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EFFECT OF ADHOCRACY CULTURE AND MANAGEMENT INFLUENCE ON LOGISTICS EFFECTIVENESS IN A CONSUMER GOODS FIRMS IN OSHODI-ISOLO LOCAL GOVERNMENT AREA, LAGOS NIGERIA

ABSTRACT

This study investigates the effect of adhocracy culture and top management influence on logistics performance among consumer goods firms in Oshodi-Isolo Local Government Area, Lagos, Nigeria. The study used a quantitative methodology, with a Pearson Correlation Matrix to examine the connections between adhocracy culture and logistical effectiveness metrics, and a hierarchical

multiple regression analysis to investigate the combined impacts of the adhocracy culture and top management influence on on-time delivery performance. The results show positive relationships between adhocracy cultural characteristics and logistics effectiveness variables, such as distribution frequency, operational costs, on-time delivery, and customer satisfaction. These relationships are noted explicitly as essential elements influencing employees' commitment, innovative values, organizational adaptation, flexibility, leadership impact, and workability. The study also emphasizes the significance of socioeconomic traits in affecting on-time delivery performance, including gender, age, educational level, and years of experience. The model's predictive ability for on-time delivery is greatly improved by including these variables and the features relevant to the adhocracy culture. The study highlights the importance of fostering a healthy adhocracy culture inside firms to enhance performance outcomes across several areas, including logistics efficiency and delivery punctuality. The results highlight the significance of considering socioeconomic factors in addition to the adhocracy ethos, offering helpful information for companies looking to improve delivery performance and streamline logistical operations.

KEYWORDS: adhocracy culture, distribution frequency, operational costs, on-time delivery, customer satisfaction.

JEL: L91, M11, M14

INTRODUCTION

The competitiveness of organizations is rising (Mason, 2018; Chowdhury & Quaddus, 2017). Due to this competitive nature, organizations want to expand globally to advance their managerial expertise, capital investment, and technical improvement (Kamalahmadi et al.,

2016). Innovation is a trait seen as a strength in the consumer goods industry. The primary explanation is that creative businesses are more flexible and faster to react; they go above and beyond to develop new possibilities and capitalize on existing ones. These innovative company concepts assure superior logistics; companies require effective logistics to guarantee timely product availability and satisfy clients.

According to Oginni and Adesanya (2013), the business environment in Nigeria could have been better, resulting in a slow rate of development, a rising unemployment rate, inadequate industrial production, and low demand for services and tangible goods. Similarly, Adim et al. (2018) contend that an organization depends on its capacity for growth and adaptation in the face of unfavourable changes. Due to adverse environmental conditions, several firms have migrated, staggered, collapsed, or packed up their shops in Nigeria. Competition promotes innovation, raises the bar for quality to an international standard, and establishes reasonable pricing levels (Adesina, 2003). In the face of change, many affordable concepts about how goods and services should be supplied, made, and provided have abruptly gone out of date. Like many companies that struggle to adapt to client demands, new technology, and innovation, they either fold up or are acquired by more competitive rivals. The most reliable and long-lasting path to competitiveness in this constantly changing business environment may lie in a firm's proximity to and ability to acquire, combine, and use resources in ways that improve its marketing environment, rather than just the simple possession of personal resources (Morgan et al., 2009). According to Ateke and Didia (2017), this position foretells that dynamic marketing capabilities will drive continuous organizational learning and knowledge accumulation through ongoing intelligence collection, facilitating the creation of superior customer value.

The consumer goods sector has developed various theories and solutions to enhance logistics effectiveness. Miska et al. (2018) emphasize that fostering a culture focused on durability within the company and throughout the supply chain is the first step in improving logistics performance. However, the potential contribution of contextual elements such as organizational culture to increased logistical performance is often overlooked.

Adhocracy is an organizational culture that has garnered attention due to its potential influence on business outcomes. Adhocracy is a management philosophy that emphasizes decentralisation, innovation, and adaptability. It creates an environment where employees are encouraged to take the initiative and seek competitive advantages (Deshpande & Farley, 2019). Adhocracy culture strongly impacts product performance in dynamic environments, with leaders and advocates of this culture exhibiting creativity and a willingness to take risks (Cameron & Quinn, 2016). Adhocracy culture is driven by the need for flexibility, creativity, and adaptability in the face of uncertainty, particularly in the information age (Cameron & Quinn, 2016).

Adaptability refers to how organizations respond to changes in their environment, with an adhocracy culture assuming that firms process information and employ adaptive skills to navigate new conditions. Organizations are seen as socio-technical systems consisting of social components (people) and technical components (technologies and machines) (Skyttner, 2017).

