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EMPLOYEE AUTONOMY AND INNOVATION OF THE MANUFACTURING FIRMS IN RIVERS STATE

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Abstract: *This study examines the impact of employee autonomy on innovation in manufacturing firms in Rivers State, Nigeria. The accessible population for this survey study comprised 1,780 employees from six selected manufacturing firms in Rivers State. A sample size of 317 was determined based on Krejcie and Morgan's (1970) table. The findings reveal a significant positive relationship between decision-making autonomy and both idea generation and process implementation, indicating that empowering employees with decision-making authority fosters creativity and effective adoption of innovative practices. Similarly, method autonomy enhances both the generation of new ideas and the successful implementation of new processes, suggesting that allowing employees the flexibility to choose how they perform their tasks promotes innovation. The study recommends that manufacturing firms promote employee autonomy by reducing micromanagement, encouraging flexible decision-making, and providing resources that support adaptive work methods. These actions are essential for innovation and enhancing the overall performance of manufacturing firms in Rivers State.*

Keywords: *Decision-Making Autonomy, Method Autonomy Idea Generation, Process Implementation.*

INTRODUCTION

In a dynamic and globalized market, where technological advancements and changing customer demands shape industries, innovation allows companies to stay ahead of competitors (Porter, 1990), hence innovation is a key factor for ensuring competitiveness and sustainability. For manufacturing firms, this means developing new processes, products, or business models that increase efficiency, reduce costs, and improve product quality. Through innovation, firms can not only differentiate their products but also reduce production costs by optimizing processes. According to Schumpeter's (1934) theory of creative destruction, businesses that fail to innovate risk becoming obsolete, as new technologies and processes continuously reshape industries. By continuously innovating, manufacturing firms can leverage new technologies to maintain or improve their market position.

Process innovation in manufacturing firms is critical to enhancing operational efficiency. By improving production methods, adopting automation, and incorporating advanced manufacturing technologies such as artificial intelligence (AI) and robotics, firms can streamline their operations (Teece, 2018). This can lead to a reduction in waste, lower labour costs, and shorter production cycles. For example, the implementation of lean manufacturing and just-in-time (JIT) inventory systems has allowed many firms to optimize resource use and minimize inefficiencies. Firms that embrace innovation in their production processes tend to experience higher productivity and are

more adaptable to changing market conditions (World Economic Forum, 2018). As a result, process innovation is not only about cost savings but also about positioning firms to respond quickly to evolving market demands.

Product innovation plays a critical role in addressing evolving consumer preferences and ensuring long-term growth for manufacturing firms. As consumer needs become more sophisticated, firms are under increasing pressure to develop products that are not only of higher quality but also sustainable and aligned with environmental standards. The rise of eco-friendly manufacturing and green products is a direct response to this trend (Bocken et al., 2014). Firms that innovate in product development can tap into new market segments and create value through differentiated offerings. For example, electric vehicle manufacturers have revolutionized the automotive industry by responding to consumer demand for eco-friendly transportation options. By aligning product innovation with customer expectations, manufacturing firms can secure a larger share of the market while also contributing to sustainable development.

Innovation is essential for the long-term growth and resilience of manufacturing firms, especially in the face of external challenges such as economic downturns, supply chain disruptions, or global crises like the COVID-19 pandemic. Firms that are able to innovate quickly are more likely to adapt to these changes and continue thriving. For instance, during the pandemic, many manufacturing firms innovated by shifting to the production of essential items like personal protective equipment (PPE) and medical supplies, demonstrating the role of innovation in navigating unforeseen circumstances (OECD, 2020). Moreover, innovation fosters resilience by encouraging continuous improvement and learning, enabling firms to remain agile and responsive in uncertain environments. This adaptability, combined with an ongoing commitment to innovation, equips firms with the tools necessary to capitalize on new opportunities while mitigating risks associated with external disruptions.

In today's rapidly changing and highly competitive business landscape, innovation is increasingly viewed as a crucial factor for organizational success (Anderson, Potočnik, & Zhou, 2014). Companies are realizing that innovation is not solely driven by top-down directives but can be significantly influenced by empowering employees at all levels. One critical element that enhances innovation within the workplace is **employee autonomy.** Employee autonomy refers to the degree of freedom, independence, and discretion employees have in making decisions related to their tasks, work methods, and schedules. When individuals are granted greater autonomy, they are more likely to take ownership of their work, experiment with new ideas, and explore creative solutions—all of which are essential for driving innovation.

