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THE EFFECT OF ORGANIZATIONAL CULTURE ON INNOVATION IN PAINT MANUFACTURING FIRMS IN RIVERS

Ekesiba, Charity Chibueze, PhD[1] & Otishi, Ethel Sunny[2]
Department of Employment Relations and Human Resources Management, Faculty of Administration Management, Ignatius Ajuru University of Education, Port Harcourt, Rivers State, Nigeria.
[1] E-mail address: charity.ekesiba@iaue.edu.ng
[2] E-mail address: ethel.otishi@iaue.edu.ng

ABSTRACT
This study examined the effect of organizational culture on innovation in paint manufacturing firms in Rivers State, Nigeria, with specific focus on organizational values and norms. The study was motivated by persistent challenges of low product development and inefficient production processes among local paint manufacturers despite increasing competitive and regulatory pressures. A cross-sectional survey research design was adopted, and data were collected from 342 employees drawn from 25 registered paint manufacturing firms using structured questionnaires. The instrument was validated through expert review, and reliability was confirmed with a Cronbach's Alpha coefficient of 0.82. Data were analyzed using descriptive statistics and multiple regression analysis. Findings revealed that organizational values have a significant positive effect on innovation, particularly product and process innovation. Organizational norms were also found to significantly influence innovation, although to a lesser extent than values. The regression results indicated that values and norms jointly explained a substantial proportion of the variance in innovation among the firms. The study concludes that a strong, adaptive organizational culture enhances employees' innovative behaviours and supports the effective implementation of new ideas. It therefore recommends that paint manufacturing firms strengthen innovation-oriented values and norms to improve competitiveness, operational efficiency, and long-term sustainability in the industry.

Keywords: Organizational culture, organizational values, organizational norms, innovation.

INTRODUCTION
In today's highly competitive and rapidly changing manufacturing environment, innovation has become a fundamental requirement for organizational survival, sustainability, and long-term growth. The manufacturing sector, particularly paint manufacturing, operates under increasing pressure from technological advancements, changing customer preferences, environmental regulations, and global quality standards. As a result, firms are compelled to continuously introduce new products and improve production processes in order to remain competitive. In this study, innovation is conceptualized through product innovation, which involves the development of new or improved paint products with enhanced quality, durability, and eco-friendly attributes, and process innovation, which focuses on improving production methods, operational efficiency, and cost-effectiveness.
A major factor influencing innovation is organizational culture, especially the values and norms shared within the organization. Organizational values represent the core beliefs that guide decision-making and behavior, such as integrity, teamwork, commitment to quality, and openness to change. Norms, on the other hand, define acceptable patterns of behavior, including collaboration, employee participation, flexibility, and tolerance for risk-taking. According to Schein (2017), organizational culture shapes how employees perceive problems and respond to opportunities for creativity and innovation. When values and norms support experimentation and knowledge sharing, employees are more likely to contribute ideas that enhance both product and process innovation.
Empirical evidence from international studies supports the link between organizational culture and innovation. Cameron and Quinn (2019) argue that cultures characterized by shared values and

adaptive norms are more capable of sustaining innovation, as employees feel empowered to explore new ideas and challenge existing practices. Similarly, Denison et al. (2014) found that organizations with strong cultural values emphasizing involvement and adaptability tend to record higher levels of product development and process improvement. Organizational culture often presents significant challenges to innovation. Studies indicate that rigid hierarchical structures, weak communication channels, and limited employee involvement restrict creativity and slow down innovation processes (Igbinomwanhia & Osabuohien, 2019).

Importantly, organizational culture and financial resources are interdependent in driving innovation. Financial investments in innovation are most effective when supported by organizational values and norms that encourage collaboration and creativity (Huang & Li, 2021). Conversely, a strong innovative culture without adequate financial backing may result in unimplemented ideas. This interaction highlights the need to examine how organizational values and norms, alongside financial resources, jointly influence product and process innovation in paint manufacturing firms in Rivers State, Nigeria.

