



The Impact of Just-In-Time Inventory Practices on Operational Performance: An Evidence from The Global Fast-Food Brands Restaurants in Karachi

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ABSTRACT

Purpose: The main objective of the current research study was to examine the impact of just-in-time practices on the operational performance of global fast-food brands in Karachi, Pakistan.

Design/methodology/approach: The sample size of 300 respondents was taken from the global supply chain management professionals at the global fast-food restaurant supply chain through the non-probability, purposive sampling technique.

Findings: For the constructs' items through reliability and regression analysis, examine the relationship between the independent and the dependent variables of the test hypotheses in the research study.

Research limitations/implications: The global fast-food brand's restaurants always need a better understanding of the consumer's perceptions and consumers' demands and better-managed inventories that, in a way, efficiently cater for the demand through the approach of Just in Time. Therefore, the research study focused on the impact of Just-In-Time practice on operational performance in global fast-food restaurants in Karachi.

Originality/value: results indicate that Just-In-Time significantly and positively influences the operational and competitive performance in the restaurants of global fast-food brands. Moreover, recommendations and future implications are also highlighted in the research to suggest the importance of Just-In-Time practices in the restaurants of global fast-food brands.

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Introduction

The supply chain management approach of just-in-time inventory management is essential in global fast-food brands, restaurants, and the manufacturing industry (Sharma, 2021). Therefore, effective inventory management in supply chain management plays a vital role in increasing firm performance. Because of the challenges in managing the inventory, the form of balancing the demand and supply of the inventory in global fast-food brands restaurants (Rusmawati & Soewarno, 2021). In the past, research studies suggested operational performance in the UK. Detailed research has been done regarding the differences between the

two practices and the situations in which they are most suitable. Following the study, it is explained that to create better opportunities for projects in the manufacturing sector, the implementation of JIT and TQM is vital (Wall, 2021).

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The manufacturing practices in different sectors depend on the nature of the work. For example, JIT works mainly for those orders that have to be specially customised and does not work in flow production. Research methods have been discussed in the methodology to be evident so that the study should be authentic (Ahmad Irfangi & Najmudin, 2022). The problems and barriers to both these practices have been debated about which important is as these practices may vary from industry to industry and the nature of work; since the manufacturing industry has been discussed, JIT and TQM practices have been given importance and are talked about in detail (Huma et al., 2022). Just In time is a process where the customer gives a specific order to the firm and gets that product according to his/her requirements, due to which the satisfaction of the customer is paramount as the customer may switch to substitutes if the customer is not satisfied (Hongdiyanto & Liemena, 2021). The example of a furniture industry can be taken when discussing JIT. In the manufacturing industry, it is common for clients to give a particular order according to their requirements. JIT takes extraordinary effort and more time, so the worker who is working in a particular order must be an expert in this area as he may lose a client if he does not have prior experience on his hands and may need training (Mas'udin & Kamara, 2018).

On the other hand, TQM is the approach that also works for achieving customer satisfaction through participating in the improvement of processes, products, services, the culture of work, and the working environment, as all these factors are significant (Tomic & Spasojevic Brkic, 2019). The manufacturing industry is considered one of the UK's highest industries. It is the third largest sector in the UK economy. It is considered diverse because it involves different industries, plans and technologies. The manufacturing sector comes after business and the retail sector. This has been evaluated based on GDP. In 2009, the UK manufacturing industry produced £1.49bn in gross value added (GVA). It shows 11% of the economy of the United Kingdom. They employ around 2.6 million people, 8% of the UK population (KILIC & AKKILIC, 2015). The manufacturing sector involves several industries.

Some of them include the textile industry, the food industry, the paper industry, petroleum products, electrical tools, and the technology sector. Along with the already-developed industries, new industries have started to develop with the increased use of technology (Siraj et al., 2019). According to the study, domestic and global needs will change. The reason would be several factors that are affecting the economy. Some include an income increase, a lifestyle change, and the continuous extension of markets. These factors will affect the growth of the manufacturing industry in the UK. With the rise in new technologies, many industries will be formed in the UK in the coming years (Chun Kyung-mi & Ho-uk Lee, 2017).

Previous researchers have discussed the problems related to the implementation of JIT as well as TQM, but problems with setup time and delivery by suppliers have not been discussed. In any industry, consumers are the primary stakeholders who always need to be satisfied by providing high-quality products. However, consumer and supplier involvement is not discussed in previously published literature, creating a gap in the reader's understanding. This has raised the need for assessment regarding

the operations in the manufacturing sector in different countries.