Zhou (2021) indicates that autonomous work environments tend to foster higher levels of employee engagement, motivation, and job satisfaction, which are pivotal in stimulating innovative behaviours. Autonomy encourages employees to challenge the status quo, think outside the box, and devise novel solutions to existing problems. By granting employees the flexibility to make decisions and choose how they approach tasks, organizations cultivate a culture of trust and accountability, which further promotes creativity and innovative practices (Saragih, 2011). However, the relationship between employee autonomy and innovation is not straightforward and may vary depending on organizational structures, industries, and leadership styles. Understanding how various dimensions of autonomy, including decision-making autonomy and method

autonomy, impact innovation is crucial for creating work environments that foster and enhance creative potential (Yidong & Xinxin, 2013).

Despite the wealth of literature on employee autonomy and innovation independently, there is a noticeable lack of empirical studies focusing specifically on the relationship between employee autonomy (Zhou, 2021; Saragih, 2011; Yidong & Xinxin, 2013) and innovation (Teece, 2018; World Economic Forum, 2018; OECD, 2020) in manufacturing firms within Rivers State. Employee autonomy, which empowers workers with decision-making freedom, is increasingly recognized as a key driver of innovation (Emmanuel, 2024). In the context of manufacturing, where process efficiency and product development are critical, the influence of autonomy on fostering creativity and generating new ideas remains underexplored.

The motivation for this study arises from the need to empirically examine this relationship within the manufacturing sector in Rivers State, By addressing this gap, the study will contribute to a deeper understanding of how employee autonomy can be harnessed to enhance innovation in manufacturing firms. Moreover, the findings are expected to offer valuable insights for both academics and practitioners, providing evidence-based strategies for organizations seeking to boost their innovative capacity through empowering their workforce. The research will thus bridge this gap and contribute to both theory and practice in the areas of employee autonomy and organizational innovation.

STATEMENT OF THE PROBLEM

The manufacturing firms has long been regarded as pivotal to the nation's economic growth and industrialization efforts. However, the sector faces persistent challenges in sustaining its competitiveness in a globalized economy. Among the most critical of these challenges is the inadequate adoption and integration of innovation in manufacturing processes and product development (Nwagbara, 2020). Innovation is a key driver of productivity, efficiency, and adaptability in manufacturing, enabling firms to meet evolving consumer demands, reduce costs, and maintain a competitive edge. Despite the acknowledged importance of innovation, many manufacturing firms in Nigeria, particularly those in regions like Rivers State, continue to lag behind in implementing innovative practices due to various structural, financial, and managerial constraints (Oyelaran-Oyeyinka, 2014).

Innovative problems in manufacturing firms often stem from absence of investment in research and development (R&D) and limited access to cutting-edge technologies. Many manufacturing firms in Nigeria struggle to allocate sufficient resources to R&D activities, which are essential for fostering innovation and improving product quality (Ogunleye, 2018). This underinvestment is often exacerbated by economic instability, inadequate infrastructure, and a challenging business environment. Without a strong focus on R&D, firms may miss out on opportunities to adopt new technologies and processes that can enhance productivity and efficiency. As a result, many manufacturers continue to rely on outdated practices that hinder their ability to compete both locally and globally (Nwankwo et al., 2016). Furthermore, the lack of skilled personnel trained in modern manufacturing techniques limits the potential for innovation, creating a cycle of stagnation that is difficult to break.

Another significant problem is the resistance to change within organizational cultures, which can stifle innovation and discourage employees from contributing new ideas. In many manufacturing firms, particularly those with long-standing practices, there is a tendency to maintain traditional methods rather than embrace innovative approaches (Santos et al., 2020). This resistance can be rooted in fear of failure, lack of trust in new technologies, or a culture that does not reward experimentation and creative problem-solving. As a result, firms may become complacent, failing to recognize the need for continuous improvement and adaptation in a rapidly changing market (Adeniyi & Abiola, 2019).