In the organizational context, flexibility involves adapting composition, size, responsiveness, human resource inputs, and costs to achieve organizational goals and objectives. It encompasses changes in how and when work is done, requiring organizations to address dynamic shifts in the business environment (Acar, 2019; Ghoneim, 2019).

A customer is a person who makes use of paid products by purchasing or renting goods or services. This understanding is directly connected to the issue of customer satisfaction in business transactions. The importance of customer satisfaction lies in its relationship to

customer loyalty, the repurchase intention of customers, and the overall performance of organizations (Dikmen, 2017). Customer satisfaction is the ultimate criterion for assessing an organization's success because the customers pay for the goods and services such organizations offer. This is true of a very competitive business like the hospitality industry. This means that when customers are satisfied with the quality of services received in a particular hospitality industry, their loyalty (continuous patronage) will be retained, and the sector's performance will be enhanced.

In Nigeria, many businesses have packed up, staggered, collapsed, and relocated as a result of unfavourable conditions of the environment (Ogunro, 2014). Kalay and Lynn (2014) opined that innovation is essential in a highly competitive environment for a firm to obtain a dominant position and gain higher profits. Therefore, understanding innovation culture is critical to meeting lead time and meeting consumers' satisfaction. Improving the quality of logistics services is of utmost importance as it enhances the likelihood of strategic collaborations and overall corporate success. Each organization implements logistics management strategies that align with its organizational culture to meet customer demands.

The purpose of exploring the relationship between adhocracy culture and logistics effectiveness in consumer goods firms in Nigeria is to gain a deeper understanding of the benefits and challenges associated with this culture in the context of the industry.

1. STATEMENT OF THE PROBLEM

Logistics effectiveness in economic growth and development is becoming increasingly important as it enables the timely flow of goods, services, and values. A well-functioning logistics system facilitates growth and development, especially in emerging economies. The performance of distribution logistics significantly impacts an organization as it connects the organization to customers, influencing customer satisfaction and loyalty. However, many organizations struggle to meet customer expectations in this area. Organizational culture plays a significant role in shaping employees' activities (Maxwell & Chukwudi, 2018). The relationship between logistics effectiveness (cost, lead time, distribution frequency, and customer satisfaction) and methods of implementing organizational culture still needs to be clarified (Ojo, 2018).

In summary, while some studies have explored the relationship between adhocracy culture and logistics efficiency in developed countries, there is limited research in the Nigerian context. The Nigerian manufacturing industry faces challenges regarding logistics effectiveness in satisfying customer requirements, and the role of adhocracy culture in this context has yet to be thoroughly studied.

2. LITERATURE REVIEW AND CONCEPTUAL FRAMEWORK.

Unified Theory of Logistics

Holstrom and Tirole identified the firm's first theory in 1989, and as more views of the firm evolved, the need for a unified theory of logistics became necessary. Mentzer et al. (2001) developed this theory, and one of the explanations of the unified theory of logistics is that there should be a goal regarding competitive advantage.

Every business wants to be successful and efficient; thus, in terms of logistics, efficiency (cost leadership) and effectiveness (customer services) are the two that will provide businesses with a competitive edge. The components that make up the capabilities of logistics in terms of competitive advantage are information management capabilities (information sharing via

information technology and connectivity), supply chain management interface capabilities (low-cost supply and distribution), and interface capabilities (customer services and logistics quality) (Wu et al., 2017).

Transportation and Customer Satisfaction

According to Mentzer et al. (2001), logistics capabilities play a crucial role in interactions that cross functional boundaries between sections of internal operations and other supply chain partners of the company. When a company's marketing and logistics departments work together, they may offer distinctive and varied goods and services to meet client needs (Wu et al., 2017). Mentzer et al. 2001 also noted in the same study that when logistics are included in production, costs and expenses are reduced, and this reduction is coupled with high-quality customer service to produce a high level of customer satisfaction (Wu et al., 2017). The second aspect is the coordination of logistics with the company's suppliers, distributors, and other intermediaries in the supply chain. This coordination produces customer value and also results in shared advantages. The internal component of supply chain management, then, is logistics. According to a 2005 study by Samli et al. that produced "cognitive evaluation of services experience, the logistics of the retailers, which includes internal and external logistics, play a crucial role in the satisfaction of the customers, as it is the only factor acting as an intermediary between the organization and the customers. According to a study by Mentzer et al. in 2001, timely availability, product availability, and delivery conditions contribute significantly to customer satisfaction and value creation (Wu et al., 2017). These factors also play a role in the criteria used to evaluate customers. According to the same study by Mentzer et al. from 2001, logistics adds value for consumers in terms of convenience and time savings through seamless contact with retail services (Wu et al., 2017).

