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AFFECT OF PRODUCTION AND OPERATIONS MANAGEMENT FOR IMPROVING OF ORGANIZATIONAL PERFORMANCE IN GOKUL INDUSTRIAL ESTATE

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Abstract

Introduction: Research has consistently established a significant link between production and operations management (POM) practices and organizational financial performance (OFP) across various contexts, the mechanisms driving this connection remain unclear.

Objectives of study: This study addresses this gap by examining the integration in the relationship between POM practices and OFP within industrial estate.

Review of literature: Drawing on established theories and concepts such as the resource based view (RBV) of firm and operation strategies.

Research methodology: This study employed a quantitative research design. Survey data were collected from 10 managers in Gokul Industrial Estate and analyzed using structural equation modeling (SEM).

Data analysis: The results confirmed a positive and significant association between POM practices and OFP. Additional study on the impact of POM practices on OFP, thereby understanding its role in transmitting positive effects to financial performance. This research contributes to the field by integrating POM practices affect financial performance in Gokul Industrial Estate.

Conclusion: Through this, our understanding of these relationships for practitioners and researchers alike is enhanced.

Keywords: Production and Operations Management practices, Organizational Financial Performance, Gokul Industrial Estate

1. INTRODUCTION:

Production and operations management (POM) is vital disciplines in the contemporary business environment, playing key roles in ensuring the efficient flow of materials, information, and resources across organizational boundaries. Recent research emphasizes the importance of integrating POM practices to enhance organizational performance.

Through leveraging established theories such as the resource-based view (RBV) theory; emphasizing unique resources and capabilities for competitive advantage : and investigating operations strategies (which aligns operations with an overall strategy for a competitive edge , this paper explores how integrating POM can enhance financial outcomes. This paper study on the existing knowledge by investigating the mechanisms and strategies through which POM practices positively influences organizational financial performance.

In the subsequent section, provide an overview of related theories and concepts, outlining our research model and hypotheses, laying the foundation for our empirical investigation. Following this, in elucidate the methodology employed to operationalize the objectives of this study. Lastly, in engage in a comprehensive discussion of the theoretical and practical implications of our research, while also addressing key limitations along with future research directions and conclusions.

2. LITERATURE REVIEW:

These propositions and generalities inclusively form the frame that guides our disquisition of how POM practices influences organizational fiscal performance.

The resource- grounded view (RBV) proposition, as advanced by Barney, offers a abecedarian perspective. In our environment, the RBV proposition provides a precious lens through which we can comprehend how the integration of POM creates a competitive advantage. In addition, the operations strategy conception, as articulated by Hayes and Wheelwright, underscores the strategic alignment of an association's overall pretensions with its functional conditioning.

According to Womack etal., emphasizes functional effectiveness and cost reduction. Understanding the practical perpetration of spare principles and their impact on fiscal performance is vital. An in- depth analysis of how TQM practices within POM contribute to fiscal issues would give precious perceptivity. This deeper examination will enhance the robustness of our theoretical frame and the posterior empirical analysis.

POM Practices

Production and operations management (POM) is a mandate extends from designing and planning these processes to efficiently converting inputs into outputs, which is achieved with meticulous resource management, including labor, materials, and technology utilization.

According to Flynn etal. suggested that POM practices, similar as spare manufacturing and just- by-time product, offer a formative donation to SCM integration. spare manufacturing depths in on waste reduction, resource optimization, and product inflow improvement. Effective POM practices, including TQM, PCD, and JIT systems, can therefore fortify collaboration and integration within the force chain.

POM Practices and Organizational Financial Performance

According to Dao etal. attests that associations that embrace sophisticated POM practices instanced by effective product planning, force operation, and quality control — tend to chart a course toward superior fiscal performance. These practices (by enriching functional effectiveness, abridging costs, and elevating product quality), engender heightened profitability and overarching fiscal substance.