This lack of innovation has resulted in limited technological advancement, low productivity, and a failure to capitalize on emerging market opportunities both locally and internationally. Moreover, external factors such as poor infrastructure, policy inconsistency, and limited access to research and development (R&D) funding exacerbate these issues. The absence of a robust culture of innovation within the Nigerian manufacturing sector not only impedes its growth but also hampers the nation's overall industrial progress (Agwu & Onwuegbuzie, 2017). To combat this challenge, it is essential for manufacturing firms to cultivate an organizational culture that encourages innovation and values employee contributions, fostering an environment where new ideas can flourish and lead to tangible improvements in products and processes. Therefore, this study seeks to address the critical issue of innovation within manufacturing firms in Nigeria, with a particular focus on the barriers to innovation and how firms can overcome these obstacles to enhance their performance and competitiveness in the global market.

AIM AND OBJECTIVE OF THE STUDY

This study aims to examine the impact of employee autonomy on innovation in the manufacturing firms, in River State. The specific objectives are to determine the association between:

1. Decision-making autonomy and idea generation of manufacturing firms in River State
2. Decision-making autonomy and implementation of new processes of manufacturing firms in River State.
3. Method autonomy and idea generation of manufacturing firms in River State
4. Method autonomy and implementation of new processes of manufacturing firms in River State.

RESEARCH QUESTIONS

1. What is the relationship between decision-making autonomy and idea generation of manufacturing firms in Rivers State?
2. How does decision-making autonomy relate with implementation of new processes of manufacturing firms in Rivers State?
3. What is the relationship between method autonomy and idea generation of manufacturing firms in Rivers State?
4. How does method autonomy relate with implementation of new processes of manufacturing firms in Rivers State?

RESEARCH HYPOTHESES

Ho_1: There is no significant relationship between decision-making autonomy and idea generation of manufacturing firms in Rivers State.

Ho_2: There is no significant relationship between decision-making autonomy and implementation of new processes of manufacturing firms in Rivers State

Ho_3: There is no significant relationship between method autonomy and idea generation of manufacturing firms in Rivers State.

Ho_4: There is no significant relationship between method autonomy and implementation of new processes of manufacturing firms in Rivers State

Theory: Self-Determination Theory (SDT)

Self-Determination Theory (SDT), proposed by Deci and Ryan (2000), posits that individuals are motivated to grow and change by intrinsic and extrinsic factors. The theory emphasizes the importance of autonomy, competence, and relatedness in fostering motivation and engagement. In the context of employee autonomy, SDT suggests that when employees are given the freedom to make choices regarding their work and methods, they are more likely to experience intrinsic motivation. This increased motivation can lead to higher levels of creativity and innovation, as employees feel empowered to explore new ideas and solutions (Ryan & Deci, 2017).

In manufacturing firms, fostering an environment that supports employee autonomy can enhance innovative behaviour. Research has shown that when employees perceive themselves as autonomous, they tend to exhibit greater commitment to their work, increased job satisfaction, and a willingness to take risks—all of which are essential for driving innovation (O'Donnell & Garavan, 2017). Moreover, autonomy allows employees to leverage their unique skills and insights, leading to more creative problem-solving and the development of innovative products and processes. Thus, understanding the principles of SDT can help manufacturing firms design organizational practices that promote autonomy, ultimately enhancing their innovative capabilities.

EMPLOYEE AUTONOMY

Employee autonomy is a crucial factor that influences workplace dynamics and individual performance. It refers to the degree to which employees have control over their work processes, decisions, and methods of achieving their objectives. Research has shown that higher levels of autonomy can lead to increased job satisfaction and motivation, as employees feel empowered to take ownership of their tasks (Bakker et al., 2019). When employees are allowed to make choices regarding how they execute their work, they often experience a greater sense of responsibility and accountability, which can enhance their engagement and productivity. Gagné and Deci (2015) found that autonomy supports intrinsic motivation, encouraging employees to explore innovative solutions and contribute creatively to organizational goals. Consequently, fostering an environment that prioritizes employee autonomy can lead to better individual and organizational performance, as employees are more likely to pursue initiatives that align with their skills and interests.