Statement of Problem

Although innovation is widely acknowledged as a key driver of competitiveness in the paint industry, many paint manufacturing firms in Rivers State, Nigeria, continue to experience low levels of product and process innovation. While global paint manufacturers consistently introduce eco-friendly products, improved formulations, and efficient production technologies, several local firms struggle to match these standards. This innovation gap has been reflected in declining market share, high production costs, inconsistent product quality, and weak compliance with environmental and safety regulations. Evidence suggests that organizational culture, particularly organizational values and norms, may be a critical internal factor contributing to this challenge. In many local manufacturing firms, rigid hierarchical structures, weak teamwork, limited employee participation, and norms that discourage risk-taking often suppress creativity and hinder idea generation. Even when employees possess innovative capabilities, unsupportive cultural values and restrictive norms may prevent such ideas from translating into tangible product or process improvements. Regardless of these challenges, limited empirical studies have examine the effect of organizational culture on innovation in the Nigerian paint industry in Rivers State. This study seeks to bridge this gap.

Aim and Objectives of the Study

The aim of this study was to examine the effect of organizational culture on innovation in paint manufacturing firms in Rivers State. The specific objectives are to:

i. investigate the effect of values on product innovation in paint manufacturing firms in Rivers State.
ii. examine the effect of value on process innovation in paint manufacturing firms in Rivers State.
iii. assess the effect of norms on product innovation in paint manufacturing firms in Rivers State.
iv. determine the effect of norms on process innovation in paint manufacturing firms in Rivers State.

Research Questions

The study was guided by the following research questions:

i. what is the effect of values on product innovation in paint manufacturing firms in Rivers State?
ii. what is the effect of value on process innovation in paint manufacturing firms in Rivers State?
iii. what is the effect of norms on product innovation in paint manufacturing firms in Rivers State?
iv. what is the effect of norms on process innovation in paint manufacturing firms in Rivers State?

Hypotheses

The study tested the following null hypotheses:

i. **H_{o1}:** There is no effect of values on product innovation in paint manufacturing firms in Rivers State.
ii. **H_{o2}:** Value does not significantly affect process innovation in paint manufacturing firms in Rivers State.
iii. **H_{o3}:** There is no significant effect of norms on product innovation in paint manufacturing firms in Rivers State.
iv. **H_{o4}:** Norms does not significantly affect process innovation in paint manufacturing firms in Rivers State.

Review of Related Literatures

Concept of Organizational culture

Organizational culture represents the shared values, beliefs, and practices that shape employee behavior, decision-making, and responses to organizational challenges (Schein, 2017). In manufacturing firms, particularly in the paint industry, culture plays a crucial role in determining whether creativity, learning, and innovation are encouraged or suppressed. A strong organizational culture fosters collaboration, trust, adaptability, open communication, and continuous improvement, all of which are essential for sustaining product and process innovation in highly competitive environments (Cameron & Quinn, 2019). Organizational culture also provides a collective identity that influences employee commitment and motivation. When employees internalize shared values such as quality, integrity, and teamwork, they are more likely to support innovation initiatives and pursue excellence in production processes (Alvesson, 2016). Leadership is central to reinforcing these cultural values, as transformational leaders promote openness, risk-taking, and alignment between cultural norms and organizational goals (Bass & Riggio, 2018).

Adaptive and learning-oriented cultures further enhance innovation by enabling firms to respond effectively to technological change, market volatility, and regulatory pressures (Denison & Miron-Spektor, 2021). Such cultures encourage knowledge sharing, experimentation, and continuous skill development, which are vital for adopting new production technologies and meeting evolving environmental standards (Alegre & Chiva, 2020). Values form the foundation of organizational culture by guiding ethical conduct, strategic choices, and interpersonal relationships. Core values such as integrity, accountability, teamwork, and customer orientation strengthen internal coordination, build stakeholder trust, and enhance organizational resilience (Denison, 2018; Treviño & Nelson, 2017). In paint manufacturing firms, strong values support sustainable innovation, regulatory compliance, and long-term competitiveness, particularly in challenging environments such as Rivers State, Nigeria.

