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Inventory Management and the Performance of Listed Manufacturing Firms in Ghana

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Abstract

The purpose of this research was to investigate how inventory management affected the performance of manufacturing enterprises in the Kumasi Metropolis. In addition, the research used both descriptive as well as explanatory research approaches. The research demographic included all of the manufacturing companies in Ghana's Kumasi Metropolis, and the target demographic included all of the staff members who work in essential departments of the manufacturing businesses sited throughout the Assembly. The total population is 62. The sample size was determined using the Yamane sample size determination formula in the study. Because the population and location of manufacturing companies were available, probability sampling was utilized in this investigation, with a sample size of 54. According to the research, a one-unit gain in inventory management leads to a 20.3 percent, 31.9 percent, and 21 percent rise in marketplace efficiency, financial results, as well as client satisfaction, respectively. Ultimately, the research shows that stock management is a factor in the success of manufacturing companies. As a result, it is advised that optimum stock management methods be implemented in order to improve the operation of industrial enterprises in Ghana's Kumasi Metropolis.

Keywords

Inventory Management, Customer Satisfaction, Financial Performance, Market Performance, Manufacturing Firms, Ghana

1. Introduction

Inventory management encompasses all of the procedures carried out by a company to ensure that a client obtains the goods that he or she demands. By doing so, production prioritizes sourcing, and delivery in order to provide the

finished goods to the consumer on time (Elsayed & Wahba, 2016). The purpose of inventory management is to save costs and retain stocks in order to ensure a constant supply for subsequent activities (Ahmed, Modibbo, Modu, & Muhammad, 2016). This is why inventory accounts for a major portion of total costs in several firms, which may have an impact on both an organization's financial and market performance. This substantial cost is typically incurred as a consequence of poor inventory control or procurement, which could also lead to wear, loss, thievery, amortization, overall surplus or deficiency (Golas & Bieniasz, 2016).

Atnafu and Balda (2018) examined the effect of inventory management on the competitive spirit and performance of the organization of Ethiopian industrial companies and discovered that the further inventory control was conformed to, the more competitive edges and organizational success the companies in question encountered. Ngumi (2015), for example, uses a dataset of 50 big Kenyan manufacturing enterprises to discuss the link between inventory control and work performance, and discovers that stock control techniques favorably increase production. Likewise, Prempeh (2015) studies the influence of inventory control on the performance of four industrial operations listed on the GSE and discovers that stock control has a substantial strong and favorable effect on profits. Research done by Bawa et al. (2018) on stock control and the efficiency of Ghanaian industries, on the other hand, found no significant influence on productivity. Furthermore, Thogori and Gathenya (2014) performed research in Kenya to analyze the influence inventory control had on the fulfillment of production enterprises' clients and discovered that the firm's inventory control system was poor, likely to result in supply shortages as well as lengthy lead times, resulting in stock delays. As a result, the supply chain often resulted in consumer discontent.

Likewise, Abdullahi (2020) pursued to ascertain the firm's inventory control techniques; the metrics it utilised for quality service; and the impact stock control had on client satisfaction; and discovered the firm's use of the order quantity (EOQ) concept, which has a very strong connection among both inventory planning and client satisfaction result of the correlation coefficient of 0.83. Notwithstanding the findings of the preceding investigations (Atnafu & Balda, 2018), Scholars have not reached a consensus on the real link that emerges between the factors of inventory control, stock performance, financial success, as well as customer loyalty. The endeavor to generalize the causal association among inventory management and industrial business performance required scientific validation in a variety of settings, particularly in emerging economies like Ghana. As a result, the purpose of this research is to investigate experimentally how stock control affects the efficiency of manufacturing enterprises in the Kumasi Metropolis. This research helps manufacturing organizations comprehend how and to what level stock control influences profitability, stock performance, as well as customer happiness.