Employee autonomy is also linked to enhanced collaboration and teamwork within organizations. When employees are given the freedom to make decisions and choose their methods, they are more likely to engage in open communication and share ideas with their peers, fostering a collaborative environment. Research indicates that autonomous employees are often more willing to seek input from colleagues and engage in knowledge-sharing practices, which can lead to richer, more innovative outcomes (Zhou & George, 2016). Furthermore, this collaborative spirit can help break down silos within organizations, encouraging cross-functional teamwork that leverages diverse

skill sets and perspectives. As a result, organizations that prioritize employee autonomy not only empower individuals but also cultivate a culture of collective innovation, driving better performance and adaptability in a rapidly changing business landscape.

Decision-Making Autonomy

Decision-making autonomy refers to the extent to which employees have the authority to make choices that influence their work and the broader organization. Kuvaas & Dysvik, (2016) posits that when employees are granted decision-making autonomy, they tend to experience increased job satisfaction and motivation, as their contributions are recognized and valued. This autonomy fosters a sense of ownership over their work, encouraging employees to engage more deeply with their tasks and to take initiative in pursuing innovative solutions. A study by Vandenabeele et al. (2019) found that decision-making autonomy positively correlates with organizational commitment, suggesting that employees who feel empowered to make decisions are more likely to remain dedicated to their organization and contribute positively to its goals.

Moreover, decision-making autonomy can significantly enhance the creative potential of teams. When employees are involved in the decision-making process, they bring diverse perspectives and insights that can lead to more innovative outcomes (Baker et al., 2020). Empowering employees to make decisions not only improves their individual performance but also cultivates a collaborative environment where team members feel comfortable sharing their ideas. This collaborative dynamic is crucial for fostering innovation, as it allows for the exploration of different viewpoints and encourages the development of creative solutions (Sundararajan et al., 2019). Consequently, organizations that prioritize decision-making autonomy are more likely to harness the collective creativity of their workforce, leading to improved innovation and competitive advantage.

Method Autonomy

Method autonomy refers to the degree of freedom employees have in determining how they accomplish their work tasks. This autonomy is crucial for fostering creativity and innovation, as it allows employees to experiment with different approaches and find the most effective solutions to challenges (Gagne & Deci, 2015; Parker et al., (2017) suggest that when employees have the flexibility to choose their methods, they are more likely to leverage their skills and knowledge, leading to enhanced problem-solving capabilities and innovative outcomes. Van den Broeck et al. (2016) demonstrated that employees who possess high levels of method autonomy tend to report greater levels of job satisfaction and engagement, which further contribute to their creative output.

Furthermore, method autonomy encourages learning within organizations. When employees are empowered to explore different methods, they can share their discoveries and insights with their peers, fostering a collaborative learning environment (Perry-Smith & Mannucci, 2017). This exchange of ideas can lead to new processes and innovations that benefit the entire organization. A study by Hong et al. (2017) found that teams with high method autonomy experienced increased collaboration and knowledge sharing, which in turn enhanced their overall performance and innovative capabilities. Therefore, promoting method autonomy is essential for organizations looking to cultivate a dynamic and innovative workforce that is capable of adapting to rapidly changing market demands.

INNOVATION

Innovation is a critical component of organizational success, particularly in today's fast-paced and competitive business environment. It encompasses the creation and implementation of new ideas, products, processes, and services that add value to an organization and its customers. The ability to innovate can distinguish successful firms from their competitors, as it allows organizations to adapt to changing market demands and technological advancements (Kahn, 2018). Furthermore, innovation fosters a culture of continuous improvement, encouraging employees to think creatively and contribute to the organization's growth (Santos et al., 2020). Morrison et al., (2022) suggest that companies that prioritize innovation not only enhance their operational efficiency but also improve customer satisfaction and loyalty, ultimately driving profitability.

Moreover, fostering innovation requires a supportive organizational environment that encourages experimentation and risk-taking. Organizations that cultivate a culture of innovation typically empower their employees, providing them with the autonomy to explore new ideas without the fear of failure (Kocoglu et al., 2020). This environment can be achieved through effective leadership that values employee contributions and encourages collaborative teamwork (Rosing et al., 2019). Studies have shown that organizations with strong innovative cultures tend to experience higher employee engagement and retention, as employees feel more valued and motivated to contribute to the company's innovative efforts (Huang & Rice, 2021). Consequently, creating an environment conducive to innovation is essential for organizations aiming to remain competitive and responsive to market changes.