A prior research study explained that JIT is a production system that improves the relationship with the suppliers, reduces inventories, and reduces Time (Alhamdi et al., 2019). The number of different firms, manufacturing industries, and competition has increased rapidly. Hence, these companies applied the concept of Just-In-Time in operational activities to maintain the minimum level of inventory and significantly improve the delivery of goods to the customers (Phan & Athigakunagorn, 2022).

Problem Statement:

In supply chain management, inventory is essential in many manufacturing industries and global fast-food chain operations. For many needs to be managed, inventory operations in the form of a smooth flow of the operation process fill the customer demands and increase firm performance. Firms always maintain inventory efficiently and effectively using the Just-In-Time approach to increase firm performance. Thus, the current research study examines the impact of Just-In-time inventory practices on the firm's performance in the global fast-food brand's restaurants in Karachi. The main aim and objective of the JIT are to increase productivity and profitability by reducing waste and also a response in the time production process (Pheng & Meng, 2018). Further, there is a need for high quality, valuable price and the right time availability. So, the primary object of Just-in-Time at the operational level is customer satisfaction and increasing consumer purchase intention. The prior research study suggested that Just-in-Time reduces the cost function (Ismail & Al Thani, 2022). Further research studies have explained that just-in-time practices positively impact operational performance, improve quality, and develop flexibility (Ahmad Irfangi & Najmudin, 2022).

Purpose of Study:

The current research study's purpose was to examine the impact of Just-in-Time practices on operational performance in terms of quality, cost, and quality of the restaurants of the global fast-food brands in Pakistan. Further, the strategies of the just-in-time implementation in the restaurants of global fast-food brands enhance operational performance and better their supply chain management operations to save time and cost, gain customer satisfaction, increase consumer purchase intention, and generate revenues. The research study also provides essential information to the managers of supply chain management on how to improve their operations activities using the practices of JIT and how to improve their productivity and provide better performance in their fields. To determine the impact of the Just-In-Time inventory practices on the firm's performance in global fast-food brand restaurants. Examine the factors of the Just-In-Time operational practices associated with firm performance. To examine the factors of Just-In-Time with the relationship of demand management and firm performance

Research Questions:

Research questions are based on the objectives of the research study, and the study has the following research questions:

What is the significant impact of Just-In-Time operational practices on firm performance?

What are the effects of inventory control on firm performance?

What are the effects of the operational practices of Just-In-Time on the global fast-food brand's firm performance?

Scope of Study:

The scope of the research study is limited to the operational performance in the restaurants of the global fast-food brands KFC, McDonald's, Burger King, Pizza Hut, Hardees, Dominos, Pizza, Subway, Gloria Jeans and Baskin Robbins operated in the city of Karachi. The current research study plays a significant role in restaurants of global fast-food brands in managing the inventory level and increasing operational activities, unique the inventory level cost, and enhancing productivity in the operational activities.

Significance of Study:

The current research study was undertaken the global fast-food brands restaurants such as KFC, McDonald's, Burger King, Pizza Hut, Hardees, Domino, Pizza, Subway, Baskin Robbins, Gloria Jeans and Baskin Robbins in the city of Karachi, Pakistan. A few research studies were conducted on the impact of Just-in-time practices such as just-in-time purchasing, just-in-time operation and Just-in-time selling on operational performance, quality, cost and delivery in Karachi. The research study results could be necessary for other service sectors and helpful for future studies. The research study suggested how to achieve success in their business with the use of JIT practices and how to improve their quality, the concept of minimisation cost, and how to improve the delivery of their brands.

Literature Review

The current research study examines the impact of Just-in-Time Practices on the operational performance in the restaurants of global fast-food brands in Karachi, Pakistan. The following chapter describes the review of literature that was conducted using secondary sources such as books, articles, journals, review articles, and websites to investigate the impact of Just in Time (JIT) inventory practices and Time Quality Management (TQM) on the operational performance of a manufacturing sector. Furthermore, this chapter will also evaluate how JIT affects the operational performance of manufacturing industries. In this regard, this chapter has integrated detailed literature that leads to an appropriate conclusion that JIT has a potential impact on operational performance.

