beliefs or opinions from an interviewee.

### **Advantages**

- a. It countered errors that could have been missed in questionnaires by probing further to gain insight on the reasoning behind responses.
- b. Any physical materials that were needed to be showed to respondents could be easily presented.
- c. Respondents' eligibility could be easily checked before the start of the interview.
- d. Response rate were usually higher than other methods comprising questionnaires.

### **Disadvantages**

- a. Biased responses could be sensed due to the presence of the interviewer.
- b. Time consuming both on contacting and analysing.

### **3.5.2 Questionnaires**

Weijun (2013), mentions that a questionnaire is a general term which include all techniques of data collection in which each person is asked to respond to the same set of questions in a predetermined order. They can be used for descriptive research where the research seeks to identify and describe the variability in different scenarios. More so, they can be used for explanatory or analytical research seeks to examine and explain relationships between variables, in particularly cause and effect relationships. An explanatory research was adopted for inquiries into the questions on the challenges being faced by foreign companies investing in Zimbabwe for the case study which is Ayan trading pvt ltd. The questionnaires consisted of structured and open ended questions.

## **3.6 Reliability and Validity of data**

### **3.6.1 Validity**

According to Saunders etal (2012) validity of data referred to the quantity of data which any instrument is anticipated to measure. Rojon and Saunders (2012) concur that the instrument has to measure what it is purported to measure. The current researcher must pay attention to content validity, which denotes to the exactness with which an instrument measures the elements in the study. Field (2013) supports that content validity is concerned by how

precisely the questions are tested and how they incline to extract effective worthwhile information. The research instruments have been verified for content validity by giving the questionnaire to personnel with financial and audit knowledge only.

### **3.6.2 Reliability**

According to Field, (2013) reliability of data refers to whether data collection techniques and analytical procedures will provide reliable findings if applied in a different occasion or applied by another researcher. In this current study the questionnaire was prototyped to the academic's colleagues to evaluate the efficacy and reliability of the questionnaire. The main objective was to authenticate the questionnaire and guarantee that it does not have uncertainties that will promote data bias. The respondents were initially debriefed such that they comprehend the purpose of the questionnaire.

Content validity is additionally guaranteed by consistency in overseeing the questionnaires. Questionnaires were personally distributed to respondents by the researcher. The questions were expressed in simple language for transparency and easy understanding. The current researcher accomplished questionnaires for those with financial and audit know how

### **Advantages**

- a. Objectivity was achieved since responses were gathered in a standardised manner.
- b. Information was quickly collected.
- c. They reached a large population thereby increase the volume of information.

### **Disadvantages**

- a. It is impossible to explain misinterpreted points since the questions were standardised.
- b. Since questions are usually administered after the events some respondents had forgot important issues.
- c. Open ended questions generate large amounts of data which tend to consume more time analyzing and processing.
- d. Superficial responses were noted on fairly long questions.

### **3.7 Secondary data**

A secondary data research project involves the gathering or use of existing data for purposes other than those for which they were originally collected for (Forshaw, 2000). Secondary data can be obtained from literature, industry surveys, computerized databases, information systems and computerized mathematical models of environmental process. Much assistance can largely from the secondary data assisting the large part of this study. The research will be based on analysis of secondary methods of collecting data. The secondary data was collected from various sources such as, the Zimbabwe Investment Authority and websites. Secondary data refers to relevant information already in existence prior to the carrying out of the research (Aaltio & Pia, 2009). Therefore research with secondary data is historical in nature as it is based on historical data.

Monthly data from August 2009 to November 2016 used were obtained for foreign companies performance where obtained from the Zimbabwe investment authority and the Grant Thornton's easy of doing business platform. The data on foreign trade provided, details of foreign trade including sales, supplies, purchases and volume of domestic trade. Data on exchange rates were obtained from the Zimbabwe stock exchange. The Reserve Bank of Zimbabwe provided the monthly information on inflation rates.

### **3.8 Data Presentation and analysis**

In this study data would be presented using tables. Tables would be used to quantify data and meaningfully arrange it. The relationship between operational challenges faced by investing companies on production in Zimbabwe STATA 11. The coefficient of variation between operational challenges and production.

#### **3.8.1 Statistical Packages used**

Microsoft excel will be employed to compute the averages on the questions contained on the questionnaire that addresses the analysis of operational challenges faced by investing companies on production in Zimbabwe. Computation of regression analysis to ascertain the correlation is done by STATA 11.