2. Literature Review

This section focuses on the existing literature study on how IM affects the performance of industrial enterprises in Ghana's Kumasi Metropolis. The chapter specifically covers, among other things, the definition of crucial definitions, accompanied by theoretical literature that helps to foster the research goals with existing theoretical that would enhance the study's comprehension of the research; an empirical framework of both the research and the theoretical foundation that will rationalize the reasoning behind the aim theorized on; and an empirical model that will underpin the research. In Section 2.6, the researcher studies the writings of existing writers in sequential sequence and then delivers a chapter summary.

2.1. Conceptual Review

2.1.1. Inventory Management (IM)

Prior to actually examining the link between survey's components, it is crucial to first define the word "inventory management" in order to properly appreciate what it comprises. Various academics have proposed various meanings for the word over the years. Nevertheless, the main significant ones will be explored in this section prior to deciding on a good one.

Before delving into the many definitions of the phrase itself, the connotations of the words "inventory" and "management" will be examined. As per Munyao et al. (2015), inventory refers to a firm's physical, tangible commodities that are inactive, have financial worth, and are stored in a variety of types in its possession awaiting packaging, sorting, conversion, usage, or sale at a later point. Conversely, Musau et al. (2017) describe management as "the organization of a person's or entity's operations to accomplish set targets". When the two meanings are combined, stock control appears to suggest "the administration and synchronization of a firm's latent physical commodities with financial worth awaiting packaging, sorting, transition, usage, or selling at a later period".

In terms of suitable descriptions for the word "IM", Anantadjaya et al. (2021) stated that it is a discipline that engages with the characterization of both the proportion and form of commodities in possession. Müller et al. (2020), on the other hand, presented a more detailed characterization as a firm's monitoring and command over the purchasing, storing, and usage of the elements that this will sell or of the final items that it will offer. It must be emphasized that one obvious flaw in Müller's et al. (2020) description is that it implies a firm would use its raw resources to produce completed commodities, that is not the situation for many businesses, including clinics.

2.1.2. Measurement of Performance

1) Market Performance

Glancing at the report's independent factors, Acha & Akpan (2019) characterized market performance as a company's success as assessed by its total sales,

profit numbers, competitive edge, client satisfaction, as well as customer retention. It is critical to note the measurements of total sales, profit, as well as customer happiness since revenue from sales and profit growth are typically believed to be indicators of fiscal success, but client satisfaction is handled as a separate subcategory in this research.

However, according to Rubin (2019), market performance involves the connection of sale value to costs, the scale of supply, operational efficiencies, advancement in processes and goods, and so on. Kim & Mauborgne (2017) defined efficiency as the efficacy with which a company's vendors use financial resources to optimize effectiveness while also benefiting customers. Market performance, as per Kim and Mauborgne (2017), contains the key elements:

Productive efficiency is the cost-effectiveness with which enterprises produce their products.

Distributive efficiency refers to the capacity to reduce delivery expenses by adopting cost-effective distribution routes and marketing tactics. Setting reasonable and equal rates for customers.

Product performance entails optimizing customer choice as well as value for money.

Technological progressiveness The capacity to give higher technological products to clients by providing product and service advancements that allow for lower production costs and pricing.

Based on the aforementioned categories and explanations, it can be concluded that market performance is primarily concerned with production effectiveness, distributive effectiveness, the establishment of fair pricing to clients, performance metrics, and technical advancement, as defined by Kim and Mauborgne (2017).

2) Financial Performance

Looking at the different descriptions of financial performance, Ehrhardt & Brigham (2016) defined it as the degree to which a company makes use of its assets from its main line of business in order to earn revenues. Another definition was given by Higgins (2015) as the degree to which a firm accomplishes its financial objectives. According to Alexander (2018), it is the degree of success of the operations and policies of a company in monetary terms.

Now looking at some common measures of financial performance, through the review of literature, it was arrived at that despite the more sophisticated valuation techniques, the best measures of financial performance for a firm that deals in the manufacturing of products include the return on equity (ROE), return on assets (ROA) and return on company employed (ROCE).

However, with respect to ROE, Higgins (2015) pointed out that a number of dubious strategies can be employed to manipulate its ROE figure to temporarily appear to be healthy, thus hiding poor performance. An example that Higgins (2015) provided was a firm increasing its leverage or buying back its stocks that funded through accumulated cash.