Just-in-Time Practices:

The prior research study explains that the just-in-time (JIT) is a management strategy that is used to align the orders of the primary commodity along with the production schedule from the distributors (Stein & Voehl, 2020). To increase efficiency and cut down the waste portion by receiving the goods and commodities only just when there is a requirement for these commodities in the production operations, the organisations enrol on this JIT strategy to reduce inventory expense (Axsäter, 2011). Additionally, just-in-time manufacturing is also called the Toyota production system (TPS), and they first adopted this strategy in the 1970s. In the 1960s and 1970s, the Japanese production system derived this methodology,

which was first adopted by the Toyota Corporation (Takeuchi & Kimura, 2022). The main aim and objective of the JIT are to increase productivity and profitability by reducing waste and also a response in the time production process (Pheng & Meng, 2018). The JIT strategy provides facilities for internal and external communication and lets the manufacturer at the plants buy primary commodities just in time when required; this method can lead to less inventory, economical and reactive production (Rahayu et al., 2022).

Total Quality Management:

The prior research study suggested that total quality management (TQM) is defined as the constant process of discovering and cutting down the errors in production, simplifying the supply chain management, making sure that the employees are trained enough and improving the customer service and experience (Khan et al., 2019). Many organisations adopt the idea of total quality management (TQM) to improve quality performance. The main aim of total quality management (TQM) is to build continuous improvement by implementing all the functions in the organisation to attain a better quality of products, which lets the organisation exceed customer expectations (Luthra et al., 2020). Total quality management (TQM) is a concept that accountability for the entire quality of the completed product lies with all participants in the production process (Luthra et al., 2020). The TQM practices affect financial and non-financial performances, which has been approved through research by characterising the TQM program into several practices, which are implemented in different studies to analyse the impact of TQM on various types of performances (Bouranta, 2020). The most frequent TQM procedures include top management support, product design, strategic planning, process control, use of information quality, quality learning and training, ongoing improvement, customer recognition and engagement, customer focus and providers' involvement (PUTRI, 2019). Certainly, TQM practices should positively improve competitive performance, which is vital in promoting quality, price, delivery efficiency, customer satisfaction and stability (Slack & Singh, 2020).

Operational Performance:

An organisation is very much considered with their performance, ability to cater for the challenges, the satisfaction of the customer, order completion, innovation in the products, inventory cost, product cost, productivity, market penetration, profitability, quality costs, and response to delivery and customer demands fulfilment on time these are the factors on which the performance of an organisation measures (Wardana & Sumarmi, 2019). The operational performance mainly focused on quality, quantity and timeliness, coordination, effectiveness, and independence. Organisations focus on customer requirements that can increase customer satisfaction, ultimately impacting customer loyalty positively, as loyal customers positively contribute to the organisation's performance (Alam, 2020). The prior research study explains the impact of TQM and JIT implementation on an organisation's performance, as just in Time (JIT) has a positive impact on total quality management (TQM). Within the organisation, all the functional levels and strategic correlations with JIT, supply chain management and TQM are used to enhance the operational performance of the organisation (Green et al., 2019). Implementing the TQM and JIT production practices will result in the improvement of performance flexibility. Total Quality

Management (TQM) is utilised to improve the influence of JIT on performance flexibility promptly (Phan et al., 2019). In a past research study, it has discussed that the implementation of JIT can effectively reduce the time of production, finished product and inventory, capital turnover and work in the process. Also, the JIT application improves financial performance, inventory level, and production efficiency (Chaudhuri & Chakrabarty, 2018).

Customer Involvement:

Prior research studies suggested that different factors can affect total quality management (TQM), but the main factor of TQM is customer involvement (Ershadi et al., 2019). The TQM in today's company is built on complex and dynamic technology, resources and tasks, and customer expectation and awareness. The quality of the product is defined by the customer rather than the service, product manufacturer, or organisation because the quality is what the end-user desires and will be defined only through the customer who uses that product (Amadea, 2022). The needs and requirements of the customer efficiently and effectively continuously are factors for the success of any organisation shortly, and they depend on the satisfaction of the customers (Gonzalez, 2019). Customer attention is to the extent that an organisation meets the needs and expectations of the customer. Thus, it is an essential source of total quality management (TQM) for improving and enhancing business performance (Bazrkar et al., 2017)

Process Control Feedback:

The other factor of total quality management (TQM) is process control feedback. The past research study explained that process control is a necessary element of the TQM system; it refers to the control of activities in handling samples and analysis processes to ensure authentic, accurate and reliable testing (Oji & Oke, 2020). The organisation can implement some procedures to gather and integrate customer and employee feedback. There should be some separate process to rectify the TQM system by adjusting the strategy and tactics (Pagell & Shevchenko, 2014). The feedback on process control is based on the long-term quality improvement of the company's products and services (Yazdi & Khayatian, 2020).

