

**Demographic and Work-Related Factors Associated with Innovative Work Behavior
among Telecommunications Employees in Ibadan, Nigeria**

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Abstract

This study examined demographic and work-related factors associated with Innovative Work Behavior among telecommunications employees in Ibadan, Nigeria. A cross-sectional descriptive survey design was adopted, and data were obtained from 194 full-time employees of selected MTN Nigeria and Airtel Nigeria offices in Ibadan, Oyo State. Innovative Work Behavior, measured as the dependent variable, was assessed using a 16-item scale covering idea generation, idea promotion, idea implementation, support for innovation, testing of new work methods and practical application of creative solutions. The demographic and work-related variables examined were gender, age group, highest qualification, years of work experience, job category and organisation/company. Data were analysed using frequencies, percentages, means, standard deviations, independent samples t-tests, one-way ANOVA and exploratory dummy-coded regression. Gender did not significantly differentiate Innovative Work Behavior, $t(188) = .170$, $p = .865$, and organisation also showed no significant difference, $t(192) = -.361$, $p = .718$. Age group significantly differentiated Innovative Work Behavior, $F(4, 189) = 2.613$, $p = .037$, eta squared = .052. Highest qualification, $F(5, 188) = 7.447$, $p < .001$, eta squared = .165, and job category, $F(5, 188) = 7.452$, $p < .001$, eta squared = .165, were also significant. Years of work experience was not significant, $F(3, 190) = .600$, $p = .616$. The exploratory regression model explained 31.1% of the variance in Innovative Work Behavior, $R = .558$, $R^2 = .311$, adjusted $R^2 = .232$, $F(20, 173) = 3.908$, $p < .001$. The findings suggest that Innovative Work Behavior varied more by age group, qualification and job category than by gender, organisation or years of experience. The results are associative rather than causal.

Keywords: Innovative Work Behavior; demographic factors; work-related factors; telecommunications employees; MTN; Airtel; Ibadan

Introduction

Employee innovation is increasingly examined as an employee-level behaviour rather than as an activity limited to research units, product teams or senior management. In service-oriented organisations, employees encounter operational problems, customer complaints, workflow delays and communication gaps that may require practical improvement. Their willingness to generate, promote and implement useful ideas is therefore relevant to organisational adaptation and service quality.

Innovative Work Behavior refers to intentional employee behaviour directed towards the generation, promotion and implementation of useful new ideas in a work role, group or organisation. De Spiegelaere, Van Gyes, and Van Hootegeem (2014) defined innovative work behaviour as behaviour aimed at creating, introducing and applying new ideas within a work context. Samma, Zhao, Rasool, Han, and Ali (2020) also treated innovative work behaviour as an employee-level construct shaped by workplace and personal conditions. This behavioural view is useful because it recognises that innovation may emerge from everyday work roles, not only from formal organisational innovation units.

The telecommunications sector provides an appropriate setting for examining variation in Innovative Work Behavior. Telecommunications work is shaped by service pressure, digital systems, customer interaction, changing procedures and the need for rapid problem-solving. In this context, innovation may involve improving customer-handling routines, suggesting better documentation processes, supporting new service procedures, strengthening internal communication or applying more efficient approaches to recurrent work challenges. Such behaviour may be relevant across customer service, sales, technical, administrative and management roles.

While psychological resources such as confidence, resilience and emotional competence may explain part of employee innovation, demographic and work-related characteristics may also be associated with variation in innovation-related behaviour. These characteristics should not be treated as automatic causes of innovation. Rather, they may reflect differences in role exposure, educational preparation, problem-solving opportunity, customer or service contact, organisational authority, confidence to suggest improvements and access to implementation opportunities.

Gender should be examined without stereotyping because innovation-related behaviour may be shaped more by organisational expectations and role opportunities than by gender category. Age group may be associated with career-stage exposure, adaptation to work demands and confidence in responding to organisational problems. Educational qualification may be related to problem-solving orientation and work-role interpretation. Years of work experience may shape familiarity with organisational systems, although experience alone may not guarantee innovative behaviour. Job category may be particularly important because different roles provide different levels of access to customer problems, technical issues, administrative routines and implementation authority. Organisation/company may also be

relevant if local organisational routines and innovation climates differ between MTN and Airtel offices.

This article therefore examines demographic and work-related factors associated with Innovative Work Behavior among full-time employees of selected MTN Nigeria and Airtel Nigeria offices in Ibadan, Nigeria. The article differs from a psychological-predictor analysis by focusing specifically on gender, age group, highest qualification, years of work experience, job category and organisation/company as salient demographic and work-related variables. The aim is to determine whether Innovative Work Behavior differs significantly across these categories and whether the variables jointly explain variation in Innovative Work Behavior.