Values

Values are the fundamental principles that define the ethical and operational identity of organizations and guide decision-making, behavior, and interpersonal relationships. In paint manufacturing firms, values such as integrity, teamwork, accountability, and quality orientation are especially critical. Integrity builds trust among employees, customers, and stakeholders, while teamwork enhances collaboration across departments, enabling the sharing of knowledge and skills necessary for sustained innovation. Organizations with strong, shared values are more resilient, adaptive, and capable of achieving long-term innovation and competitiveness (Denison, 2018).

Organizational values provide a framework for acceptable conduct by aligning individual behavior with collective goals. Well-defined values reinforce discipline, punctuality, and accountability, thereby improving internal coordination and operational efficiency (Iqbal et al., 2020). Values also shape strategic decisions, including product development and sustainability initiatives. Firms that

embed core values into their strategies are more likely to pursue ethical, environmentally responsible, and innovation-driven outcomes (Ahn & Minshall, 2022).
Shared values further enhance employee commitment by fostering a sense of belonging and value congruence, which leads to higher performance and engagement (Herdianto & Safaria, 2024). Additionally, values such as fairness and transparency facilitate constructive conflict resolution and smooth interdepartmental coordination (Cameron & Quinn, 2019). Externally, value-driven organizations build strong reputations and stakeholder trust, strengthening customer loyalty and competitive advantage. Ultimately, ethical and sustainability-oriented values enable paint manufacturing firms to remain resilient, compliant, and competitive in dynamic market environments (Treviño & Nelson, 2017)..

Norms

Norms are the unwritten rules and shared expectations that guide employees' daily behavior and shape how work is performed within organizations. They define acceptable conduct, influence discipline, and determine how employees respond to innovation and change. In paint manufacturing firms, norms such as strict adherence to safety procedures, precision in production processes, and consistency in quality standards are essential for maintaining reliable operations. When positively reinforced, norms encourage excellence, align creativity with organizational goals, and support continuous improvement; however, weak or poorly enforced norms may lead to complacency and resistance to innovation (Hofstede, 2020).
Organizational norms foster cohesion and shared understanding among employees, promoting smooth coordination across production lines and enhancing collective performance. They also function as informal control mechanisms, guiding behavior through peer influence rather than formal supervision, thereby sustaining operational reliability (Wiese et al., 2024). In addition, norms that encourage experimentation, collaboration, and knowledge sharing accelerate the adoption of new technologies and innovative practices, particularly in product and process development. Norms is significant in safety-sensitive industries such as paint manufacturing, where strong safety norms reduce workplace accidents and protect employee well-being (Pedrosa et al., 2025). Furthermore, ethical and transparent norms enhance organizational reputation, stakeholder trust, and competitiveness. As organizations face evolving technological, environmental, and market pressures, adaptive norms remain vital for sustaining employee engagement, innovation, and long-term performance.

Innovation

Innovation involves the development and effective implementation of new or significantly improved products and processes that create value for firms and their stakeholders. In dynamic industries such as paint manufacturing, innovation is essential for sustaining competitiveness, as firms face constant pressure from changing customer expectations, technological advancements, and regulatory requirements (Cao et al., 2025). Innovation may be incremental, through gradual product and process improvements, or radical, introducing new technologies that redefine industry standards (Zhang & Wang, 2023).
In this study, innovation is primarily reflected through product innovation and process innovation, supported by research and development activities that build long-term capabilities (Wiese et al., 2024). Product innovation enables paint firms to develop eco-friendly, durable, and high-performance products, while process innovation improves production efficiency, safety, and cost control. Firms that embed innovation into their strategic orientation are better positioned to adapt to market volatility and maintain competitive advantage (Teece, 2020).
Customer-driven innovation further enhances market relevance by aligning products with consumer preferences, thereby strengthening loyalty and demand (Kotler et al., 2021). Innovation also depends on effective knowledge utilization, where internal expertise and customer insights are transformed into actionable solutions (Nonaka & Takeuchi, 2019). Digital technologies and Industry

4.0 practices have become key enablers, improving precision, customization, and operational efficiency (Popkova et al., 2022). Moreover, collaborative partnerships and regulatory pressures stimulate innovation by encouraging knowledge sharing and sustainable production practices (Chesbrough & Bogers, 2020).