Factors of Just-in-Time Practices:

JIT has been recognised with several comprehensive benefits in the manufacturing sector. The benefits are reduced inventory levels, lower inventory investment, higher quality of incoming resources, and consistent, high-quality commodities (Hildesheim & Sonntag, 2019). Increased operational efficiency, consistent workstation loads, standardised components, standardised manufacturing techniques, and cooperative connections with suppliers are some of the other benefits of JIT (Magnus & Rudra, 2019). The ideas, processes, and quality management techniques have been extensively acknowledged, utilised, and researched. Quality management is a critical factor affecting a manufacturing company's long-term viability. Even in the manufacturing sector, however, little empirical study has been done on international dimensions of quality management (Doehring et al., 2020).

Just-in-Time Schedule:

Poor inventory management is often associated with large inventory stocks, and also investigated that JIT is a strategy for controlling inventory. The Japanese auto industry is credited with developing the JIT inventory and management concept (Mtar & Smondel, 2019). It is a method of reducing inventory levels by having goods arrive at production and distribution sites only when they are needed (AIŞEOĞLU & KARAÇİZMELİ, 2022). JIT production is a concept for lowering work-in-progress (WIP) inventory, assisting process improvement, and minimising process variability. In manufacturing, it may be viewed as a new method of thinking, planning, and performing (Tarigan et al., 2018). Companies fail to meet daily production schedules due to a lack of JIT scheduling. Operators are not well-trained to do preventative maintenance, and there is a lack of cooperation to avoid delays (Luong et al., 2019). To properly use the JIT methodology, companies must establish a strong working relationship with their suppliers. Resources and supplies must arrive precisely when they are necessary. Thus, the organisation must have a dependable supplier to ensure inventory is delivered on Time (Nepal & Krishnadevarajan, 2015). Inventory management techniques are critical for an industry's high-performance capabilities since increased production network execution and information to representatives are required for the company's success and cost reduction (Elvin & Munawar, 2019).

Just-in-Time Delivery by the Supplier:

A just-in-time (JIT) procurement and supply system is critical in a production system for lowering costs and swiftly responding to client demands (Bellizzi et al., 2021). The effective adoption of a JIT system necessitates supplier and manufacturer partnerships in small lot-size delivery and inbound logistics cost reduction (Wang & Chen, 2019). Just-in-time delivery has been increasingly widespread in the last two decades. In practice, however, just-in-time execution depends on negotiating strength and demand-supply relations (Heck & Zaidman, 2015). Most suppliers must transfer supplies to third-party warehouses (TPW) and then ship from the TPW to the manufacturing assembler in certain circumstances, such as the car or computer assembly sectors (Sawant & Sarode, 2021). This information helps the manufacturer set up a just-in-time manufacturing and delivery system with merchants. The integration of retailers' marketing (e.g., price) and production choices (e.g., lot sizes) is viable and implementable to decrease the loss of degradation and boost responsiveness to client demand (Wang et al., 2020). JIT places a strong emphasis on quality. It is shifted from the specialist's perspective to that of the process's lead operator. It is moved from the specialist's point of view to the process's lead operator's point of view (Jiang et al., 2021). The main goal is to have no faults or to "get it correctly the first time," the supervisors should treat the people doing the task as consumers. Quality is shown when inventories are lowered (Gibson, 2019).

Impact of Just-In-Time on Operational Performance:

In the present era, every industry is utilising different technologies. With the increased workload rate, every industry tries to implement its functionalities best (Nagar et al., 2021). Different techniques are used in supply chain management to tackle different departments used for different purposes (Pal et al., 2019). Some of the techniques include the JIT and TQM. Just in Time (JIT) is one of the

methodologies that is used in manufacturing and inventory system in the UK to improve efficiency and reduce waste. This supply chain management plan helps the manufacturing industry to properly connect and direct the delivery person to the production team and the consumer's order (Sharma, 2021). The methodology of JIT in the manufacturing industry helps to reduce the delivery time, and it also seems to have a cost-effective method in the industry (Ouma et al., 2013). JIT, when implemented, reduced the waste in any material occurring. The manufacturing industry does this by only utilising the needful material and stopping the production of the other material. This helps to reduce the loss (Nandhini & Karthikeyan, 2022). It also helps to increase the performance percentage of the employee. Similarly, total quality management is another methodology used to deliver high-quality products successfully. Total quality management is assumed to be the foundation of all the activities that are being done for order delivery (Dahlgaard-Park, 2014). It aims to produce and deliver the products within a given time frame and adminis to meet consumer demands (Dal Pont et al., 2008). This strategy also increases the productivity of the industry of global fast-food brands and also increases the market share (Jiang et al., 2021)