Literature Review and Hypotheses

Innovative Work Behavior is commonly understood as a multi-stage process involving idea generation, idea promotion and idea implementation. Idea generation refers to recognising work problems and suggesting possible solutions. Idea promotion involves gaining support for ideas from colleagues, supervisors or other relevant actors. Idea implementation refers to practical efforts to test, apply or institutionalise useful ideas. De Spiegelaere et al. (2014) emphasised the creating, introducing and applying dimensions of innovative work behaviour, while Samma et al. (2020) showed that innovation-related behaviour can be studied in relation to employee and workplace conditions.

Recent empirical literature supports the relevance of Innovative Work Behavior across service and organisational contexts. Aristana et al. (2024) linked innovative work behaviour with transformational leadership, knowledge sharing and psychological empowerment in small and medium enterprises. Chaiyapruksayanonde and Ponchaitiwat (2025) examined supportive work environments and innovative work behaviour in hospitality, a service context where employee initiative and responsiveness are relevant. Binsaeed, Yousaf, Grigorescu, Condrea, and Nassani (2023) also connected innovative work behaviour with broader innovation performance in a service-related industry. These studies support the view that employee innovation is partly shaped by the social and organisational environment in which employees work.

Demographic and work-related factors are possible correlates of workplace behaviour because they may reflect differences in exposure, resources and opportunities. However, such variables must be interpreted cautiously. Gender, for example, should not be used to make assumptions about employees' inherent innovativeness. If gender differences are not statistically significant, this may suggest that innovation-related behaviour in a given sample is more closely associated with role demands, organisational support or employee-level resources than with gender category. If differences are found, they still require contextual explanation rather than stereotyping.

Age group may be relevant because employees at different career stages may differ in workplace exposure, adaptation to technology and willingness to propose change. Younger employees may be more open to experimentation in some contexts, while older employees

may possess deeper organisational knowledge. Neither pattern should be assumed before empirical testing. Similarly, educational qualification may be related to the way employees interpret work problems, communicate suggestions and approach problem-solving, but formal qualification alone does not establish innovation capacity.

Work experience may influence Innovative Work Behavior through familiarity with organisational routines and recurring work problems. Employees with longer service may know where improvements are needed, while less experienced employees may bring fresh perspectives. The relationship may therefore be complex. Job category may be even more directly connected to innovation opportunity because roles differ in exposure to customer complaints, technical breakdowns, sales demands, administrative bottlenecks and decision authority. Administrative employees may identify workflow issues, technical employees may identify system problems, customer-service employees may observe repeated complaints, and management employees may have more authority to support implementation.

In the Nigerian telecommunications context, Akhigbe and Bibiebi (2017) examined managerial personality and innovative work behaviour in telecommunications firms, indicating that employee-level characteristics are relevant in this sector. Erah and Jaja (2024) examined behavioural cultural intelligence and innovative work behaviour among telecommunications companies in South-South Nigeria, while Badru, Karadas, Olugbade, and Hassanie (2024) examined employee voice in relation to workplace systems and supervisory trust. Although these studies differ from the present article in variables and setting, they support the relevance of employee expression, innovation-related behaviour and workplace conditions in Nigerian organisational contexts.

The following hypotheses were tested in alternative form for journal presentation: H1: Innovative Work Behavior will differ significantly by gender among telecommunications employees in Ibadan. H2: Innovative Work Behavior will differ significantly by age group among telecommunications employees in Ibadan. H3: Innovative Work Behavior will differ significantly by highest qualification among telecommunications employees in Ibadan. H4: Innovative Work Behavior will differ significantly by years of work experience among telecommunications employees in Ibadan. H5: Innovative Work Behavior will differ significantly by job category among telecommunications employees in Ibadan. H6: Innovative Work Behavior will differ significantly by organisation/company among telecommunications employees in Ibadan. H7: Demographic and work-related factors will jointly predict Innovative Work Behavior among telecommunications employees in Ibadan.

Methodology

The study adopted a cross-sectional descriptive survey design. This design was appropriate because data were collected from respondents at one point in time using a structured questionnaire. The design allowed the researcher to examine group differences and exploratory predictive associations between demographic/work-related factors and Innovative Work Behavior without manipulating any variable. Consequently, the findings are interpreted as differences, associations and exploratory prediction rather than causal effects.