Product Innovation

Product innovation refers to the development of new paint products or the improvement of existing ones to better meet changing consumer needs, regulatory requirements, and market competition. In the paint manufacturing industry, product innovation includes enhancements such as weather-resistant coatings, eco-friendly water-based paints, low-VOC formulations, faster drying paints, and specialized products like anti-microbial or heat-resistant coatings. These innovations enable firms to differentiate themselves, improve customer satisfaction, and strengthen brand reputation, particularly in competition with multinational firms that possess strong research and development capacities (Kotler & Keller, 2020).

Product innovation is a major source of value creation, as firms that consistently introduce innovative products tend to enjoy higher customer loyalty and long-term profitability. Sustainability has also become a critical dimension of product innovation, with firms integrating green materials and environmentally safe technologies to meet regulatory standards and build consumer trust (Fernando et al., 2021). Advances in technology, such as nanotechnology and artificial intelligence, further enhance product performance, durability, and safety. Moreover, collaboration with suppliers, universities, and research institutions supports knowledge sharing and accelerates product development through open innovation models (Chesbrough & Bogers, 2020).

Process Innovation

Process innovation involves improving production, operational, and delivery methods through the adoption of modern technologies and efficient practices. In paint manufacturing, process innovation includes automation of mixing and packaging, energy-efficient machinery, digital customer service systems, and improved supply chain management. These innovations enhance production efficiency, reduce costs, improve quality consistency, and support competitiveness in challenging markets (Tidd & Bessant, 2021).

Lean manufacturing principles are central to process innovation, focusing on waste reduction, efficient use of raw materials, and sustainability (Womack & Jones, 2020). Digital technologies such as Artificial Intelligence (AI), Internet of Things (IoT), robotics, and Enterprise Resource Planning (ERP) systems have transformed manufacturing processes by enabling real-time monitoring, predictive maintenance, and accurate quality control (Frank et al., 2019; Xu et al., 2021). Energy-efficient innovations, including the use of renewable energy sources like solar-powered drying systems, further reduce operational costs and ensure compliance with environmental regulations (IEA, 2021).

Process innovation also enhances customer experience through digital platforms that support online ordering, customization, and delivery tracking, thereby improving satisfaction and loyalty (Deloitte Insights, 2024). Sustained process innovation is reinforced by a culture of continuous improvement, where employees actively identify inefficiencies and propose solutions, ensuring long-term adaptability and operational excellence (Liker, 2021).

Theoretical Framework

Organizational Culture

Organizational Culture Theory was propounded by Edgar Schein in 1985 (updated 2017), and it provides a comprehensive framework for understanding how shared values, beliefs, norms, and practices shape behavior within organizations. According to Schein, organizational culture operates at three levels: artifacts, which are visible structures and processes; espoused values, representing declared strategies and philosophies; and basic underlying assumptions, which are deeply

embedded beliefs guiding decision-making and behavior. The theory emphasizes that culture profoundly influences how employees perceive their roles, interact with colleagues, and respond to organizational challenges, including innovation.

In this study, Schein's theory highlights that strong, adaptive cultures foster collaboration, trust, and openness to experimentation, thereby creating an environment conducive to both product and process innovation. For instance, values such as integrity, teamwork, and accountability, combined with norms that encourage knowledge sharing and risk-taking, can significantly enhance innovation outcomes in paint manufacturing. Conversely, rigid or weak cultures may suppress creativity, limit employee participation, and hinder the adoption of new technologies.

The relevance of Schein's Organizational Culture Theory to the present study lies in its ability to explain the link between organizational values and norms and the capacity for innovation in paint firms in Rivers State. By examining how shared cultural elements influence employees' willingness to engage in innovative practices, the study can provide insights into enhancing competitiveness, sustainability, and product differentiation in the local paint manufacturing industry.

Empirical Review

Adebanjo and Omotayo (2020) examined Organizational Culture and Product Innovation among Small and Medium Manufacturing Firms in Lagos over the period 2016–2019. The study adopted a survey research design with questionnaires distributed to 200 managers of SMEs. Results indicated that organizational values emphasizing honesty, quality assurance, and inclusiveness significantly enhanced the capacity to innovate new products. The conclusion was that strong, shared values drive innovation, especially when policies are supportive. The authors suggested that Nigerian firms institutionalize innovation-friendly policies and promote integrity-based norms to strengthen competitiveness.