Study by Csiki etal. exhumed a positive interrelation between POM practices and firm performance. Their findings illustrated that association is effectively entwining product process with force chain conditioning witness an supplement in profitability and returns on investment. This emulsion empowers associations to fine tune resource allocation, waste minimization, and overall functional efficacity, therefore climaxing in an perfected fiscal outlook.

According to Fullerton et al. shed light on the affirmative sway of POM practices, including JIT, on financial performance metrics, encompassing sales growth and asset turnover. Others have corroborated that the assimilation of cutting-edge manufacturing technologies, concomitant with effective POM practices, begets enhanced financial performance

3. OBJECTIVES OF STUDY:

- To know the effect of POM practices on organizational financial performance in Gokul Industrial Estate.
- To study the relationship between POM practices and organizational performance in Gokul Industrial Estate.

4. HYPOTHESIS OF STUDY:

H1. POM practices are positively related to SCM integration.

H2. POM practices are positively related to organizational financial performance.

5. RESEARCH METHODOLOGY:

1. Sample and Data Collection Procedure:

The sample comprised 20 manufacturing firms, which is considered representative as it accounts for about 29.6% of all manufacturing firms in Gokul Industrial Estate. In cases where specific POM managers were not present due to the prevalence of small and medium-sized enterprises (SMEs) in Gokul industrial estate, managers responsible for POM activities, such as quality, plant, and purchasing managers has instead targeted.

The data collection is a simple random sampling method to select the participating firm. Data collection took place over a period from January to March 2024. The selected firms were approached to person visits by one of the authors, and each received a cover letter explaining the study objectives and the confidentiality of responses for study purposes. 20 questionnaires were collected; however, 10 of them were considered unusable due to missing data, leaving 10 questionnaires that could be used for analysis. The effective response rate for the study was 29.85%, indicating a satisfactory level of participation.

2. Measurement:

The survey questionnaire was initially designed in English and then later translated into Kannada to ensure accessibility and comprehensibility for the respondents. The measurement scales used in the survey show sufficient levels of reliability in the original published study. To further assess the face validity, the questionnaire underwent evaluation by 10 academics specializing in POM and five managers with ample knowledge and experience in manufacturing firms. Their feedback was taken into consideration, and important refinements were made to improve the questionnaire clarity and relevance. Participants were asked the questionnaire to evaluate their performance relative to their competitors using a five-point Likert scale, where 1 denoted “very disagree” and 5 indicated “very agree”.

3. Statistical and Analytic Approaches:

In this study, POM was chosen as the analytical tool through which to evaluate the relationships between OFP in alignment with the established practices in the social sciences . The comprehensive nature of POM, coupled with its ability to evaluate model fit, makes it an ideal choice for scrutinizing the interplay between these constructs, thereby enhancing the robustness and depth of our empirical analysis.

6. DATA ANALYSIS:

Study on the impact of POM practices on OFP, thereby understanding its role in transmitting positive effects to financial performance. This research contributes to the field by integrating POM practices affect financial performance in Gokul Industrial Estate. There are Two-model assessment of Data analysis in this study is Measurement Model Assessment and Structural Model Assessment

1. Measurement Model Assessment:

Table No.1 showing measurement model results

Sl.No.	Factor	Statistical Result
1	Measurement Model Assessment	$p < 0.01$

(Source: Field survey in Gokul Industrial Estate)

Interface:

Items that showed in table No.1 factor loadings of at least 0.50 were retained, providing evidence for measurement scales. Furthermore, all items in the measurement scales were statistically significant ($p < 0.01$), supporting the requirements for convergent validity.