Theoretical Conceptual Research Framework:

The conceptual framework includes the dependent variable and the independent variable. It indicates the number of variables in the study and shows how they are related and interact. It reflects the ideas and the patterns of the study. This study includes the factors which are affecting the manufacturing industry in the UK and the implementation of JIT and TQM on operational performances. The advantage of creating the conceptual framework is that it lets the researcher solve many practical problems. The prior research study evaluated that the application of general systems theory to JIT supply chains is critical to determine if the theory holds in the purchase, manufacture, and distribution of supply chain organs while doing these tasks in a JIT context (Mishra et al., 2013). It is commonly known that Just-In-Time techniques were initially established to remove all non-value-added tasks to reduce production costs (Yang et al., 2021). To retain customer satisfaction and achieve organisational success, manufacturing firms must create competitive ways to produce less expensive, faster, and better (Naseer, 2017). Regarding the Time manufacturing approach as a philosophy and a disciplined production technique, the strategic, tactical, and operational levels are all involved in supply chain management (Kong & Rönqvist, 2014). Company management makes high-level strategic supply chain choices that impact the whole firm at the strategic level. The manufacturing procedures should align with the company's core business plan. The supply chain's scope is determined at the tactical and operational levels. Product innovation, consumers, production, suppliers, and logistics are among them (Rojniruttikul, 2019). Just-in-Time (JIT) manufacturing is a philosophy intended to eliminate all types of discriminating wastes caused as a consequence of time, effort, and storage space variance in the manufacturing process throughout the whole system (Muthoni, 2015).

Queuing Theory:

The theory queuing will guide the research study of the impact of Just-In-Time operational practices in global fast-food brands and examine the relationship between the factors of Just-In-Time

such as Just-In-Time Operations, Just-In-time Purchasing, Just-In-Time Selling with the dependent variable of firm performance. The queuing theory is the mathematical study of operational activities in the form of waiting operations in lines or queues (Yaduvanshi et al., 2019). Therefore, the queuing theory examines the mathematical analysis in the manufacturing industry to balance customer demands and inventory management, including waiting for operational activities in the queue (Malaga & Vinodh, 2022)

Conceptual Framework:

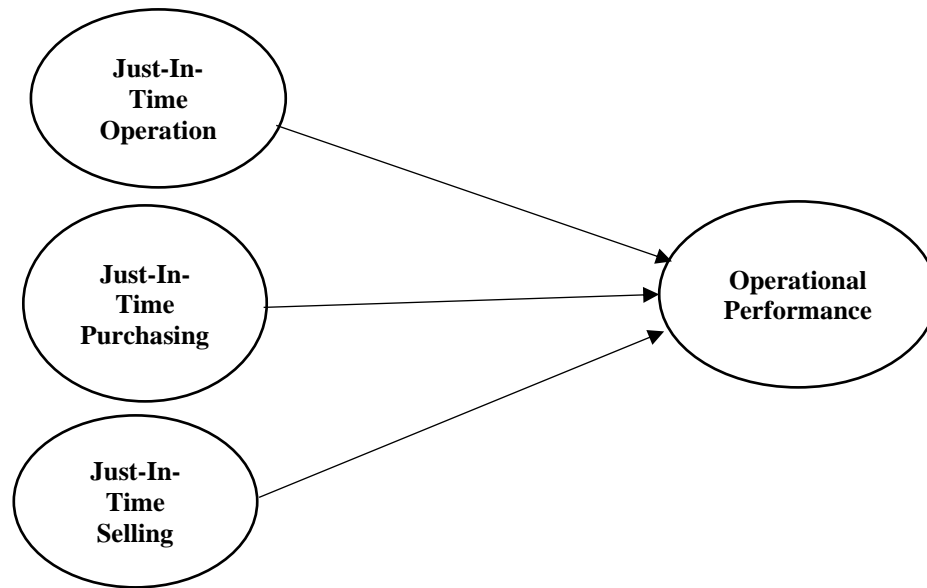


Figure 1: conceptual frame

Hypotheses:

- H1:** Just-In-Time Operation has a positive impact on Operational Performance
- H2:** Just-in-time purchasing has a positive impact on Operational Performance
- H3:** Just-In-Time Selling has a positive impact on Operational Performance

Methodology

Research approach

The research approach defines the plan that will be followed for the study, data selection, and analysis. The two main kinds of research approaches are inductive and deductive. The inductive approach is mainly concerned with hypothesis generation at the end of the study, and no theories are used. It is mainly used in qualitative analysis (Liu, 2016). As this research is based on the analysis of quantitative data, the deductive approach is used as the research approach.