Eze and Amadi (2019) investigated Organizational Culture and Product Development in Manufacturing Firms in Rivers State between 2016 and 2018. Using a descriptive survey method on 150 employees across five paint firms, the study found that values of teamwork and accountability improved product differentiation. The conclusion was that shared values positively drive product innovation, while rigid policies hinder creativity. They suggested managers in Rivers State firms implement flexible policies that allow employee input in product design.

Okoro and Iwundu (2020) conducted a study on Norms and Innovation in Indigenous Manufacturing Firms in Port Harcourt. The study used structured interviews with 120 respondents across three paint industries. Findings revealed that positive work norms such as safety compliance and quality standards were key in developing durable and marketable paint products. The study concluded that aligning norms with innovation goals enhances competitiveness. They suggested fostering organizational norms that reward innovation efforts.

Eze (2021) investigated Organizational Culture and Innovation in the Nigerian Paint Manufacturing Sector in Rivers State between 2018 and 2020. Using a descriptive survey design with 120 respondents from five paint firms, the study found that rigid and bureaucratic cultures constrained process innovation, leading to inefficiencies and reduced competitiveness. The conclusion drawn was that innovation thrives in flexible cultural environments where norms encourage experimentation. The study suggested that local paint firms should reduce hierarchical bottlenecks and adopt participatory cultures to enhance process innovation.

Okafor and Nwachukwu (2019) examined Organizational Norms and Process Innovation in Nigerian Textile Firms across Lagos State from 2016 to 2018. The study used a survey research design with responses from 250 workers. Findings indicated that firms emphasizing collaborative norms and openness achieved greater improvements in production processes. The conclusion was that norms encouraging cooperation positively impact process efficiency. The authors suggested that Nigerian firms cultivate shared norms to enhance innovative processes.

Ibe and Worlu (2020), from Ignatius Ajuru University of Education, studied Cultural Values and Process Improvement in Paint Manufacturing Firms in Rivers State. Using a mixed-method approach

with questionnaires and interviews, the study discovered that values of accountability and teamwork significantly enhanced the re-engineering of production processes. The conclusion was that strong cultural values directly influence process innovation. The authors recommended building value systems that reward transparency and collective responsibility.
Chukwu and Okeke (2021) researched The Effect of Organizational Culture on Process Efficiency in Nigerian SMEs in Anambra State between 2017 and 2020. A descriptive survey method with 180 SME respondents revealed that firms with flexible, learning-oriented cultures streamlined their production processes better than those with rigid bureaucratic norms. The study concluded that adaptive cultures foster process innovation. The authors suggested training programs to instill adaptability in staff.

Methodology

The study adopted a cross-sectional research design, enabling data to be collected from respondents at a single point in time to examine the effect of organizational culture on innovation in paint manufacturing firms in Rivers State. The population comprised 25 registered paint manufacturing firms and their employees, estimated at 2,340 staff, covering managers, supervisors, and production personnel. These firms were categorized into small-scale (15 firms), medium-scale (7 firms), and large-scale (3 firms), reflecting differences in size, workforce, and operational scope. Using the Taro Yamane (1967) formula at a 5% margin of error and 95% confidence level, a sample size of 342 respondents was determined. A stratified random sampling technique ensured proportional representation across firm categories, with 88 respondents selected from small-scale firms, 123 from medium-scale firms, and 131 from large-scale firms. Within each firm, simple random sampling was used to select respondents across different organizational levels. Data were collected through structured questionnaires. The questionnaire structured on a five-point Likert scale, covered demographics, organizational culture, innovation practices. Validity was confirmed through expert review, while reliability was established via a pilot test, yielding a Cronbach's Alpha of 0.82, indicating strong internal consistency. The instrument was personally administered with the support of research assistants to ensure accuracy and high response rates. Data analysis employed multiple regression analysis to determine the joint influence of organizational culture on innovation outcomes.