Conceptual Framework

Researcher's Concept (2023)

The conceptual framework illustrated above describes a model of the relationship between adhocracy culture, top management influence, logistics effectiveness, and socioeconomic characteristics. The framework suggests that adhocracy culture, which is a type of organizational culture that is characterized by flexibility, innovation, and risk-taking, can lead to improved logistics effectiveness. This is because adhocracy cultures promote a climate of creativity and experimentation, which can lead to developing new and innovative logistics solutions. Additionally, adhocracy cultures are often characterized by a strong focus on customer service, which can lead to improved customer satisfaction and loyalty.

The framework also suggests that socioeconomic characteristics can influence the relationship between adhocracy culture and logistics effectiveness, for example, in countries with high levels of economic development and well-committed, motivated, and well-trained employees. An adhocracy culture may lead to improved logistics effectiveness. This is because these countries have the resources and infrastructure that support innovation and risk-taking.

Several recent studies support the framework. For example, a study (Chen & Paulraj, 2018) found that adhocracy culture was positively associated with logistics effectiveness in a sample of manufacturing firms. Additionally, a study (Zhang & Swink, 2017) found that socioeconomic characteristics, such as economic development and education level, were positively associated with logistics effectiveness.

The framework has several implications for managers. First, managers should consider the role of adhocracy culture in their organizations. Creating an adhocracy culture that promotes creativity, innovation, and risk-taking may benefit an organization's logistics effectiveness. Second, managers should consider the socioeconomic characteristics of their environment. An

organization in a country with high economic development and a well-educated workforce may be more likely to benefit from an adhocracy culture.

Methodology

Measurement development

This cross-sectional survey used a questionnaire to collect primary data. The Competing Values Framework of Cameron and Quinn (2006) was used to determine the adhocracy culture of the focal organizations. We measured three aspects of logistics effectiveness from the critical performance indicators adopted by Paddeu (2016): quality, logistics costs, productivity, timeliness, and capacity. The questions regarding logistics effectiveness between the focal organization are based on the questionnaire developed by Cai et al. (2009). All of the performance scales were measured with a 5-point Likert scale, including Strongly Agreed (SA), Agreed (A), Disagreed (D), Strongly Disagreed (SD), and Undecided (UD). An initial draft of the questionnaire was pre-tested through a review process by five scholars in the field to ensure content validity, simplicity, clarity, and understandability of the measurement. Subsequently, the improved draft was sent to practitioners from five large, discrete process manufacturers to clarify the comprehensiveness and clarity of the questionnaire. Their feedback was then used for further improvement.

Sample and data collection

The data were collected from prominent manufacturers in Oshodi/Isolo Local Government of Lagos state, Nigeria, which were selected based on their existence in the Nigerian Stock Exchange (NSE). The chosen companies were first telephoned to confirm their availability and time for a likely visit. A preliminary survey reveals that the firms have a total staff strength working in the Logistics, Transport, Procurement, and supply chain distributors department, consisting of 305 respondents. A representative of each organization at the top managerial level was also interviewed.

The study adopted the total enumeration method for sample size determination. This was considered suitable by the researcher because the size of the sampling frame from the list of staff in various departments (logistics, warehouse, transport, sales, and procurement) of the selected consumer goods firms was not large enough for sample selection. Previous studies in supply chain and distribution channels have also used the total enumeration method to justify the relevance of research (Oko, 2013). Given this method, the sample size for the study was 305.

Table 1 Sample Size for the Study

Companies	Total number of questionnaires distributed to employees	The total number of Questionnaires retrieved
PZ Cussons	143	141
Nestle	162	153
Total	305	294

Source: Researcher's Survey (2023)

Validity of Research Instrument

10% of the 294-person sample size was used for the pilot research. The transport, warehousing, supply chain, procurement, and sales departments of consumer products companies in Osun State, Nigeria (Abebi Foods Limited), who were not the target demographic for the primary research, were given thirty (30) questionnaires. To analyse the survey instrument's idea, instruction clarity, and readability, and to remove any areas of ambiguity, a pre-test of the

survey instrument with a smaller group was made possible (Terpend & Krause, 2015). Before beginning fieldwork, this helped the researcher identify any potential issues and revise the proposed questionnaire (Belaya & Hanf, 2014). The degree of validity and reliability of the study instrument was also established through this method.

Using exploratory factor analysis, validation procedures on the questionnaire were carried out to ensure the construct validity of the research instrument. Exploratory factor analysis (EFA) was used to demonstrate the construct's validity statistically. The exploratory component analysis is a construct validity method used to evaluate the calibre of a questionnaire, according to Duodu and Amankwah (2011). In exploratory factor analysis, the Kaiser-Meyer-Olkin Measure of Sampling Adequacy, Extraction of Commonalities, and Bartlett's Test of Sphericity are the primary methods used to assess an instrument's validity. A statistic that shows the percentage of variance in the variables that potential contributing factors can generate is known as the Kaiser-Meyer-Olkin (KMO) Measure of Sampling Adequacy.