Data Collection Method

Data collection procedures are essential because the investigator's methodology and analytical

approach have an impact on how the information has been utilised and the conclusions that may be drawn from it (Middeke et al., 2010). This strategy requires a detailed examination of research difficulties to regulate and handle the collection of data or facts. The current research study used the 5-point Likert scale to create the questionnaire (Baran, 2021). The information was gathered from employees of different global fast-food brands, restaurants, and outlets operated in operations and manufacturing departments. Past research studies suggested that non-probability sampling is a random method that does not provide any foundation for a probability estimate of the components in the universe that will be incorporated into the sample size. Since the research is quantitative, a non-probability purposive sampling technique has been used (Kim, 2017).

Result

In the current research study, the questionnaire was taken from the prior research study, and then the items of the adapted questionnaire were proven to have content validity. For the reliability of the analysis, the most critical test for the internal consistency of the questionnaire items is Croh's alpha coefficient.

Reliability:

| Construct | Items | Reliability |
|-------------------------|-------|-------------|
| Just-In-Time Purchasing | 06 | 0.824 |
| Just-In-Time Operation | 06 | 0.857 |
| Just-In-Time Selling | 06 | 0.920 |
| Operational Performance | 13 | 0.897 |

Table 1: reliability test for JIT Purchasing, JIT Operation, JIT Selling, Operational Performance

Frequencies:

The current research study considered a sample size of n=300 to examine the impact of Just-In-Time on the operational performance of global fast-food brand restaurants in the context of Pakistan, Karachi.

| | | |
|---|--------------|------------|
| N | Valid | 300 |
| | Missing | 0 |

Table 2: Gender of the Respondent

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---------|--------|-----------|---------|---------------|--------------------|
| Valid | Male | 188 | 41.9 | 62.7 | 62.7 |
| | Female | 112 | 24.9 | 37.3 | 100.0 |
| | Total | 300 | 66.8 | 100.0 | |
| Missing | System | 000 | 33.2 | | |
| Total | | 449 | 100.0 | | |

Table 3: Gender of the Respondent

In the table of the respondent profile, the respondent of the male frequency is 188, and the respondent frequency of the female is 112 in the current research study to examine the impact of Just-In-Time on the operational performance in the field of restaurants of the global fast-food brands.

| | Mean | Std. Deviation | N |
|------------------------|-------|----------------|-----|
| Just_In_time_Selling | 20.80 | 4.524 | 300 |
| Just_In_Time_Operation | 23.83 | 3.548 | 300 |
| Just_In_Time_Purchase | 23.51 | 3.537 | 300 |
| Operation_Performation | 51.69 | 6.513 | 300 |

Table 4: standard deviation

Regression Analysis:

Just-In-Time Operation Relationship with Operational Performance

H1: Just-In-Time Operation has a positive impact on Operational Performance

| Model | R | R Square | Adjusted R Square | Std. Error |
|-------|-------------------|----------|-------------------|------------|
| 1 | .893 ^a | .797 | .796 | 2.940 |

Table 5: Model Summary

a. Predictors: (Constant), Just_In_Time_Operation

The table explains the values of the coefficient of R, the value of R square, and the value of Adjusted regarding independent and the dependent variable operational performance. The results indicate R-Square in the table of model summary is 0.797, which means that 79% explain that the independent variable Just-In-Time explained the dependent variable operational performance. Thus, the independent variable Just-In-Time has a significant positive impact on operational performance.

| Model | | Sum of Squares | df | Mean Square | F | Sig. |
|-------|------------|----------------|-----|-------------|----------|-------------------|
| 1 | Regression | 10109.152 | 1 | 10109.152 | 1169.734 | .000 ^b |
| | Residual | 2575.394 | 298 | 8.642 | | |
| | Total | 12684.547 | 299 | | | |