The influence of independent variables on production is examined by the following regression model: Production (**dependent variable**) and Operational challenge's (**independent variable**)

Where:  $Y = \alpha + bx + \epsilon$

$MP = \alpha + \beta I MG + OM + \epsilon$

$$PP = \alpha + \beta_2 PG + OM + \epsilon$$

$$HP = \alpha + \beta_3 FG + OM + \epsilon$$

$\alpha$  = Constant and  $\beta$  = challenges in operations and: -

**OM**= Operational management, **MP**= market production, **PP**= Public production, **HP** = Household production, **MG**=Market good, **PG**= Public good and **FG** = Finished good,  $\epsilon$ - error

### 3.8.2 Justification of model variables

According to Jones, (2013), production is the process of converting raw materials into finished goods. Production as the dependent variable is measure in the form of market production, public production and household production.

Operational management is the day to day running of the organisation and in this study it is measured on the operational challenges and is the independent variable.

### 3.9 Chapter summary

The chapter explained the research design, the sample and population highlighting the targeted population with emphasis on establishing the suitable methodology for the study. Sources of data were also highlighted to validate the study as well as acknowledging existing researches. Credible results were yielded through a proper combination of variables, presentations, data collection procedures and analysis. The next chapter will focus on the data presentation and analysis.

## CHAPTER 4

### DATA PRESENTATION AND ANALYSIS

#### 4.0 Introduction

Data presentation and analysis was done on the study variables that is operational challenges and productivity. The presentation was be done in the form tables and the findings will be backed by literature. The chapter was concluded by chapter summary.

#### 4.1 Questionnaire response rate

Description	Distributed	Returned	Percentage
Managers	10	10	100%
Employees	60	60	100%
Total	70	70	100%

**Source:** Field survey 2017

The researcher managed to distribute 10 questionnaire to managers and 60 to employees and all of them were returned back and yield a 100% response rate. The total response rate is good for the study as it is above 60% and yield a positive result for the study as postulated by (Steve and Grace 2013).

#### 4.1.2 Scheduled interview's

Description	Planned	Successful	Percentage
Customers	5	5	100%
Total	5	5	100%

**Source:** research survey 2017



The researcher conducted 5 planned interviews to customers and all of them were successful. According to Gibson et al (2012) a higher interview response rate is reliable for a study when it is higher enough.

#### 4.3 Relationship between operational challenges on market production

The findings below indicate the findings on the dependent variable and the independent. The findings were extracted from Stata 11 as the statistical package of the study and were backed by relevant literatures.

. reg oc mp

Source	SS	df	MS			
Model	13.7434424	1	13.7434424	Number of obs =	70	
Residual	172.599415	68	2.53822669	F( 1, 68) =	5.41	
Total	186.342857	69	2.70062112	Prob > F =	0.0230	
				R-squared =	0.0738	
				Adj R-squared =	0.0601	
				Root MSE =	1.5932	

  

oc	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
mp	-.4069547	.1748894	-2.33	0.023	-.7559411	-.0579683
_cons	3.998106	.5605043	7.13	0.000	2.879637	5.116575

Operational management is strongly negative correlated to market production. The relationship is shown by -2, 33 t-tests that is greater than 2 and a probability of 0,023 that is significant at 5%. The findings show a Null hypothesis (H0) proving that there is no relationship. An increase in operational challenges by 1 unit will lead to a decrease in market production by -41% level of coefficient

According to Henry (2014), operational challenges have a negative impact of market production as they affect marketing and distribution of products. Therefore there is a negative relationship between operational challenges and market production.

#### 4.4 Relationship between operational challenges on public production

The findings below indicate the findings on the dependent variable and the independent. The findings were extracted from Stata 11 as the statistical package of the study and were backed by relevant literatures.

. reg oc pp

Source	SS	df	MS			
Model	12.9528687	1	12.9528687	Number of obs =	70	
Residual	170.832846	68	2.51224773	F( 1, 68) =	5.16	
Total	183.785714	69	2.66356108	Prob > F =	0.0263	
				R-squared =	0.0705	
				Adj R-squared =	0.0568	
				Root MSE =	1.585	

  

oc	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
pp	-.3950766	.1739921	-2.27	0.026	-.7422725	-.0478807
_cons	3.976588	.5576285	7.13	0.000	2.863858	5.089318

Operational management is strongly negative correlated to public production. The relationship is shown by -2, 27 t-tests that is greater than 2 and a probability of 0,026 that is significant at 5%. The findings show a Null hypothesis (H0) proving that there is no relationship. An increase in operational challenges by 1 unit will lead to a decrease in public production by -40% level of coefficient

According to Lillian et al (2014), public production has an influence on the economy as public goods are manufactured not for profit making rather but for public provisions and the production of such goods and products is affected by operational challenges. Therefore, the findings indicate that there is a negative relationship between operational challenges and public production,

#### 4.5 Relationship between operational challenges on house hold production

The findings below indicate the findings on the dependent variable and the independent. The findings were extracted from Stata 11 as the statistical package of the study and were backed by relevant literatures.