The population comprised full-time employees of selected MTN Nigeria and Airtel Nigeria offices in Ibadan, Oyo State. The valid sample consisted of 194 respondents, comprising 108 MTN employees and 86 Airtel employees. MTN and Airtel were selected purposively because they are major telecommunications operators with identifiable offices in Ibadan. Individual respondents were selected through convenience sampling based on eligibility, availability and voluntary participation. Because the study used non-probability sampling and was limited to selected MTN and Airtel offices in Ibadan, generalisation beyond the sampled context should be cautious.

The research instrument was a structured self-administered questionnaire administered in English. The questionnaire contained demographic and work-related items covering gender, age group, highest qualification, years of work experience, job category and organisation/company. Innovative Work Behavior was measured with 16 items covering idea generation, idea promotion, idea implementation, support for innovation, testing of new work methods and practical application of creative solutions. Responses were coded on a five-point Likert scale ranging from Strongly Disagree = 1 to Strongly Agree = 5. Higher scores indicated higher levels of Innovative Work Behavior. The composite mean score of the 16 Innovative Work Behavior items was used as the dependent variable.

The Innovative Work Behavior scale showed excellent internal consistency, with Cronbach's alpha of .912. This indicated that the items were sufficiently consistent for the statistical analysis. Data were analysed using frequencies, percentages, means, standard deviations, independent samples t-tests, one-way analysis of variance and exploratory multiple regression. Independent samples t-tests were used for gender and organisation differences. One-way ANOVA was used for age group, highest qualification, years of work experience and job category. The exploratory regression model used dummy coding for categorical demographic and work-related predictors. The regression model was exploratory because the categorical predictors produced multiple dummy-coded contrasts, and some categories had small cell sizes. Statistical significance was assessed at the .05 level.

Ethical safeguards were observed during data collection. Participation was voluntary, informed consent was obtained, responses were treated confidentially, no staff identification numbers were required, and results were reported in aggregate form. The data were used strictly for academic purposes, and individual respondents were not identified.

Results

The analysis was based on 194 valid responses. Table 1 presents the demographic and work-related profile of respondents. The sample included 103 male respondents (53.1%), 87 female respondents (44.8%) and 4 respondents (2.1%) who preferred not to disclose their gender. The largest age group was 31-35 years (31.4%). Half of the respondents had B.Sc qualifications (50.0%). The largest work-experience category was 4-6 years (40.7%). Technical and sales categories each accounted for 24.2% of the sample. MTN respondents were 108 (55.7%), while Airtel respondents were 86 (44.3%).

Table 1**Demographic and Work-Related Profile of Respondents**

Variable/Category	Frequency	Percentage
Gender		
Male	103	53.1
Female	87	44.8
Prefer not to say	4	2.1
Age group		
18-25 years	50	25.8
26-30 years	41	21.1
31-35 years	61	31.4
36-40 years	34	17.5
41 years and above	8	4.1
Highest qualification		
SSCE/Secondary School	7	3.6
ND	18	9.3
HND	25	12.9
B.Sc	97	50.0
M.Sc	43	22.2
Other qualifications	4	2.1
Years of work experience		
Less than 1 year	20	10.3
1-3 years	49	25.3
4-6 years	79	40.7
7 years and above	46	23.7
Job category		
Administrative	24	12.4
Customer Service	27	13.9
Technical	47	24.2
Sales	47	24.2
Management	25	12.9
Other job categories	24	12.4
Organisation		
MTN	108	55.7
Airtel	86	44.3

Table 2 presents mean Innovative Work Behavior scores by demographic and work-related categories. Findings involving SSCE/secondary school respondents and respondents with other qualifications should be interpreted cautiously because these categories had small cell sizes. The same caution applies to the small gender category for respondents who preferred not to disclose gender and to the 41 years and above age group.

Table 2**Mean Innovative Work Behavior Scores by Demographic and Work-Related Categories**

Category	N	Mean	SD
Gender: Male	103	3.69	.63
Gender: Female	87	3.67	.60
Gender: Prefer not to say	4	3.59	.74
Age: 18-25 years	50	3.80	.52
Age: 26-30 years	41	3.43	.62
Age: 31-35 years	61	3.72	.57
Age: 36-40 years	34	3.77	.72
Age: 41 years and above	8	3.49	.77
Qualification: SSCE/Secondary School	7	4.00	.00