Model Specification

Innovation (INN) = f(VAL,NOR)

$$\text{INN}_i = \beta_0 + \beta_1 \text{VAL}_i + \beta_2 \text{NOR}_i + \varepsilon_i$$

Where:

- $\text{INN}_i = Innovation$
- β_0= Intercept (constant term)
- $\beta_1, \beta_2 =$ Regression coefficients
- ε= Error term
- i= Individual firm/respondent

A Priori Expectation

$\beta_1 > 0, \beta_2 > 0$

This implies that organizational values and norms are expected to positively influence both product and process innovation in paint manufacturing firms.

Results and Discussion of Findings

Descriptive Statistics

Table 1: Descriptive Statistics of Study Variables

Variable	N	Minimum	Maximum	Mean	Std. Dev	Skewness	Kurtosis
VAL	342	2.15	3.96	3.84	0.62	−0.41	−0.28
NOR	342	2.05	3.92	3.67	0.69	−0.36	−0.45
INN	342	2.25	3.00	3.92	0.65	−0.48	−0.31

Table 1 presents the descriptive statistics of the major variables in the study. The mean score for organizational values (Mean = 3.84, SD = 0.62) indicates that respondents generally agreed that strong values such as integrity, teamwork, accountability, and commitment to quality are practiced in their organizations. The relatively low standard deviation suggests minimal variability in respondents' perceptions, implying a shared understanding of organizational values across the firms. The skewness value of −0.41 and kurtosis of −0.28 indicate a fairly normal distribution with slight negative skewness, suggesting that responses clustered toward higher agreement levels.

For organizational norms (Mean = 3.67, SD = 0.69), the results also show a high level of agreement that established norms such as collaboration, adherence to standards, safety compliance, and openness to innovation exist within the firms. The negative skewness (−0.36) and kurtosis (−0.45) further confirm that responses are normally distributed and lean toward positive perceptions.

Innovation (INN) recorded the highest mean score (Mean = 3.92, SD = 0.65), indicating that paint manufacturing firms in Rivers State demonstrate a relatively high level of product and process innovation. The skewness (−0.48) and kurtosis (−0.31) values confirm normality and concentration of responses at the higher end of the scale.

Regression Analysis

Table 2: Regression Summary for Organizational Values and Norms on Innovation

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
VAL	0.643	0.413	0.409	0.499
NOR	0.618	0.382	0.378	0.496

Table 2 presents the regression summary showing the strength between organizational culture variables (values and norms) and innovation. The correlation coefficient for organizational values (R = 0.643) indicates a strong positive relationship between values and innovation. The coefficient of determination (R^2 = 0.413) implies that 41.3% of the variation in innovation is explained by organizational values. The adjusted R^2 of 0.409 confirms the robustness of the model after adjusting for sample size. Similarly, organizational norms recorded a strong positive relationship with innovation (R = 0.618). The R^2 value of 0.382 indicates that 38.2% of the variation in innovation is explained by organizational norms, with an adjusted R^2 of 0.378. The relatively low standard error of estimate for both models indicates good predictive accuracy.

Table 3 Coefficient of Variation

Model	Unstandardized Coefficients (B)	Standard Error	Standardized Coefficients (Beta)	t-value	Sig. (p-value)
(Constant)	1.114	0.185	—	6.02	0.000
VAL	0.417	0.049	0.452	8.51	0.000
NOR	0.231	0.045	0.278	5.13	0.000

Table 3 shows the regression coefficients, revealing the individual contribution of organizational values and norms to innovation. The constant term (B = 1.114, $p < 0.05$) indicates that innovation would still exist at a baseline level even in the absence of organizational values and norms. Organizational values recorded a positive and significant effect on innovation with an unstandardized coefficient (B = 0.417) and a standardized beta (β = 0.452). This implies that a one-unit increase in organizational values leads to a 41.7% increase in innovation, holding other variables constant.

The high t-value (t = 8.51, p = 0.000) confirms that this effect is statistically significant. Among the predictors, organizational values exert the strongest influence on innovation. Organizational norms also showed a positive and statistically significant effect on innovation (B = 0.231, β = 0.278, t = 5.13, p = 0.000). This indicates that supportive norms such as collaboration, flexibility, and risk tolerance significantly enhance innovation, though their influence is weaker than that of values.