. reg oc hp

Source	SS	df	MS			
Model	12.1857118	1	12.1857118	Number of obs =	70	
Residual	169.014288	68	2.48550424	F( 1, 68) =	4.90	
Total	181.2	69	2.62608696	Prob > F =	0.0302	
				R-squared =	0.0673	
				Adj R-squared =	0.0535	
				Root MSE =	1.5765	

  

oc	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
hp	-.3831985	.1730635	-2.21	0.030	-.7285414	-.0378556
_cons	3.95507	.5546525	7.13	0.000	2.848278	5.061862

Operational management is strongly negative correlated to household production. The relationship is shown by -2, 21 t-tests that is greater than 2 and a probability of 0,030 that is significant at 5%. The findings show a Null hypothesis (H0) proving that there is no relationship. An increase in operational challenges by 1 unit will lead to a decrease in household production by -38% level of coefficient

According to Smith, (2014), operational challenges have an effect on household production in the sense that household good are deemed to be finished or ready use products and their manufacture will be affected by operational challenges.

#### 4.6 Chapter summary

The chapter has presented the data using the linear regression model and the findings indicated that there is a negative relationship between operational challenges and production and the chapter was concluded by chapter summary. The next chapter is the summary of findings, conclusion and recommendations.

## **CHAPTER 5**

### **SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATIONS**

#### **5.0 Introduction**

The chapter focuses on the summary of findings from chapter 4, conclusion and recommendation. The chapter is going to be concluded by area of further research marking the end as it is the final chapter of the project.

#### **5.1 Summary of findings**

The findings below are based on the outcome from chapter 4 and they show the relationship between operational challenges and productivity

##### **5.1.1 Findings on the relationship between operational challenges on market production**

Operational management is strongly negative correlated to market production. The relationship is shown by -2, 33 t-tests that is greater than 2 and a probability of 0,023 that is significant at 5%. The findings show a Null hypothesis (H0) proving that there is no relationship. An increase in operational challenges by 1 unit will lead to a decrease in market production by -41% level of coefficient .According to Henry (2014), operational challenges have a negative impact of market production as they affect marketing and distribution of products. Therefore there is a negative relationship between operational challenges and market production.

##### **5.1.2 Findings on the relationship between operational challenges on public production**

Operational management is strongly negative correlated to public production. The relationship is shown by -2, 27 t-tests that is greater than 2 and a probability of 0,026 that is significant at 5%. The findings show a Null hypothesis (H0) proving that there is no relationship. An increase in operational challenges by 1 unit will lead to a decrease in public production by -40% level of coefficient .According to Lillian et al (2014), public production

has an influence on the economy as public goods are manufactured not for profit making rather but for public provisions and the production of such goods and products is affected by operational challenges. Therefore, the findings indicate that there is a negative relationship between operational challenges and public production,

### **5.1.3 Findings on the relationship between operational challenges on house hold production**

Operational management is strongly negative correlated to household production. The relationship is shown by -2, 21 t-tests that is greater than 2 and a probability of 0,030 that is significant at 5%. The findings show a Null hypothesis (H0) proving that there is no relationship. An increase in operational challenges by 1 unit will lead to a decrease in household production by -38% level of coefficient .According to Smith, (2014), operational challenges have an effect on household production in the sense that household good are deemed to be finished or ready use products and their manufacture will be affected by operational challenges.

## **5.2 Conclusions**

The findings below are based on the outcome from chapter 4 and they show the relationship between operational challenges and productivity

### **5.2.1 Conclusion on the relationship between operational challenges on market production**

To conclude operational management is strongly negative correlated to market production. The relationship is shown by -2, 33 t-tests that is greater than 2 and a probability of 0,023 that is significant at 5%. The findings show a Null hypothesis (H0) proving that there is no relationship. An increase in operational challenges by 1 unit will lead to a decrease in market production by -41% level of coefficient.

### **5.2.2 Conclusion on the relationship between operational challenges on public production**

To conclude operational management is strongly negative correlated to public production. The relationship is shown by -2, 27 t-tests that is greater than 2 and a probability of 0,026 that is significant at 5%. The findings show a Null hypothesis (H0) proving that there is no

relationship. An increase in operational challenges by 1 unit will lead to a decrease in public production by -40% level of coefficient.

### **5.2.3 Relationship between operational challenges on house hold production**

To conclude operational management is strongly negative correlated to household production. The relationship is shown by -2, 21 t-tests that is greater than 2 and a probability of 0,030 that is significant at 5%. The findings show a Null hypothesis (H0) proving that there is no relationship. An increase in operational challenges by 1 unit will lead to a decrease in household production by -38% level of coefficient.