Qualification: ND	18	3.83	.50
Qualification: HND	25	3.24	.49
Qualification: B.Sc	97	3.77	.64
Qualification: M.Sc	43	3.52	.53
Qualification: Other qualifications	4	4.73	.35
Experience: Less than 1 year	20	3.81	.53
Experience: 1-3 years	49	3.62	.60
Experience: 4-6 years	79	3.65	.60
Experience: 7 years and above	46	3.73	.70
Job: Administrative	24	3.93	.74
Job: Customer Service	27	3.56	.51
Job: Technical	47	3.37	.60
Job: Sales	47	3.65	.61
Job: Management	25	3.75	.54
Job: Other job categories	24	4.16	.25
Organisation: MTN	108	3.66	.55
Organisation: Airtel	86	3.70	.69

Independent samples t-tests were conducted for gender and organisation. For gender, only male and female respondents were included in the t-test; the four respondents who preferred not to disclose gender were excluded from this comparison. As shown in Table 3, gender did not significantly differentiate Innovative Work Behavior, $t(188) = .170$, $p = .865$, Cohen's $d = .025$. Organisation also did not significantly differentiate Innovative Work Behavior, $t(192) = -.361$, $p = .718$, Cohen's $d = -.052$. Therefore, H1 and H6 were not supported.

Table 3**Independent Samples t-Test for Gender and Organisation Differences in Innovative Work Behavior**

Comparison	df	t	p	Cohen's d	Decision
Gender (Male vs Female)	188	.170	.865	.025	Not significant
Organisation (MTN vs Airtel)	192	-.361	.718	-.052	Not significant

One-way ANOVA was conducted for age group, highest qualification, years of work experience and job category. As shown in Table 4, age group significantly differentiated Innovative Work Behavior, $F(4, 189) = 2.613$, $p = .037$, eta squared = .052. Highest qualification also showed a statistically significant difference, $F(5, 188) = 7.447$, $p < .001$, eta squared = .165. Years of work experience was not significant, $F(3, 190) = .600$, $p = .616$, eta squared = .009. Job category significantly differentiated Innovative Work Behavior, $F(5, 188) = 7.452$, $p < .001$, eta squared = .165. These results supported H2, H3 and H5, but did not support H4. No post-hoc comparison is reported because a full post-hoc test table was not available in the manuscript used for this revision.

Table 4**ANOVA Results for Demographic and Work-Related Differences in Innovative Work Behavior**

Variable	df	F	p	η^2	Decision
Age group	4, 189	2.613	.037	.052	Significant
Highest qualification	5, 188	7.447	< .001	.165	Significant
Years of work experience	3, 190	.600	.616	.009	Not significant
Job category	5, 188	7.452	< .001	.165	Significant

An exploratory multiple regression was conducted using dummy-coded demographic and work-related variables as predictors of Innovative Work Behavior. The model was statistically significant, $R = .558$, $R^2 = .311$, adjusted $R^2 = .232$, $F(20, 173) = 3.908$, $p < .001$. This means that the demographic and work-related predictors jointly explained 31.1% of the variance in Innovative Work Behavior. However, the adjusted R^2 indicates that the explanatory strength reduced after accounting for the number of predictors. In the model, selected qualification and job-category contrasts were significant, while gender, organisation, age contrasts and years of work experience were mostly not significant when entered jointly. The regression model should be treated as exploratory because the categorical predictors produced multiple dummy-coded contrasts and some categories had small cell sizes.

Table 5***Exploratory Regression Model of Demographic and Work-Related Predictors of Innovative Work Behavior***

Predictor/Model	Coefficient/Model Value	Test Statistic	p
Model summary	$R = .558$; $R^2 = .311$; adjusted $R^2 = .232$	$F(20, 173) = 3.908$	$< .001$
Female vs Male	$B = -.127$	$t = -1.393$	.165
Prefer not to say vs Male	$B = -.127$	$t = -.438$	.662
26-30 vs 18-25 years	$B = -.167$	$t = -1.277$	.203
31-35 vs 18-25 years	$B = .099$	$t = .736$	.463
36-40 vs 18-25 years	$B = .090$	$t = .565$	.573
41+ vs 18-25 years	$B = -.213$	$t = -.914$	.362
SSCE/Secondary vs B.Sc	$B = .510$	$t = 1.902$	.059
ND vs B.Sc	$B = .033$	$t = .222$	.824
HND vs B.Sc	$B = -.406$	$t = -3.018$	.003
M.Sc vs B.Sc	$B = -.217$	$t = -2.034$	.043
Other qualifications vs B.Sc	$B = .735$	$t = 2.486$	.014
Less than 1 year vs 4-6 years	$B = .009$	$t = .053$	.958
1-3 years vs 4-6 years	$B = .025$	$t = .225$	.822
7+ years vs 4-6 years	$B = -.043$	$t = -.387$	.699
Administrative vs Technical	$B = .461$	$t = 3.113$	.002
Customer Service vs Technical	$B = -.066$	$t = -.448$	.655
Sales vs Technical	$B = .150$	$t = 1.239$	.217
Management vs Technical	$B = .371$	$t = 2.636$	.009
Other job categories vs Technical	$B = .586$	$t = 3.690$	$< .001$
Airtel vs MTN	$B = -.020$	$t = -.230$	.818

Note. Reference categories were Male, 18-25 years, B.Sc, 4-6 years of work experience, Technical job category and MTN. The regression model was exploratory because some categories had small cell sizes.