According to Kaiser (1974), KMO values larger than 0.5 should be accepted. The factor analysis results are generally not helpful if the value is less than 0.50. The hypothesis that the correlation matrix is an identity matrix, which would suggest that the variables are unrelated and, therefore, inappropriate for structure discovery, is tested by Bartlett's test of sphericity. Small values (less than 0.05) of the significance threshold suggest that the data may benefit from factor analysis. Factor analysis has been utilized in several kinds of research to assess the validity of questionnaires (Kim et al., 2011; Ogunrin & Inegbenebor, 2015).

Table 2 Result of Factor Analysis Test

Variables	Number of Items	KMO	Bartlett's Test	Sig.
Innovation	7	0.757	1369.796	0.000
Adaptability	7	0.533	475.727	0.000
Flexibility	7	0.802	1247.49	0.000
Cost	7	0.548	14.46	0.050
Lead Time	5	0.624	315.19	0.000
Customer Satisfaction	5	0.716	42.705	0.000
Distribution Frequency	5	0.689	865.67	0.000

Source: Researcher's Computation (2023)

The Keiser-Meyer-Olkin (KMO) value for every variable surpasses the required threshold of 0.5, according to the factor analysis results shown in the table above (Kaiser, 1974). Bartlett's Test of Sphericity was statistically significant for all variables at 0.000. The instrument on the variables of the investigation was therefore valid. This demonstrated the tool's suitability for measuring the survey constructs.

Reliability of Research Instrument

The data gathered from the questionnaires sent for the pilot research was used to assess the reliability of the survey instrument. It was essential to determine the questionnaire's internal consistency in repeatedly assessing what it was intended to evaluate to determine the research instrument's dependability (Newstron, 2011).

Cronbach's alpha was used in this study to check each variable's internal consistency and establish dependability. According to Bhatnagar et al. (2014), a reliability coefficient of 0.70 or above is appropriate. The importance of Cronbach's alpha in research has already been shown by several studies using it to assess the reliability of questionnaires (Kalubanga et al., 2012; Mehta et al., 2000; Veljkovic et al., 2015; Vinhas & Gibbs, 2012).

Table 3. Cronbach's Alpha calculations

Variables	Number of Items	Cronbach's Alpha
Innovation	5	0.950
Adaptability	5	0.927
Flexibility	5	0.925
Cost	5	0.931
Lead Time	5	0.932
Customer Satisfaction	5	0.926
Distribution Frequency	5	0.938

Source: Own

Ho1: No significant relationship exists between adhocracy culture, leadership influence, and logistics effectiveness in some selected consumer goods firms in Lagos.

This hypothesis is based on several options. Firstly, adhocracy culture and leadership influence are independent (Yuki, 2006). Secondly, the influence of adhocracy culture and leadership is independent of logistics effectiveness. Logistics effectiveness is not affected by adhocracy culture or leadership influence (Yuki, 2006).

These research findings suggest that the hypothesis that there is no significant relationship between adhocracy culture, leadership influence, and logistics effectiveness is supported by the evidence. However, it is essential to note that these studies were conducted in different settings and with diverse populations. Therefore, the results of these studies may not be generalisable to all organisations.

In addition, a growing body of research suggests that adhocracy culture and leadership influence can be complementary. For example, a study by Jenkins (2015) found that an adhocracy culture can help to create a more supportive environment for leadership influence.

Chand and Gupta (2022) found that an adhocracy culture positively impacts workability, mediated by leadership influence. The study of Gupta and Chand (2021) found that the relationship between adhocracy culture and workability is moderated by leadership influence. When top management is supportive and empowering, an adhocracy culture positively impacts workability. However, when top management is controlling and directing, an adhocracy culture has a negative impact on workability. Rai and Gupta's (2020) study found that adhocracy culture positively impacts workability at both the individual and organizational levels. At the personal level, adhocracy culture is associated with increased job satisfaction, motivation, and creativity, contributing to improved workability. At the organizational level, adhocracy culture is associated with a more flexible and adaptable workforce, which helps organizations respond better to change and uncertainty.

These studies prove that adhocracy culture, top management influence, and workability are not independent. Instead, they are all interconnected and can significantly impact each other.

Overall, the research on adhocracy culture and leadership influence is mixed. Some studies suggest that these two factors are independent, while others suggest they can be complementary. More research is needed to understand the relationship between adhocracy culture and top management influence.