In the case of ROA, it was brought to light by Ehrhardt & Brigham (2016) that

ROA supersedes income statement measures of financial performance such as return on sales. The reason given was due to the fact that it considers the assets of a firm that are used to support its business activities by determining the degree to which it is able to produce reasonable returns on these assets.

Finally, regarding the return on capital employed (ROCE) indicator, Alexander (2018) mentioned that it is used to show how efficiently a company makes use of its capital. Alexander (2018) further praised the indicator by mentioning that it measures profitability only after considering the amount of capital that is used to create that level of profitability. Nevertheless, Higgins (2015) strongly advised that ROCE should be used in conjunction with other measures of performance rather than being used alone.

3) Customer Satisfaction

In terms of client satisfaction, Keller & Kotler (2015) defined it as a customer's assessment as to whether an encounter was joyful and fulfilled after consuming a good or service. According to Salomon et al. (2016), client satisfaction judgements happen when clients evaluate their encounter with a commodity or services to their anticipated level of efficiency.

2.2. Theoretical Review

This subsection evaluates the theoretical grounds on which the study is based. The author's goal is to provide study goals with support founded on current and applicable ideas.

The Resource Based View (RBV) Theory

According to the RBV Theory, a company's interior operations can explicitly or implicitly offer it with a durable competitive edge. This is predicated on the notion that a business has a strategic advantage when it possesses assets that other enterprises in its sector cannot. People, material, administrative, and economic resources are all investigated in such studies (Rashid, 2015). As per Ngumi (2015), creating and maintaining such a competitive edge entail identifying, developing, deploying, and protecting a firm's domestic assets. This study looks into the degree to which industrial enterprises' internal procedures in the Kumasi Metropolis offer them with a chance to compete. This hypothesis is being utilized to guide this particular investigation in light of this.

2.3. Empirical Review

This subsection reviews empirical research that borders on the objectives of the study.

2.3.1. Inventory Management on the Market Performance

Theng (2016) performed Malaysian research to explore how inventory control affects the comparative edge of SMEs. According to the findings, stock lead time, stock control, as well as inventory control all were crucial for a respective competitive edge.

Atnafu and Balda (2018) conducted research on the influence of inventory control on the profitability and organisation performance of Ethiopian industrial companies. A total of 188 SMEs operating in this sub-sector of the Ethiopian industry were considered in the sample group. The findings revealed that the greater the adherence to inventory control, the greater the enterprises in consideration enjoyed higher competitive edge as well as a performance of the firm Furthermore, it was discovered that the enterprises' competitive edge had a favorable impact on their profitability.

2.3.2. Inventory Management on the Financial Performance

Kimaiyo and Ochiri's (2014) study concerned Kenyan manufacturing firm's inventory management and performance similar to Ngumi's (2015), Hu (2019) and Naliaka and Namusonge's (2015) studies. However, this study was concerned with the manner in which the cost reduction aspect of IM affected the functioning of these manufacturing firms; how inventory control systems affected their performance; how lead time affected their performance; and how supplier demand affected their performance. Through the study, it was found that the inventory management systems of the firms in question had a positive effect on their being able to practice proper inventory management, and also assisted in their lowering of costs, and therefore, an increase in their profitability.

2.3.3. Inventory Management on Customer Satisfaction

Rashid (2015) performed Pakistani research with a British biscuit manufacturing enterprise to investigate the influence of stock control and customer participation on client satisfaction. The study found out that the independent factors had a substantial influence on client satisfaction.

Johnson and Seminar (2015) conducted another research with the Nzoia Sugar Firm in Uganda to identify the stock control strategies utilized by the business, the measurements it employed for customer experience, and the influence stock control had on client satisfaction. Concerning the impact of inventory control on client satisfaction, it was found that the firm's usage of (EOQ) model resulted in a really significant connection between inventory planning and client satisfaction, as evidenced by the correlation coefficient. Nevertheless, no Ghanaian research on the impact of inventory control on client satisfaction in manufacturing enterprises could be located. As a result, this may be validated as a research vacuum.