## **5.3 Recommendations**

The recommendations below are based on the outcome from chapter 4 and they show the relationship between operational challenges and productivity

### **5.3.1 Recommendations on the relationship between operational challenges on market production**

Operational management is strongly negative correlated to market production. The relationship is shown by -2, 33 t-tests that is greater than 2 and a probability of 0,023 that is significant at 5%. The findings show a Null hypothesis (H0) proving that there is no relationship. An increase in operational challenges by 1 unit will lead to a decrease in market production by -41% level of coefficient. Ayan should ensure that they make of use effective ways of production and improve on operations.

### **5.3.2 Recommendations on the relationship between operational challenges on public production**

Operational management is strongly negative correlated to public production. The relationship is shown by -2, 27 t-tests that is greater than 2 and a probability of 0,026 that is significant at 5%. The findings show a Null hypothesis (H0) proving that there is no relationship. An increase in operational challenges by 1 unit will lead to a decrease in public production by -40% level of coefficient. Ayon should ensure that they seek government assistance on the production of public goods.

### **5.3.3 Recommendations on the relationship between operational challenges on household production**

Operational management is strongly negative correlated to household production. The relationship is shown by  $-2,21$  t-tests that is greater than 2 and a probability of 0,030 that is significant at 5%. The findings show a Null hypothesis (H0) proving that there is no relationship. An increase in operational challenges by 1 unit will lead to a decrease in household production by -38% level of coefficient. Ayan should improve on the provisions of household production.

### **5.4 Area of further research**

The next researcher should now focus on the impact of operational management on financial management of retail firms.

## QUESTIONNAIRE FOR EMPLOYEES

My name is R136635P ; I am a Midlands State University student studying for an Honours Degree in Business Management. As part of my studies I am required to do a research project for which these questions have been prepared to help collect data. My research topic is entitled **“AN ANALYSIS OF THE OPERATIONAL CHALLENGES FACED BY FOREIGN COMPANIES INVESTING IN ZIMBABWE ON ENHENCING PRODUCTIVITY, A CASE STUDY OF AYAN TRADING (pvt ltd)”**. All responses will be treated in the strictest of confidence and will only be used for academic purposes only.

Please answer the following questions about the operational challenges faced by foreign companies in Zimbabwe. Please be as candid as possible; remember, all your responses will remain strictly anonymous and confidential. Please indicate the extent to which you agree with each of the following statement about your organization by indicating with a tick in the box of your choice.

### 1.) Impact of operational challenges on market production

To what extend does the current market production in your organization satisfy you.

Most dissatisfied

Somewhat dissatisfied

Neither satisfied nor dissatisfied

Somewhat satisfied

Most satisfied

<b>The following economic factors are affecting market production within the organisation</b>	<b>Strongly Agree</b>	<b>Agree</b>	<b>Uncertain</b>	<b>Disagree</b>	<b>Strongly disagree</b>
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a) <b>Liquidity crises</b>					
b) <b>Indigenisation</b>					
c) <b>Dollarization</b>					

<b>The factors below are the root causes of operational challenges that affect market production</b>	<b>Strongly Agree</b>	<b>Agree</b>	<b>Uncertain</b>	<b>Disagree</b>	<b>Strongly disagree</b>
a) <b>Poor Economic Policies</b>					
b) <b>Poor Technology</b>					
c) <b>Poor Infrastructure</b>					

	<b>Strongly Agree</b>	<b>Agree</b>	<b>Uncertain</b>	<b>Disagree</b>	<b>Strongly disagree</b>
There are control measure in place for the operational challenges being faced by the organisation					
Operational challenges affect marketing production decision making.					
There are various operational efficiency practices used by the organisation.					

**To establish the effect of operational challenges on public production**

<b>The following factors has an influence on the effectiveness and efficiency of public production within the organization.</b>	<b>Strongly Agree</b>	<b>Agree</b>	<b>Uncertain</b>	<b>Disagree</b>	<b>Strongly disagree</b>
Operations strategy					
Product design					
Process design					
Production planning					
Inventory management					

Organisational capacity					
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**The organisation is negatively affected by the above factors if poorly implemented.**

Strongly agree

Agree

Neutral

Disagree

Strongly disagree

	<b>Strongly Agree</b>	<b>Agree</b>	<b>Uncertain</b>	<b>Disagree</b>	<b>Strongly disagree</b>
The main utility of household production utilizes the interaction of all variables to maximize efficiency.					
The inclusion of production, consumption and time, allows examination of the correct allocation of goods and services					
The overall operational goal of household production is to explain the interactions and relationships between consumption, production and time.					
The main assumption of household production is that consumers act as rational actors.					
Operational Management practices contribute greatly to household production					