Table No.2 showing discriminate validity results

Sl.No.	Factor	Statistical Result							
1	Discriminate validity	$\chi2$ = 405.736	df = 193	$\chi2$/ df = 2.102	CFI = 0.911	TLI = 0.900	IFI = 0.912	SRMR = 0.069	RMSEA = 0.073

(**Source:** Field survey in Gokul Industrial Estate)

Interface:

Table No.2 showed that the overall dimension model displayed satisfactory fit indicators $\chi2$ = 405.736, df = 193, $\chi2$/ df = 2.102, relative fit indicator(CFI) = 0.911, Tucker – Lewis indicator(TLI) = 0.900, incremental fit indicator(IFI) = 0.912, standardized root mean square residual(SRMR) = 0.069, and a root mean square error of approximation(RMSEA) = 0.073.

2. Structural Model Assessment:

Table No.3 showing direct effect results

Sl.No.	Factor	Statistical Result							
1	**Direct effect**	χ^2 = 15.285	df = 6	χ^2/df = 1.548	CFI = 0.989	TLI = 0.915	IFI = 0.988	RMR = 0.026	RMSEA = 0.066

(**Source:** Field survey in Gokul Industrial Estate)

Interface:

Table No.3 showed that the model fit statistics showed acceptable values, indicating that the model adequately fits the data (χ^2 = 15.285, df = 6, χ^2/df = 1.548, CFI = 0.989, TLI = 0.915, IFI = 0.988, RMR = 0.026, and RMSEA = 0.066).

Table 4 showing indirect effect results

Sl.No.	Factor	Statistical Result	
1	**Indirect effect**	β = 0.579	*p* = 0.001

(**Source:** Field survey in Gokul Industrial Estate)

Interface:

Table No.3 showed that the impact of POM practices on OFP was found to be positive and significant (β = 0.579, *p* = 0.001), thus providing support for H2.

7. RESULT:

Reported in Table 4, the results revealed significant direct impacts of POM practices (β = 0.579, *p* = 0.001), supporting H2. This suggests that POM practices positively affect the level of OFP integration within the organization.

The results of the mediation analysis showed that the impact of POM practices on OFP. As shown in Table 4, the mediation impact of the SCM integration on the impact of POM on OFP was found to be 0.083, with the CI_{LB} at 0.075 and the CI_{UB} at 0.243. To compute the total impact of POM on OFP, both the direct and indirect impacts of POM on OFP were summed. The total impact of POM on OFP was calculated to be 0.662, which is the sum of the direct impact of POM on OFP (0.579) These findings demonstrate the importance of influencing on the relationship between POM practices and OFP.

8. DISCUSSION:

The findings of this study show that the positive impact of POM practices on OFP (Hypothesis 2), emphasizing the financial benefits organizations can reap by focusing on efficient production and operations. This is the line with prior research that showed a strong link between POM practices and financial performance. The positive relationship between POM and OFP further reinforces the idea that operational excellence and effective production management are crucial drivers of overall organizational success and profitability. These factors contribute to the positive and significant mediation effect observed in this study. Organizations should recognize that their POM practices and supply chain integration are interdependent and should be strategically aligned to achieve optimal performance outcomes.

9. IMPLICATION OF RESEARCH:

The findings of this study underscore the importance of strategic investment in POM practices to enhance OFP. Managers should consider adopting TQM principles to ensure that quality is maintained throughout the production process. Study of POM practices, organizations can achieve cost savings, and gain a competitive advantage for leading to improved financial outcomes. Managers should concentrated on creating a well-

integrated supply chain that facilitates seamless with communication and collaboration among all supply chain partners. An integrated supply chain enables organizations to respond quickly to market changes, reduce operational costs, and enhance overall supply chain efficiency this gives to positively affect financial performance.

10. CONCLUSION:

To conclude, this study has delved into the intricate relationships among POM practices, and OFP within the context of Gokul Industrial Estate. Our findings underscore the significant influence of POM practices on OFP, validating their role as critical drivers of operational efficiency and financial success. The highlighted in this study is function in translating effective POM practices into enhanced financial performance. These insights offer valuable guidance to practitioners in the Gokul Industrial Estate, emphasizing the importance of aligning production strategies with supply chain integration efforts to achieve sustained competitive advantage and superior financial outcomes.

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