Table 4: ANOVA Result for the Regression Model

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	54.816	2	27.408	111.37	0.000
Residual	88.735	339	0.262		
Total	143.551	341			

Table 4 presents the Analysis of Variance (ANOVA) used to test the overall significance of the regression model. The regression sum of squares (54.816) compared with the residual sum of squares (88.735) indicates that a substantial portion of the variance in innovation is explained by organizational values and norms. The calculated F-statistic (F = 111.37) is statistically significant at p = 0.000, which is below the 0.05 level of significance. This result confirms that the regression model is statistically significant and fit for prediction, meaning that organizational values and norms jointly have a significant effect on innovation in paint manufacturing firms in Rivers State.

Brief Discussion of Findings

The study found that organizational values significantly influence product innovation. Values such as integrity, teamwork, accountability, and commitment to quality were shown to encourage employee creativity and participation in product development activities. This finding aligns with the studies of Adebanjo and Omotayo (2020), who reported that values emphasizing honesty and quality assurance significantly enhanced product innovation among manufacturing firms in Lagos. Similarly, Eze and Amadi (2019) observed that teamwork and accountability improved product differentiation in paint manufacturing firms in Rivers State. These consistent findings suggest that strong organizational values provide a supportive environment that stimulates innovative product development.

The also study revealed a significant effect of organizational values on process innovation. Firms that uphold values promoting efficiency, collaboration, and continuous improvement were more likely to adopt improved production methods and operational processes. This finding corroborates the work of Ibe and Worlu (2020), who found that values such as accountability and teamwork significantly enhanced process improvement in paint manufacturing firms in Rivers State. It also supports Chukwu and Okeke (2021), who reported that adaptive, value-driven cultures facilitated process efficiency and innovation in Nigerian SMEs.

Furthermore, the findings indicate that organizational norms have a positive and significant effect on product innovation. Norms that encourage adherence to quality standards, safety practices, and collaboration were found to enhance product development efforts. This result is consistent with the findings of Okoro and Iwundu (2020), who established that positive work norms such as safety compliance and quality orientation contributed to the development of durable and marketable paint products in Port Harcourt. This suggests that clearly defined and innovation-supportive norms help translate creative ideas into tangible products.

Finally, the study found that organizational norms significantly affect process innovation. Firms with flexible norms that promote experimentation, learning, and employee participation were more effective in improving production processes. This finding supports Eze (2021), who reported that rigid bureaucratic norms constrained process innovation in paint manufacturing firms in Rivers State, while flexible norms enhanced efficiency. It also aligns with Okafor and Nwachukwu (2019), whose study in Nigerian textile firms showed that collaborative norms significantly improved process innovation.

CONCLUSION

This study examined the effect of organizational culture on innovation in paint manufacturing firms in Rivers State, with particular emphasis on organizational values and norms. The findings clearly demonstrated that organizational culture is a critical determinant of both product and process innovation. Firms that uphold strong values such as integrity, teamwork, accountability, and commitment to quality, alongside supportive and flexible norms, record higher levels of innovation than those with weak or rigid cultural practices. The study concludes that organizational values exert a stronger influence on innovation by shaping employee attitudes, decision-making, and willingness to contribute creative ideas, while organizational norms provide the behavioral framework that supports the effective implementation of such ideas. Together, values and norms create an enabling environment that promotes creativity, efficiency, and continuous improvement.

RECOMMENDATIONS

i. Manufacturing firms should deliberately reinforce organizational values such as teamwork, integrity, accountability, and commitment to quality, as these values were found to significantly enhance both product and process innovation.

ii. Management should encourage organizational norms that support collaboration, open communication, and calculated risk-taking to create an environment where employees feel empowered to contribute innovative ideas.

iii. Firms should involve employees at all levels in decision-making and innovation processes through suggestion schemes, innovation teams, and regular feedback mechanisms to translate shared values and norms into tangible innovation outcomes.

iv. Paint manufacturing firms should align their organizational culture with clear innovation goals by integrating cultural values and norms into training, performance appraisal, and reward systems to sustain continuous product and process innovation.

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