Idea Generation

Idea generation is a fundamental phase in the innovation process, where new concepts and solutions are developed to address specific challenges or seize opportunities. This phase often involves brainstorming sessions, collaborative workshops, and individual creative thinking, allowing employees to contribute their unique perspectives and insights (Paulus & Nijstad, 2019). Leung et al., (2019) suggest that diverse teams tend to produce a greater variety of ideas, as individuals with different backgrounds and experiences bring distinct viewpoints to the table. Moreover, organizations that implement structured idea-generation techniques, such as design thinking or open innovation, often see an increase in the quality and quantity of ideas produced, which can lead to more successful innovation outcomes (Hatch & Eisenhardt, 2020).

Furthermore, encouraging idea generation is vital for enhancing innovative capabilities. Providing employees with the freedom to explore and experiment without the fear of negative repercussions can lead to a more vibrant creative environment (Zhou & George, 2016). Companies like Google and 3M have successfully implemented policies that allow employees to dedicate a portion of their work time to pursue personal projects, resulting in ground-breaking innovations such as Gmail and Post-it Notes (Cohen & Levinthal, 2016). Additionally, implementing feedback mechanisms where employees can share their ideas and receive constructive input can further stimulate creativity and lead to the refinement of concepts into viable innovations (Chesbrough, 2017). Ultimately, organizations that prioritize idea generation are better positioned to adapt to market changes and drive sustained growth.

Implementation of New Processes

Implementation of new processes translate ideas and concepts into practical applications that enhance efficiency and effectiveness. This phase involves carefully planning, executing, and monitoring new workflows, technologies, or systems within an organization (Kotter, 2018). Successful implementation requires clear communication and alignment across all levels of the organization, ensuring that employees understand the benefits and objectives of the changes being introduced (Armenakis & Bedeian, 2016). Cawsey et al., (2016) study has shown that organizations that actively involve employees in the implementation process experience higher levels of buy-in and commitment, leading to more successful outcomes. By fostering a collaborative environment during implementation, organizations can address potential resistance and enhance employee engagement in the change process.

Moreover, effective implementation of new processes also hinges on continuous evaluation and adaptation. Organizations must be willing to assess the effectiveness of the implemented changes and make necessary adjustments based on feedback and performance metrics (Damanpour & Aravind, 2016). A study by Bessant et al. (2019) emphasizes that organizations that embrace a culture of continuous improvement are more adept at refining their processes and achieving long-term innovation success. This iterative approach not only enhances operational performance but also fosters a culture of learning and adaptability within the organization (Pérez-Luño et al., 2020). Therefore, a commitment to ongoing evaluation and flexibility in implementing new processes is essential for organizations seeking to sustain innovation and maintain a competitive edge in their industries.

EMPIRICAL REVIEW

Shkurti, L. & Mustafa, L. (2024) investigates the relationship between employee engagement and innovation performance in influencing the success of manufacturing and service enterprises in Albania and Kosovo. Data were collected through questionnaires distributed to entrepreneurs, managers, and employees, along with direct interviews in some cases, from late 2022 to early 2023. The analysis involved 190 companies, with 100 in Albania and 90 in Kosovo, reflecting their substantial role in the region's economy. Among these, 105 (55%) are manufacturing firms, while 85 (45%) are in the service sector. The findings indicate a strong positive correlation between employee engagement ($r = 0.458^{**}$) and innovation performance ($r = 0.396^{**}$) with business success, both significant at $p < 0.01$. Multivariate regression analysis further confirms the positive impact of employee engagement and innovation performance on business success, supported by ANOVA analysis significance ($p = 0.00$).

Burcharth, et al., (2017) examine how organisational activities that formally provide employees with work autonomy explain the performance of open innovation (OI). The study reports the results of mediation analyses conducted on the basis of survey data from 307 firms. Findings The economic benefits of both inbound and outbound OI are fully captured only if firms provide employees with time, freedom and independence. The results show that employee autonomy fully mediates the relationship between openness and innovation sales, while the adoption of inbound OI is positively associated with the introduction of new products. rewrite differently

Nie (2023) investigates how job autonomy and work meaning impact employees' job-crafting behaviours, while also examining the moderating role of perceived organizational change, based

on a survey conducted with 318 employees in Chinese companies. The findings reveal that both job autonomy and work meaning foster job-crafting behaviours by enhancing employees' harmonious work passion. Furthermore, the indirect effects of job autonomy and work meaning on job-crafting behaviours are significantly stronger for employees who perceive a high level of organizational change compared to those with low perceptions of such change. The study suggests that organizations should focus on job redesign initiatives to enhance employees' job autonomy and work meaning.