H02: Adhocracy culture and top management influence (employees' commitment, values, and motivational strategies) and working ability will not jointly influence the firm's on-time delivery.

The hypothesis was formulated by scholars such as Alagaraja and Aryee (2014), whose study found that adhocracy culture positively impacts employee work outcomes, such as job satisfaction, commitment, and work performance. This effect is mediated by psychological

empowerment, which is how employees feel capable of controlling their work environment and making a difference in their organization.

Chand and Gupta's (2020) results also suggested that adhocracy culture positively impacts workability at both the individual and organizational levels. At the personal level, adhocracy culture is associated with increased job satisfaction, motivation, and creativity, contributing to improved workability. At the organizational level, an adhocracy culture is associated with a more flexible and adaptable workforce, which helps organizations respond better to change and uncertainty.

In addition, it is essential to note that the relationship between these variables is complex and may not be linear. For example, adhocracy culture may positively impact on-time delivery only up to a certain point. After that point, adhocracy culture may have a negative impact on on-time delivery.

Overall, the evidence suggests that adhocracy culture, leadership influence, and working ability can all positively impact on-time delivery. However, the relationship between these variables is complex and may not be linear. More research is needed to fully understand the relationship between these variables and on-time delivery.

Results

Demographic Data of Respondents

This section delves into the respondents' background information regarding gender, age, highest academic qualification, marital status, working experience, and position in the organization. Descriptive statistics were used to provide data on the distribution of research variables. Table 4 displays a summary of the demographic profile of the respondents.

Table 4. Summary of the demographic profile of the respondents

Characteristics	Categories	Frequency	Percentage (%)
Gender	Male	226	76.9%
	Female	68	23.1%
Age	16-25yrs	23	7.8%
	26-45 yrs	212	72.1%
	46-55 yrs	59	20.1%
Highest Academic Qualification	SSCE	15	5.1%
	B.Sc/BA/HND	117	39.8%
	PGD/MBA/MSc/MA	158	53.74%
	PhD	4	1.4%
Career Sector	Logistics/ Supply chain	190	64.6%
	Procurement	32	10.9%
	Transport	44	15.1%
	Others	28	9.5%
Working Experience	≤ 5 years	93	31.6%
	5 – 10 years	107	36.4%
	11 -15 years	46	15.6%
	16-20 years	36	12.2%
	≥ 20 years	12	4.1%
Position	Director	12	4.1%
	Manager	135	45.9%
	Officers	127	43.2%
	Others	18	6.1%

Source: Field Survey (2023)

Results presented in Table 4 show that most % of the respondents, represented by 76.9%, were males, while 23.1% were females. This result enabled the researcher to obtain information from both genders, hence more appropriate and reliable information. The findings show that the

majority of the respondents who participated in this study, 53.7%, were aged between 26-45 years, followed by 20.1% aged between 46-55 years, while 7.8% were aged 61-65 years. This indicates that respondents were well distributed in terms of their age. In addition, the result of Academic Qualification revealed that most respondents (53.74%) were PGD/MBA/MSc/MA holders, while 39.8% were B. Sc/BA/HND, and 15% were holders of SSCE, while 1.4% were PhD holders. The career sector showed that most of the respondents (64.6%) were in the logistics/supply chain sector, 15.1% in the transport sector, 10.9% in the procurement sector, and 9.5% were categorized as in the other segment.

The findings further revealed that the majority of the respondents, 36.4%, have worked at their organizations for a period between 5-10 years, while 31.6% have worked between periods lesser than or equal to 5 years, 15.6% have worked for periods 11-15 years, 12.2% have worked between 16-20 years, and 4.1% have worked for 20 years and above. The study showed that 4.1% of the respondents worked as Directors of a particular department, 45.9% as Managers, 43.2% were Officers in various departments, and 6.1% occupied other positions not listed in the questionnaire. The result showed that all the respondents were qualified to respond to this survey.

Hypothesis testing

Hypothesis one

H01: No significant relationship exists between adhocracy culture, leadership influence, and logistics effectiveness in some selected consumer goods firms in Lagos.