Table 6: ANOVAa

a. Dependent Variable: Operation_Performation

b. Predictors: (Constant), Just_In_Time_Operation

The above table examines the significant impact of the variable of Just-in-time on the dependent variable operational performance with P-value=0.000, which is less than 0.005, which showed good model fit and indicates a positive association between the independent and the dependent variable.

| Model | | Unstandardised Coefficients | | Standardised Coefficients | T | Sig. |
|-------|------------------------|-----------------------------|------------|---------------------------|--------|------|
| | | B | Std. Error | Beta | | |
| 1 | (Constant) | 12.634 | 1.154 | | 10.944 | .000 |
| | Just_In_Time_Operation | 1.639 | .048 | .893 | 34.201 | .000 |

Table 7: Coefficients

a. Dependent Variable: Operation_Performance

Table shows that coefficient explains the value of Beta is 0.893, which is positive, and the p-value is 0.000, which is less than 0.005. shows that the independent variable, Just-In-Time, has a positive impact on the dependent variable operational performance

Just-In-Time Purchasing and Relationship with Operational Performance

H2: Just-in-time purchasing has a positive impact on Operational Performance

| Model | R | R Square | Adjusted R Square | Std. Error |
|-------|-------------------|----------|-------------------|------------|
| 1 | .663 ^a | .439 | .437 | 4.885 |

TABLE 8: Model Summary

a. Predictors: (Constant), Just_In_Time_Purchase

The value of R-Square is 0.439, which explains that the independent variable, Just-In-Time 43%, causes the dependent variable operational performance. Therefore, the independent variable Just-In-Time Purchase 43% impact on firm performance.

| Model | | Sum of Squares | df | Mean Square | F | Sig. |
|-------|------------|----------------|-----|-------------|---------|-------------------|
| 1 | Regression | 5572.835 | 1 | 5572.835 | 233.517 | .000 ^b |
| | Residual | 7111.712 | 298 | 23.865 | | |
| | Total | 12684.547 | 299 | | | |

Table 9: ANOVAa

a. Dependent Variable: Operation_Performance

b. Predictors: (Constant), Just_In_Time_Purchase

In Table 4.50, ANOVA explains the model fit of the research study, and the value of the P-value is equal to 0.000, which is less than 0.005—which explains the good model fit of the research study. Thus, the independent variable, Just-In-Time Purchase, has a positively statistically significant relationship with the firm performance.

| Model | | Unstandardised Coefficients | | Standardised Coefficients | T | Sig. |
|-------|-----------------------|-----------------------------|------------|---------------------------|--------|------|
| | | B | Std. Error | Beta | | |
| 1 | (Constant) | 22.992 | 1.899 | | 12.109 | .000 |
| | Just_In_Time_Purchase | 1.221 | .080 | .663 | 15.281 | .000 |

Table 10: Coefficients

a. Dependent Variable: Operation_Performance

The Sig-value is equal to 0.000, which is less than 0.005; the result indicates that the independent variable, Just-In-Time Purchase, positively impacts firm performance.

Just-In-Time Selling Relationship with Operational Performance

H3: Just-In-Time Selling has a positive impact on Operational Performance

| Model | R | R Square | Adjusted R Square | Std. Error |
|-------|-------------------|----------|-------------------|------------|
| 1 | .304 ^a | .093 | .090 | 6.215 |

Table 11: Model Summary

a. Predictors: (Constant), Just_In_time_Selling

In the table of Model Summary, the value of R = 0.304 explains the predictor of the independent variable of the dependent variable of firm performance. The value of R Square is 0.93, which explains the independent variable of Just-In-Time Selling 9.3% explains the dependent variable of firm performance.

| Model | Sum of Squares | df | Mean Square | F | Sig. | |
|-------|----------------|-----------|-------------|----------|--------|-------------------|
| 1 | Regression | 1174.641 | 1 | 1174.641 | 30.412 | .000 ^b |
| | Residual | 11509.906 | 298 | 38.624 | | |
| | Total | 12684.547 | 299 | | | |

Table 12: ANOVA^a

a. Dependent Variable: Operation_Performance

b. Predictors: (Constant), Just_In_time_Selling

Explain that the P-value=0.000, which is less than 0.005, explains that good model fit. Thus, the independent variable, Just-In-Time Selling, has a positive relationship with the dependent variable, firm performance.