Shkurti and Mustafa (2024) examines the relationship between employee engagement and innovation performance in the success of manufacturing and service enterprises in Albania and Kosovo. Data were collected from 190 companies through questionnaires and interviews between late 2022 and early 2023, with 105 manufacturing and 85 service enterprises. Analysis using SPSS showed strong positive correlations between employee engagement ($r = 0.458^{**}$) and innovation performance ($r = 0.396^{**}$) with business success ($p < 0.01$). Multivariate regression confirmed their positive influence, supported by a significant ANOVA analysis ($p = 0.000$).

METHODOLOGY

The accessible population for this survey study comprised 1,780 employees from six selected manufacturing firms in Rivers State. A sample size of 317 was determined based on Krejcie and Morgan's (1970) table. Data were gathered using a structured questionnaire. The independent variable, employee autonomy, was assessed through dimensions of decision-making autonomy and method autonomy. The dependent variable, innovation, was evaluated using measures of idea generation and the implementation of new processes. Responses were rated on a 4-point Likert scale. The instrument's validity was established through face and content validation, while reliability was confirmed using Cronbach's Alpha, with a threshold of 0.7. The Spearman rank order correlation coefficient was employed to analyse the data.

RESULT

A total of 317 copies of questionnaire were administered, but only 302 returned questionnaires constitute the valid questionnaire and used for the analysis at a 95% level of confidence.

Table 1: Decision-Making Autonomy and Innovation

Correlations

			Decision-Making Autonomy	Idea Generation	Implementation of New Processes
Spearman's rho	Decision-Making Autonomy	Correlation Coefficient	1.000	.695**	.672**
		Sig. (2-tailed)	.	.000	.000
		N	302	302	302
	Idea Generation	Correlation Coefficient	.695**	1.000	.612*
		Sig. (2-tailed)	.000	.	.000
		N	302	302	302
	Implementation of new processes	Correlation Coefficient	.672**	.612*	1.000
		Sig. (2-tailed)	.000	.000	.
		N	302	302	302

The analysis in Table 1 shows a significant relationship between decision-making autonomy and idea generation, with a p-value of .000, which is less than .05 ($p < 0.05$) and $R^2 =$. 483. The correlation coefficient of 0.695 indicates a positive relationship between these two variables.

Additionally, the table highlights a significant relationship between Decision-making autonomy and implementation of new processes, also with a p-value of .000 ($p < 0.05$), a correlational value of .672 and R^2=.452, suggesting a positive correlation between decision-making autonomy and implementation of new processes.

Table 2: Method Autonomy and Innovation

Correlations

			Method Autonomy	Idea Generation	Implementation of New Processes
Spearman's rho	Method Autonomy	Correlation Coefficient	1.000	.665**	.645**
		Sig. (2-tailed)	.	.000	.000
		N	302	302	302
	Idea Generation	Correlation Coefficient	.665**	1.000	.612*
		Sig. (2-tailed)	.000	.	.000
		N	302	302	302
	Implementation of New Processes	Correlation Coefficient	.645**	.612*	1.000
		Sig. (2-tailed)	.000	.000	.
		N	302	302	302

The analysis in Table 2 reveals a significant relationship between method autonomy and idea generation, with a p-value of .000, indicating it is less than .05 ($p < 0.05$) R=.665 and R^2=.442. This suggests a strong positive association between these variables. Furthermore, the table indicates a significant relationship between method autonomy and implementation of new processes, with a p-value of .000 ($p < 0.05$), R= 0.645 and R^2=.416, demonstrating a positive correlation between method autonomy and implementation of new processes.

Discussion of Findings

The results of this study provide significant insights into the relationship between employee autonomy (decision-making autonomy and method autonomy) and innovation (idea generation and the implementation of new processes) in selected manufacturing firms in Rivers State.