Table 5. Pearson's Correlation results H01

Variables	1	2	3	4	5	6	7	8	9	10	11
1. Employees' Commitment Values	1										
2. Innovation Values	.37**	1									
3. Organization Adaptability	.38**	.83**	1								
4. Organizational Flexibility	.46**	.66**	.69**	1							
5. Motivational Strategies	.30**	.55**	.68**	.30**	1						
6. Leadership Influence	.86**	.50**	.55**	.36**	.51**	1					
7. Working Ability	.54**	.48**	.67**	.64**	.50**	.46**	1				
8. Firm's Frequency of Distribution	.56**	.44**	.48**	.25**	.30**	.72**	.44**	1			
9. Operating Cost	.50**	.41**	.38**	.60**	.11	.45**	.48**	.35**	1		
10. Firm's On-time Delivery	.58**	.70**	.71**	.41**	.60**	.71**	.48**	.68**	.28**	1	
11. Customers Satisfaction	.42**	.81**	.86**	.58**	.60**	.65**	.60**	.64**	.47**	.81*	1
Mean	26.02	30.07	21.22	21.28	29.88	29.77	22.17	6.14	4.47	5.79	16.15
SD	3.04	3.69	2.36	3.36	3.21	3.38	2.28	1.08	.65	.79	2.05

Researcher's Result (2023)

In the context of leadership impact, innovation, adaptability, flexibility, distribution frequency, on-time delivery, operational cost, and customer satisfaction, this table illustrates a correlation matrix that demonstrates the correlations between numerous factors. The means and standard deviations of the variables are shown in the table, along with the correlation coefficients between each pair of variables.

Using the Pearson Correlation Matrix, which shows the relationships among the study variables and in what direction they are related. It was indicated that all the aspects of adhocracy culture observed in this study had a significant positive relationship with the firm's frequency of distribution of goods. This means that the more adhocracy culture tilts towards favourability, the higher and better the firm's frequency with the distribution of goods. More specifically, the adhocracy culture is employees' commitment [$r(292) = .56, p < .01$], innovation values [$r(292) = .44, p < .01$], organization adaptability [$r(292) = .48, p < .01$], organizational flexibility [$r(292) = .25, p < .01$], motivational strategies in the organization [$r(292) = .30, p < .01$], leadership influence [$r(292) = .72, p < .01$], and working ability [$r(292) = .44, p < .01$].

To Test the relationship between adhocracy culture and operational cost, the researcher indicated that employees' commitment [$r(292) = .50, p < .01$], innovation values [$r(292) = .41, p < .01$], organization adaptability [$r(292) = .38, p < .01$], organizational flexibility [$r(292) = .60, p < .01$], leadership influence [$r(292) = .45, p < .01$], and working ability [$r(292) = .48, p < .01$] all had a positive relationship with operational cost. However, motivational strategies were not significantly related to operating costs [$r(292) = .11, p > .05$].

The result also indicated that the firm's on-time delivery had a significant positive relationship with all aspects of the adhocracy culture observed in the study. This implied that as employees' commitment [$r(292) = .58, p < .01$], innovation values [$r(292) = .70, p < .01$], organization adaptability [$r(292) = .71, p < .01$], organizational flexibility [$r(292) = .41, p < .01$], motivational strategies in the organization [$r(292) = .60, p < .01$], leadership influence [$r(292) = .71, p < .01$], and working ability [$r(292) = .48, p < .01$] increases, there also tends to be an increase in firm's on-time delivery.

Lastly, customer satisfaction had a significant positive relationship with all aspects of adhocracy culture. This was such that as employees' commitment [$r(292) = .42, p < .01$], innovation values [$r(292) = .81, p < .01$], organization adaptability [$r(292) = .86, p < .01$], organizational flexibility [$r(292) = .58, p < .01$], motivational strategies in the organization [$r(292) = .60, p < .01$], leadership influence [$r(292) = .65, p < .01$], and working ability [$r(292) = .60, p < .01$] increases, the satisfaction level of customers also tend to increase. Based on the result, hypothesis 1 (no significant relationship between adhocracy culture and distribution logistics performance) was not supported.

3. DISCUSSION

This implies that organizations embracing an adhocracy culture tend to perform better regarding logistics effectiveness. This is because adhocracy culture promotes flexibility. According to Noe et al. (2017), an adhocracy culture promotes organizational learning, improving the acquisition of knowledge, skills, competencies, and other capabilities that enable organizational innovativeness. Several recent studies support the assertion that leaders can increase their influence by increasing employee commitment. For example, a study by (wang & Howell, 2013) found that employees who were more committed to their work and the company were likelier to see their leaders as credible and trustworthy. This made them more receptive to their leaders' influence.

Companies operate in a highly competitive and dynamic global environment that calls for innovation and better products, processes, and procedures as a consumer-based approach to achieving competitive advantage (Wei et al., 2014).

Jigjiddorj et al. (2020) found a strong positive correlation between each trait of adhocracy and the overall employees' commitment. For instance, in Nongo and Ikyanyon (2012) and Rastegar and Aghayan (2012), there was a significant correlation between employees' commitment and

adaptability but not with consistency and mission, implying that the latter two types of culture could not induce employees' level of commitment.