2.4. Conceptual Framework

The conceptual framework was developed using The Theory of Constraints and Resource Based View Theory, as indicated in Figure 1 below. The model, on the other hand, was constructed following a thorough study of the existing research on investigating how stock control affects the profitability (depending on marketplace, fiscal, and client satisfaction) of industrial enterprises in the Kumasi Metropolis.
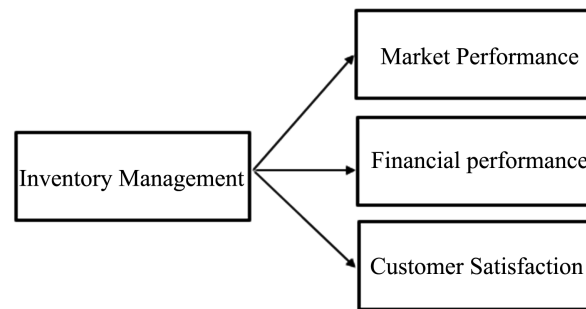
Figure 1. Conceptual framework. Source: Authors construct (2022).

3. Materials and Methods

This section describes the technique utilized to conduct the research. The study methodology, research design, respondents of the study, response rate, sampling procedure, sources and data collecting method, data validity and reliability methodologies, as well as analysis techniques are all presented.

3.1. Research Design

Descriptive as well as explanatory designs are used in this study. On the one hand, descriptive study design was employed in conjunction with visual drawings to illustrate several factors of concern. Explanatory study design has been employed to determine the size, orientation, and relevance of stock management on the operation of industrial enterprises in the Kumasi Metropolis. Each study's population relates to the complete group out of which data might be gathered to satisfy the study goals. In accordance with this, the population in this study is comprised of all manufacturing companies in KMA. All personnel who work in essential divisions of manufacturing are situated across KMA, including directors and officials of the distribution Centre, leaders and officials of the accounting departments, directors and officials of the marketing teams. This figure is expected to be 62. A sample size of 54 was calculated using the Yamane sample size method at a 95% level of confidence. This is given as $n = N/(1 + Ne^2)$, where n = Number of samples, N = total population, and e = error tolerance.

$$n = \frac{N}{1 + Ne?}$$

$$n = \frac{62}{1 + 62 \times 0.05^2}$$

$$n = 54$$

3.2. Data Collection Instrument

Primary data collection instrument specifically the structured questionnaire was employed to collect data from respondents. Taking the study aims into account, the questionnaire survey approach was used. Then, using Google Forms, 54 surveys were distributed. These were given to study participants. A seven point Likert scale was used in the development of the questionnaire for this research.

Self-administered questionnaire was the main instrument, exercised for the data collection. Structured questionnaires are suitable for obtaining objective responses for quantitative analysis. It can also efficiently collect numerical data for descriptive and inferential statistics to generate better conclusions that generalize findings to the entire population. Measures for inventory management were adopted from the study of Qrunfleh and Tarafdar (2013), Yadav, Jain, Mittal, Panwar and Lyons (2019) with eight items. Measures for performance were adopted from the study of Kimaiyo and Ochiri (2014) with thirteen items.

3.3. Data Analysis Techniques

After the filling of the forms by the participants, they were sent to the Investigator, who structured and analyzed the statistical results. In addition to several regression models, descriptive and analytical figures, charts, and graphs were employed to examine the results. The indexes derived by factor analysis were then employed in this study to do a multiple regression. This method allowed us to study the link among several inventory management parameters and firm performance, as indicated in Equation (3).

$$MP_{ti} = \alpha + \beta_1 IM_t + \varepsilon_t \tag{3a}$$

$$CS_{ti} = \alpha + \beta_1 IM_t + \varepsilon_t \tag{3b}$$

$$FP_{ti} = \alpha + \beta_1 IM_t + \varepsilon_t \tag{3c}$$

where:

Variables	Conceptualization and Measurement	Expected Signs
IM	The degree to which businesses control their products and final goods across time.	+
Constant term (C)	As it has no mutable parameters, an exponential function has a constant rate.	±
Idiosyncratic error term (ei)	A remnant parameter that is generated by the regression analysis.	±
β_i	I quantify the likelihood of stock control for each shift in each explanatory factor.	±
Market Performance (MP)	The businesses' performance in respect of sales, income, customer base, as well as competitive edge over time t.	+
Financial Performance (FP)	The effectiveness with which each of the firms utilizes its assets to generate revenues during time *t*	+
Customer Satisfaction (CS)	The amount to which each company's inventory meets or surpasses consumer requirements throughout time t	+

Source: Authors work, 2022.

3.4. Overview of Kumasi Metropolitan Assembly (KMA)

The Kumasi Metropolis is located in Ghana's Ashanti Region, and its unique central location makes it accessible from all directions. It is the second largest city in the country and the administrative headquarters of Ashanti. It is a rapidly growing metropolis with a projected population of over two million people and an annual growth rate of roughly 5.4 percent. The Metropolis is approximately 254 kilometers in length, with a mostly circular physical form and a centrally located business district. In the city, there are synchronizations of financial advancement. The Central Business District (CBD), which includes the Kejetia Lorry Park, the Central Market, and the Adum Shopping Center, is the first and most important sector.

This chapter contains analysis and comments of the study's findings. The data for the analysis were confirmed utilizing Cronbach Alpha and preliminary research for the validity and reliability tests. Logistic analysis is used to test the report's hypotheses. Means and standard deviations are used to characterize the various concepts.

4. Presentation of Results

4.1. Demographics of Respondents

Descriptive data is included in Table 1 below. According to the survey, the majority of participants (55.6 percent) were females, while the minorities (44.4 percent) were males. Again, the survey discovered that the majority of respondents (35.2 percent) were within the ages of 31 and 40, 33.3 percent were within the ages of 41 and 50, 22.2 percent were within the ages of 18 and 30, and the remaining (9.3 percent) were beyond the age of 50. In addition, the survey found that the majority (46.3 percent) of respondents had a Bachelor's degree, 31.5 percent had a HND, 16.7 percent had a Master's, and the lowest (5.6 percent) had a formal qualification.

4.2. IM Measures

As seen in Table 2 below, the majority of participants stated that their organization conducted inventory management. "Inventory stock reviews are used in our inventory system." (m = 4.9, SD = 1.8), "JIT restocking is used in our inventory system" (m = 4.7, SD = 1.6), "The EOQ concept is used in our inventory control" (m = 4.5, SD = 1.6), "Cycle counting is used in our inventory system" (m = 4.6, SD = 1.54).

4.3. Performance Measures

Table 3 presents data for market performance. The analysis of data revealed mean values greater than 5. The inventory system improving productivity and improving competitiveness are the top two market performance effects as pointed out in Table 3.

Table 1. Respondents' background.

Variables	Count	%
Gender		
Male	24	44.4
Female	30	55.6
Age		
18 - 30	12	22.2
31 - 40	19	35.2
41 - 50	18	33.3
Above 50	5	9.3
Formal Educational		
HND	17	31.5
First Degree	25	46.3
Master's Degree	9	16.7
Professional Accreditation	3	5.6

Source: Field survey, 2022.

Table 2. Inventory Management.

Statements	Minimum	Maximum	Mean	Std. D
JIT restocking is used in our inventory system.	2	7	4.70	1.62
Our inventory control method makes use of computerized tracking.	1	7	4.43	1.70
Cycle counting is used in our inventory system.	1	7	4.59	1.54
Inventory level is used in our inventory control.	1	7	5.11	1.73
The EOQ concept is used in our inventory control.	1	7	4.52	1.66
Our inventory control system employs replenishment depending on reaction.	1	7	4.37	1.70
Our inventory system operates on a time-specific basis.	1	7	4.63	1.57
Inventory stock reviews are used in our inventory system.	1	7	4.89	1.83

Source: Field survey, 2022.