The first part of the analysis, as presented in Table 1, demonstrates a strong and positive relationship between decision-making autonomy and idea generation. The correlation coefficient ($R = 0.695$) and the p-value ($p = 0.000$) indicate that as employees are granted more autonomy in making decisions, their capacity to generate innovative ideas increases. The coefficient of determination ($R^2 = 0.483$) suggests that decision-making autonomy explains approximately 48.3% of the variation in idea generation. When employees have the freedom to make decisions, they are more likely to explore creative solutions and contribute to innovation. This finding aligns with Nie (2023) that job autonomy relates with employees' job-crafting behaviours.

Additionally, Table 1 highlights a significant positive relationship between decision-making autonomy and the implementation of new processes. The correlation coefficient ($R = 0.672$) and a p-value of 0.000 further confirm that higher decision-making autonomy is associated with an increased ability to implement new processes within the organization. With an R^2 value of 0.452, decision-making autonomy accounts for 45.2% of the variation in the implementation of new processes. This suggests that employees with greater decision-making authority are more likely to successfully translate ideas into actionable and innovative processes, enhancing overall organizational performance. This agrees with Burcharth, et al., (2017 that autonomy relates with implementation of new processes at workplace.

Table 2 provides insights into the relationship between method autonomy and innovation. Similar to decision-making autonomy, method autonomy also shows a strong positive relationship with both idea generation and the implementation of new processes. The correlation coefficient between method autonomy and idea generation is 0.665, with a p-value of 0.000, confirming a significant relationship. The R^2 value of 0.442 indicates that method autonomy explains 44.2% of the variation in idea generation. This finding suggests that when employees have the flexibility to choose how they accomplish their tasks; they are more likely to generate innovative ideas. This conform with Van den Broeck et al. (2016) that employees who possess high levels of method autonomy tend to report greater levels of job satisfaction and engagement

Moreover, method autonomy is significantly related to the implementation of new processes, as reflected by a correlation coefficient of 0.645 and a p-value of 0.000. The R^2 value of 0.416 suggests that method autonomy accounts for 41.6% of the variation in process implementation. This implies that employees who are allowed to determine their work methods are more likely to effectively implement new and innovative processes in the organization. This agrees with Bessant et al. (2019) that organizations that embrace autonomy and a culture of continuous improvement of processes will achieve long-term innovation success. Both decision-making and method autonomy are shown to significantly enhance idea generation and the implementation of new processes, which are essential for maintaining competitiveness in today's dynamic business environment. Encouraging autonomy not only empowers employees but also promotes a culture of innovation, leading to improved organizational outcomes.

CONCLUSION

The study examined the influenceof employee autonomy on innovation in manufacturing firms in Rivers State. The findings demonstrate a significant relationship between autonomy and the innovative capabilities of these firms. The study concludes that employee autonomy significantly impacts innovation in manufacturing firms in Rivers State. Decision-making autonomy is strongly linked to both idea generation and implementation of new **processes**, indicating that when employees have the authority to make decisions, they are more creative and effective in driving innovation. Similarly, method autonomy—the flexibility to choose how tasks are performed—enhances both idea generation and the implementation of new processes. This freedom encourages creativity and experimentation, leading to more innovative outcomes. Overall, empowering employees with both decision-making and method autonomy is essential for fostering innovation in manufacturing firms.

RECOMMENDATIONS

Based on the study findings, the following recommendations are made for enhancing innovation through employee autonomy in manufacturing firms in Rivers State:

1. Manufacturing firms should encourage greater decision-making autonomy by empowering employees to make independent choices in their roles. This can be achieved by reducing micromanagement, allowing for flexible decision-making frameworks, and promoting a culture that values employee input and they should foster a more innovative environment where creative ideas can flourish.

2. Firms should delegate decision-making authority to employees directly involved in operations and provide them with autonomy in decision-making enables quicker and more effective execution of new processes, leading to operational efficiency. They should invest in leadership development programs that encourage managers to support employee-driven initiatives.
3. Manufacturing firms should allow employees the freedom to choose their work methods and offer flexible work practices and remove rigid procedural constraints to encourage creativity and experimentation, leading to more innovative ideas. Firms should also support a trial-and-error approach that enables employees to explore new techniques without fear of failure.
4. Firm's should empower employees to adjust their work methods as needed during the execution phase and encourage adaptability in task performance for more effective integration of innovative processes. Firms should provide resources, tools, and training that promote flexibility, ensuring that employees can modify methods to align with the firm's evolving innovation goals.

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