Several studies have investigated the relationship between Adhocracy Culture and logistics effectiveness. For instance, Zhang and Zhu (2017) examined four kinds of cultures in 9 states of China. The study sampled 25 business enterprises to determine the link between clan culture, adhocracy culture, market culture, and hierarchy culture and firms' distribution productivity. The empirical findings evidenced that adhocracy culture significantly positively affected the firms in terms of performance and turnover. A study by Omukaga (2016) also examined the impact of adhocracy culture on the distribution performance of public water firms in Kenya. Correlation coefficient results showed an affirmative effect on outcomes. Regression analysis also showed that adhocratic culture improved productivity by 0.189 units. The study concluded a significant positive relationship between adhocratic culture and the effectiveness of an organization. Suleiman et al. (2017) found a positive correlation between Adhocracy Culture and Distribution Logistics Performance in Nigerian manufacturing firms. The study used the Pearson Correlation Matrix to analyze the data and found that the correlation coefficient between Adhocracy Culture and logistics effectiveness was 0.658, which indicates a strong positive correlation.

Similarly, a study by Cheng and Hsu (2014) also found a positive relationship between Adhocracy Culture and Supply Chain Performance. The study used the Pearson Correlation Matrix to analyze the data and found that the correlation coefficient between Adhocracy Culture and Supply Chain Performance was 0.492, which indicates a moderate positive correlation.

This implies that organisations embracing an adhocracy culture tend to perform better in terms of logistics effectiveness. This is because adhocracy culture promotes flexibility. According to Noe et al. (2017), an adhocracy culture promotes organisational learning, improving the acquisition of knowledge, skills, competencies, and other capabilities that enable organizational innovativeness.

In conclusion, organizations adopting an adhocracy culture will likely have better logistics effectiveness, improved customer satisfaction, and increased profitability.

H02: Adhocracy culture and leadership influence (employees' commitment values, motivational strategies, and working ability) will not jointly influence the firm's on-time delivery.

Table 6 Pearson`s Correlation results Ho2

Variables	B	T	P	R ²	Adjusted R ²	ΔR ²	Df	F	p	ΔF
Step 1				.15	.14	-	4, 289	12.44	< .01	-
Gender	.15	2.83	< .01							
Age	- .34	- 5.05	< .01							
Educational Qualification	- .20	- 3.56	< .01							
Years of Experience	.25 3.65	< .01								
Step2				.75	.74	.60	11, 282	75.52	< .01	95.33**
Gender	.02	.74	> .05							
Age	- .23	- 4.79	< .01							
Educational Qualification	- .11	- 2.53	< .05							
Years of Experience	.06 1.18	> .05								
Employees' Commitment Values	.48 4.05	< .01								
Innovation Values	.42 6.30	< .01								
Organisation Adaptability	.37 3.54	< .01								
Organizational Flexibility	- .28	- 4.44	< .01							
Motivational Strategies in Organisation	.14 2.87	< .01								
Leadership Influence	- .11	- .911	> .05							
Working Ability	- .09	- 1.28	> .05							

Researcher's Result (2023)

The firm's on-time delivery is the dependent variable in a hierarchical regression analysis, and numerous independent factors are looked at for their potential impact on this outcome. The results are shown in the table below. The examination consists of two phases, the second phase introducing new variables.

The first phase involves examining the characteristics of gender, age, educational background, and years of experience. According to the findings, these factors account for a substantial variation in on-time delivery ($R^2 = 0.14$, adjusted $R^2 = 0.14$).

Gender ($= 0.15$, $p .01$), age ($= -0.34$, $p .01$), educational background ($= -0.20$, $p .01$), and years of experience ($= 0.25$, $p .01$) all exhibit significant associations with on-time delivery among the individual factors. These findings imply that these elements impact the company's capacity to complete projects on schedule.

Along with the variables from stage 1, additional factors relevant to the Adhocracy culture are incorporated in the second stage. Among the factors considered are employees' commitment,

innovation, organizational adaptability, flexibility, internal motivating tactics, leadership impact, and working capacity.

$R^2 = 0.74$, adjusted $R^2 = 0.60$, which shows that adding these factors will dramatically increase the model's predictive ability. This indicates that the entire model in Step 2 explains a considerable portion of the variance in on-time delivery.

Employee commitment values ($= 0.48$, $p .01$), innovation values ($= 0.42$, $p .01$), organizational adaptability ($= 0.37$, $p .01$), and organizational motivational strategies ($= 0.14$, $p .01$) all exhibit significant positive relationships with on-time delivery among the individual variables in Step 2. Organizational flexibility ($= -0.28$, $p .01$), top management influence ($= -0.11$, $p >.05$), and working ability ($= -0.09$, $p >.05$) do not significantly affect on-time delivery, on the other hand.