Table 3. Market performance.

Statements	Minimum	Maximum	Mean	Std. D
Our inventory system has aided in the improvement of our firm's productivity.	1	7	5.37	1.61
Our inventory system has contributed to our increased competitiveness.	1	7	5.37	1.48
Our inventory system has assisted us in increasing our sales.	2	7	5.56	1.61
Our inventory system has assisted us in increasing our share in the market.	2	7	5.28	1.38

Source: Field survey, 2022.

Table 4 presents data for financial performance. The analysis of data revealed mean values between 4.91 and 5.43. Items agreed consisted of; "Our product organisation system has resulted in improved sales" (m = 5.4, SD = 1.5), "Our product organisation system has resulted in improved sales" (m = 5.3, SD = 1.5) and "Our product organisation system has reduced prices" (m = 5.2, SD = 1.7). "Our product organisation system has led to improved return on investments" (m = 4.9, SD = 1.6).

Table 5 presents data for client satisfaction. The analysis of data revealed mean values between 3.30 and 5.28. Factors included; "Our product organisation system has improved productivity values" (m = 4.5, SD = 2.2) and "Our product organisation system has lowered clients' grievances" (m = 4.52, SD = 1.9). "Our product organisation system has resulted in a rise in quality goods to clients" (m = 5.3, SD = 1.8).

4.4. Validity and Reliability Results

In a study, reliability refers to the extent to which a research approach delivers steady and consistent results (Bolarinwa, 2015; Saunders, Lewis, & Thornhill, 2012). Meanwhile, validity defines the degree to which a study technique accurately represents the phenomena being measured (Aiken, 1980; Bolarinwa, 2015). A preliminary study was conducted to assess the study tools' validity, reproducibility, and applicability. The most significant aspect of the study is ensuring accuracy as well as relevance. The study chose 10 businesses (14%) at random for the preliminary trial. In order to elicit replies for different inquiries, the author distributed questionnaires to the heads of the departments of the ten organizations.

After entering data, the author performed initial analysis to evaluate for dependability utilizing Cronbach's alpha. Cronbach's alpha is a well-known indicator of dependability (Demers et al., 2002). To be more explicit, every one of the Cronbach alpha numbers was greater than 0.5 (Bujang, Omar, & Baharum, 2018). The reliability test findings assisted in determining whether or not the

Table 4. Financial performance.

Statements	Min	Max	Mean	Std. D
Our product organisation system has reduced prices	1	7	5.28	1.74
Our product organisation system has improved profitability	1	7	5.35	1.66
Our product organisation system has resulted in improved sales	1	7	5.43	1.51
Our product organisation system has improved returns on assets	1	7	4.94	1.46
Our product organisation system has led to improved return on investments	1	7	4.91	1.70

Source: Field survey, 2022.

Table 5. Customer satisfaction.

Statements	Min	Max	Mean	Std. D
Our product organisation system has resulted in a rise in quality goods to clients	1	7	5.28	1.80
Our product organisation system has lowered clients' grievances	1	7	4.52	1.97
Our product organisation system has improved clients' compliments to the company	1	7	3.30	1.94
Our product organisation system has improved productivity values	1	7	4.52	2.20

Source: Field survey, 2022.

survey should be redesigned. To confirm the accuracy of the study instrument, the investigator engaged specialists in transportation, accounting, market research, and other fields, and will modify the questionnaires as needed.

The study discovered a substantial positive and significant association (R = 0.512, p-value = 0.000 0.05) between IM and marketing success, as shown in Table 6. Furthermore, the research demonstrated substantial positive and significant association (R = 0.516, p-value = 0.000 < 0.05) between IM and FP. Moreover, the study discovered a favorable and substantial association (R = 0.378, p-value = 0.000 < 0.05) between IM and client satisfaction. These findings show that the variables are fairly correlated. Furthermore, no evidence of multicollinearity was found because all intra-item correlations were less than the required minimal criterion (0.8). In terms of Cronbach's alpha values, all of the constructions greatly above the allowed limit for internal consistency (0.7).