| Model | | Unstandardised Coefficients | | Standardised Coefficients | T | Sig. |
|-------|----------------------|-----------------------------|------------|---------------------------|--------|------|
| | | B | Std. Error | Beta | | |
| 1 | (Constant) | 42.575 | 1.691 | | 25.180 | .000 |
| | Just_In_time_Selling | .438 | .079 | .304 | 5.515 | .000 |

Table 13: Coefficients

a. Dependent Variable: Operation_Performance

In the coefficient table, the results indicate that the value of beta=0.79, which is positive. The value beta value of 0.079 explains that when the independent variable, Just-In-Time Selling, increases by one unit, then the dependent variable, firm performance, increases by 0.79.

| Hypotheses | Beta -Value | Sig -Value | Empirical Conclusion |
|--|-------------|-------------------|----------------------|
| H1: Just-In-Time Operation has a positive impact on Operational Performance | .893 | .000 ^b | Supported |
| H2: Just-in-time purchasing has a positive impact on Operational Performance | .663 | .000 ^b | Supported |
| H3: Just-In-Time Selling has a positive impact on Operational Performance | .304 | .000 ^b | Supported |

Table 14: Hypotheses Assessment Summary

Findings

The current research study examines the impact of Just-In-Time on operational performance in the restaurants of global fast-food brands in Pakistan. The research study suggested that Just-In-Time has a positive impact on operational performance, the purpose of this research is to look into the impact of JIT on an organisation's competitive performance. The quantitative research design was utilised for this study since it assessed the impact of JIT inventory techniques on operational performance. The study is primarily based on the collection and analysis of quantitative data, and the researcher has selected a positivist research philosophy that is ideal for this type of study, as well as a deductive research approach. The correlation and regression tests were performed to assess the relationship between the variables and to evaluate the reliability and authenticity of the data gathered using the primary method (Reid & Allum, 2019). Customers' suggestions for the development of new products are also taken into consideration. In the same vein, it has been revealed that JIT inventory decreases cost considerably, can decrease the firm's lead time, can increase customer satisfaction by lowering prices, can assist in growing the company's share of the market, and therefore can help to minimise the customer's delivery schedule.

The conclusion of the research highlighted the significance of the research implication; the summarised findings revealed that the impact of JIT in relevance with operation performance had significant contributions to the policy, theory and practice. The research contributed to the existing literature through the findings of the current study, which had to explain that just-in-time and total quantity management had a significant impact on operational performance in manufacturing, which can

be implicated for the policymakers to strategically design the guidelines focusing on Just-In-Time to improve the operational performance of the organisation. Furthermore, the research implicated includes the theoretical aspects of the research, which enhanced the literature by providing a significant impact of the variable to study more in the future. The research implications are significant for the government, higher authorities and supply chain professionals to consider the findings for policy-making and manufacturing setup to alter in the light of current research to improve the performance of the company and its manufacturing performance.

Future research will have a greater scope for mixed methods to examine the impact through quantitative analysis and provide a brief analysis through descriptive approaches, employing qualitative research methods to evaluate the impact of research in an effective manner. Since the study had opted for a quantitative method and a small sample size was used in the research, future research can use a larger population to collect the data sets. The scope of research is limited and can be applied to the large-scale economy. Furthermore, the domain of the research operational performance is an important aspect of supply chain performance, and it can be evaluated further using more independent variables to find precise results. Moreover, the research is limited to the restaurants of the global fast-food brand's direction to use other industries to find the global impact of the research as future direction.

Conclusion

Every industry in today's world makes use of diverse technology. Due to the growing burden, every sector attempts to implement its functions as efficiently as feasible. Supply chain management employs a variety of approaches to address the needs of various departments (Huddiniah et al., 2019). JIT improves productivity and profitability by decreasing waste and allowing for faster response times in the manufacturing process (Butov and Kovalenko, 2018). Concerning the current study undertaken, the primary aim of the research was to evaluate the impact of JIT on the competitive performance of organisations. In this regard, the research concluded that there is a positive as well as significant impact of JIT operational practices on the competitive performance of organisations. Organisations focus on customer requirements to boost customer satisfaction, which can positively impact customer loyalty, as loyal consumers reflect favourably on the organisation's performance. To improve the organisation's operational performance, all functional levels are utilised, as well as strategic connection with JIT. Besides that, concerning reliability, correlation and regression analysis, the study concludes that all the variables are correlated to one another, having a positive as well as significant impact on the competitive performance of organisations. aptitudes needed for the work.

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