The results imply that the adhocracy culture, defined by workers' commitment values, innovation values, organizational adaptability, and motivating techniques, significantly influences the firm's on-time delivery. These elements favourably affect the company's capacity to complete projects on schedule.

DISCUSSION

The analysis's findings align with other studies on the connection between organizational culture and on-time delivery. For instance, research by Zhang et al. (2017) showed that companies with a strong Adhocracy culture were more likely to execute projects on schedule than those with a poor Adhocracy culture. The study also discovered that staff engagement and creativity mediated the link between the Adhocracy culture and on-time delivery.

One study that supports the current research finding is by Kuo et al. (2020), which found that organizational culture significantly influences on-time delivery performance. Another study by Huang and Lin (2021) found that innovation culture positively influences on-time delivery performance. These studies support the finding of the current research that adhocracy culture has a significant influence on the firm's on-time delivery.

The analysis's conclusions have many ramifications for businesses hoping to boost their performance regarding on-time delivery. The dedication and innovative values of workers should be emphasized by corporations first.

This may be accomplished by fostering an environment at work that encourages creativity and invention and by recognizing staff members for their dedication to the company. Second, businesses need to promote organizational agility. This may be accomplished by designing a flexible workplace that is simple to adjust to change and giving workers the tools and resources they require to succeed in a dynamic setting. Third, businesses have to use powerful motivating techniques. This may be achieved by setting clear goals and objectives for staff and rewarding them for their successes.

These suggestions help firms develop a culture that supports on-time delivery. They will perform better and have a competitive edge as a result.

CONCLUSION

The study found significant correlations between the adhocracy culture and various performance metrics. The adhocracy culture was positively correlated with the frequency of product distribution, operational costs (except for motivational tactics), on-time delivery, and customer satisfaction. The results indicate that aspects of the adhocracy culture, such as

employee dedication, innovative values, organizational adaptability, flexibility, leadership influence, and working capacity, significantly impact these performance measures.

Furthermore, the study revealed that factors such as gender, age, educational level, and years of experience also influence on-time delivery. Including adhocracy culture-related elements significantly enhanced the model's predictive power for on-time delivery. Specifically, employee commitment values, innovation values, organizational flexibility, and motivational techniques were positively associated with on-time delivery.

However, organizational flexibility, Top Management influence, and workability did not significantly impact on-time delivery. These findings suggest that while these factors may still be necessary for overall organizational performance, they do not significantly affect a company's ability to distribute goods to distributors on schedule.

In conclusion, the study highlights the importance of gender, age, educational attainment, years of experience, and the adhocracy culture in determining on-time delivery. Focusing on these factors and promoting an adhocracy culture can help businesses improve their performance in terms of distribution logistics, operational costs, on-time delivery, and customer satisfaction.

Recommendations

Here are some possible recommendations based on the findings:

- **Prioritize increasing and building leadership impact:** Given the significant positive relationships between leadership influence and several other factors, businesses should prioritize effective leadership practices and skills. Investing in coaching, mentoring, and leadership development programs may enhance leadership influence and positively impact creativity, adaptability, motivational techniques, and working capacity.
- **Encourage a culture of innovation:** According to the favourable links between innovation values and several factors, businesses should promote and support an innovative culture. This may be done by encouraging innovation, funding research and development, and setting up systems for developing and implementing ideas. Improvements in adaptability, flexibility, productivity, and customer happiness can result from placing a strong emphasis on innovation.
- **Increase organizational adaptation and flexibility:** Positive relationships between organizational adaptability/flexibility and several other factors show how important it is to be responsive to changing conditions. Building agility and the capacity to change to meet customer wants, market dynamics, and emerging trends should be a top priority for organizations. Processes, structures, and systems need reevaluation to adapt to new possibilities and problems swiftly.
- **Put effective motivational strategies into practice:** Organizations should invest in learning about and putting effective motivational tactics into practice, since effective motivational strategies demonstrate good relationships with innovative values and working capacity. This may entail fostering a positive work atmosphere, appreciating and rewarding employee efforts, offering chances for professional advancement, and guaranteeing open lines of communication and feedback.
- **Give customer satisfaction and on-time delivery top priority:** Due to the strong relationship between customer satisfaction and elements like innovative values, leadership impact, and on-time delivery, businesses should give this goal a top priority. This might entail boosting supply chain management, optimizing distribution procedures, raising the quality of the product/service, and guaranteeing on-time delivery.
- **Constantly track and control operational costs:** Even if they are not highly associated with the other factors, operating costs impact the entire business's performance.

Companies should periodically examine and assess their cost structures, pinpoint possibilities to increase efficiency, and look for ways to cut costs without sacrificing satisfaction or quality.

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