4.5. Regression Results

As indicated in Table 7 below, IM is well-suited to forecasting market performance,

Table 6. Validity and reliability results.

	Mean	Cronbach's α	Marketing Performance	Financial Performance	Customer Satisfaction	Inventory Management
Market Performance	5.40	0.736	1			
Financial Performance	5.18	0.924	0.736* (0.000)	1		
Customer Satisfaction	4.41	0.817	0.042 (0.765)	0.072 (0.603)	1	
Inventory Management	4.66	0.949	0.512* (0.000)	0.516* (0.000)	0.378* (0.005)	1

*. Correlation is significant at the 0.01 level and ** Correlation is significant at the 0.05 level.

Table 7. Model fitness.

Model	R Square	Adjusted R Square	F-Statistics	Sig (Decision)
Model 1	0.262	0.248	18.463	Supported
Model 2	0.262	0.252	18.857	Supported
Model 3	0.143	0.126	8.649	Supported

a. Predictors: (Constant), Inventory management.

as suggested by model 1. Furthermore, the R-square score suggests that iIM techniques of manufacturing businesses explain 26.2 percent of the variability in market performance. Furthermore, the F-probability statistic's in model 2 was substantial (p-value = 0.000 < 0.05). As shown in model 2, IM is a good predictor of FP.

Furthermore, the R-square score suggests that inventory management strategies of manufacturing businesses explain 26.2 percent of the variability in financial performance. Similarly, in model 3, the likelihood of the F-statistic was substantial (p-value = 0.000 < 0.05). As shown in model 3, IM is a good predictor of client satisfaction. Furthermore, the R-square value suggests that manufacturing businesses' IM techniques explain 14.3 percent of the diversity in client satisfaction.

5. Discussion of Results

The study discovered that IM is a substantial factor of market success (p-value 0.05), as shown in Table 8. This means that if all other variables remain constant, a unit change in IM will result in a 20.3 percent difference in MP. As a result, null hypothesis 1 is rejected. IM has a considerable impact on the market success of Kumasi Metropolis industrial enterprises. These results are backed by empirical evidence. For example, Theng (2016) did a study in Malaysian to

Table 8. Regression results.

Model	β	Std. Error	t-statistics	*p*-value
Inventory management & Market Per	0.203	0.047	4.297	0.000
Inventory management & Finance Per	0.319	0.073	4.342	0.000
Inventory management & Satisfaction	0.210	0.071	2.941	0.005

Constants (Model 1, Market Performance: Model 2, Financial Performance: Model 3, Customer Satisfactions).

evaluate how IM affects the comparative edge of manufacturing SMEs located in Malaysia. Per the findings, inventory lead time, IM, as well as IM systems were all crucial for their comparative edge. Furthermore, Atnafu and Balda (2018) conducted research on the influence of IM on the efficiency overall organisation performance of Ethiopian manufacturing firms.

Furthermore, the research discovered that IM is a strong predictor of financial success (=0.319, t-value = 4.3, *p*-value 0.05). This means that if all other variables remain constant, a unit change in IM will result in a 31.9 percent difference in market performance. As a result, null hypothesis 2 is rejected. IM has a substantial impact on the financial success of Kumasi Metropolis industrial enterprises. These results are in agreements with most previous reports. For instance, Alexander (2018) study concerned Kenyan manufacturing firm's inventory management and performance similar to Ngumi's (2015) and Naliaka and Namusonge's (2015) studies. However, this study was concerned with the manner in which the cost reduction aspect of inventory management affected the performance of these manufacturing firms; how inventory control systems affected their performance; how lead time affected their performance; and how supplier demand affected their performance. Through the study, it was found that the inventory management systems of the firms in question had a positive effect on their being able to practice proper inventory management, and also assisted in their lowering of costs, and therefore, an increase in their profitability.

Ultimately, the research reveals that IM is a major indicator of client satisfaction. Consequently, the null hypothesis 3 is rejected. IM has a considerable impact on the client satisfaction of Kumasi Metropolis industrial enterprises. These findings are based on Rashid's (2015) research in Pakistan. Furthermore, Thogori and Gathenya (2014) did a study in Kenya to investigate the impact of IM on client satisfaction in manufacturing enterprises. The authors discovered a substantial negative association between procurement delays as well as client satisfaction.

6. Conclusion

Employing raw data and a statistical research technique, this research was done to investigate how inventory control affects the operation of manufacturing enterprises in the Kumasi Metropolis. The datasets for the analysis were verified

utilizing Cronbach's Alpha and a preliminary test for the analysis and reliability tests, respectively. Logistic analysis is used to test the survey's hypotheses. The research discovered that inventory control has a major impact on market success. This means that if all other variables stay constant, a unit increase in IM will result in a 20.3 percent difference in market performance. As a result, null hypothesis 1 is rejected. Stock control has a considerable impact on the market success of Kumasi Metropolis industrial enterprises.

Likewise, the research discovered that IM is a major predictor of FP. This means that if all other variables remain constant, a unit change in IM will result in a 31.9 percent difference in market performance. As a result, null hypothesis 2 is rejected. IM has a substantial impact on the FP of industrial enterprises in the Kumasi Metropolis.

Furthermore, the research discovered that IM is a strong predictor of customer happiness. This means that if all other factors stay unchanged, a percent change in IM will result in a 21% change in client satisfaction. As a result, null hypothesis 3 is rejected. IM has a considerable impact on the client satisfaction of Kumasi Metropolis industrial enterprises. Ultimately, the study shows that IM is a factor in the success of manufacturing companies.

7. Recommendations

First and foremost, the research found that IM is a strong predictor of market performance. According to the report, there is a necessity to accelerate inventory management methods in order to boost the marketplace performance of industrial enterprises. The connection of sale value to costs, the scale of production, the effectiveness of manufacturing, the advancement of processes and products, and so on are all aspects of market efficiency. Furthermore, when it comes to advertising effectiveness, the followings stand out. The capacity to reduce delivery costs via the use of cost-effective distribution routes as well as marketing techniques. Setting reasonable and equal rates for customers. Increasing choice for consumers and good value. The capacity to give better technological products to the consumer by developing product as well as service improvements that allow for lower supply expenses and pricing.

Furthermore, the research discovered that IM is a strong predictor of FP. According to the report, manufacturing company management must assure the necessity to implement optimum IM methods in order to improve FP metrics such as return on capital, assets ratio, and profitability ratio.

Once again, the research discovered that IM is a strong predictor of customer happiness. As a result, there is a necessity to enhance IM procedures in order to increase customer happiness, as satisfaction leads to client retention. In terms of customer satisfaction, it is the extent of fulfillment that products and services give, as determined by the proportion of consumers that frequently use a company's goods and services.

The current study looked at how industrial organizations' IM techniques in

Ghana's Kumasi Metropolis impact their performance. According to the research, potential researchers must repeat the issue in diverse industries, including service and commerce.

8. Limitation and Further Research

The study also has some limitations; specifically, the primary data was achieved through a structured (closed-ended) questionnaire that restricts respondents' opinions to the questions within it. Therefore, respondents can make suggestions within the scope of the questionnaire. Furthermore, the main findings and conclusions of the study are limited to manufacturing firms within the Kumasi metropolis in Ghana. In this context, the study suggests that further research could employ a mixed method, allowing the use of both questionnaires and interviews. This will enable research to obtain improved results, conclusions and recommendations. In addition, further research could be conducted order country or include manufacturing companies in order developing economies to improve the generalizability of findings to larger populations. Further research could also focus on other performance dimensions, particularly operational, and sustainable performance, to help address existing literature gaps. This will certainly enrich the results presented. The study was limited to inventory management practices, so potential researchers could also investigate the impact of other variables, including logistics management, sustainable procurement practices, total quality management, and supply chain agility, on the dimensions of firm performance for manufacturing firms in developing economies.

Conflicts of Interest

The authors declare no conflicts of interest regarding the publication of this paper.

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