Discussion

The first hypothesis proposed that Innovative Work Behavior would differ significantly by gender. The result did not support this hypothesis. Male and female respondents reported very similar mean scores, and the t-test was not statistically significant. This finding suggests that gender did not produce a meaningful difference in self-reported Innovative Work Behavior within the present sample. The result should not be interpreted as evidence that gender is universally irrelevant to workplace innovation. Rather, it indicates that, among the

sampled MTN and Airtel employees in Ibadan, innovation-related behaviour appeared to be more closely connected to other work-related conditions than to gender category.

This non-significant gender finding is useful because it cautions against stereotypes about who is expected to generate or implement ideas. Innovative Work Behavior involves role opportunity, communication, access to work problems and support for implementation (De Spiegelaere et al., 2014; Samma et al., 2020). If male and female employees have comparable exposure to work demands and similar opportunities to suggest improvements, gender differences may not emerge. For management, the implication is that innovation-support systems should be inclusive and should not assume that one gender group is more suited to innovation-related roles.

The second hypothesis proposed that Innovative Work Behavior would differ significantly by age group. The result supported this hypothesis, although the eta squared value indicated a modest effect size. Respondents aged 18-25 years, 31-35 years and 36-40 years reported relatively higher mean scores than respondents aged 26-30 years and those aged 41 years and above. Because no verified post-hoc table was available for this revision, the finding is interpreted only at the overall ANOVA level. The small number of respondents aged 41 years and above also requires caution.

Age-related variation may reflect differences in work positioning, adaptation and opportunity rather than age itself. Younger employees may be more open to new routines in some contexts, while mid-career employees may combine confidence with work exposure. Older employees may possess valuable experience but may not always have the same role conditions or organisational encouragement for self-reported idea promotion. These interpretations remain tentative because the design was cross-sectional and the study did not directly measure organisational support, technology adaptation or innovation climate.

The third hypothesis proposed that Innovative Work Behavior would differ significantly by highest qualification. This hypothesis was supported. The ANOVA result showed statistically significant differences across qualification groups, and the exploratory regression showed significant contrasts for HND, M.Sc and other qualifications when B.Sc was used as the reference category. Findings involving SSCE/secondary school respondents and other qualifications should be interpreted cautiously because these groups had small cell sizes. The zero standard deviation in the SSCE/secondary category also indicates that the category was too small to support strong inference.

Qualification-related differences may reflect variation in educational preparation, work allocation, confidence in problem-solving and role interpretation. However, the findings should not be read as meaning that one qualification level is inherently more innovative than another. Formal education may support some dimensions of workplace problem-solving, but innovation opportunities also depend on job design, supervision, authority and organisational climate. The result indicates that qualification was associated with variation in Innovative Work Behavior within this sample, not that educational qualification caused innovative behaviour.

The fourth hypothesis proposed that Innovative Work Behavior would differ significantly by years of work experience. This hypothesis was not supported. The ANOVA result was not statistically significant, suggesting that length of work experience alone did not produce meaningful differences in Innovative Work Behavior among the respondents. Although employees with less than one year of experience and those with seven years and above had slightly higher mean scores than some other groups, those differences were not statistically meaningful.

This finding suggests that familiarity with organisational systems may not automatically translate into innovation-related behaviour. Experienced employees may know organisational routines well, but they still need opportunity, support and confidence to suggest improvements. Less experienced employees may bring fresh perspectives, but may lack authority or familiarity with implementation channels. The non-significant result therefore points to the need to examine work experience together with other variables such as psychological safety, supervision, role autonomy and perceived organisational support.

The fifth hypothesis proposed that Innovative Work Behavior would differ significantly by job category. This hypothesis was supported. Job category showed a statistically significant difference, with other job categories, administrative roles and management roles reporting higher mean scores than some other groups, while technical employees reported the lowest mean score in the dataset. The exploratory regression also showed significant positive contrasts for administrative, management and other job categories relative to technical roles.

The job-category finding is theoretically plausible because job roles provide different exposure to innovation opportunities. Administrative employees may observe documentation, scheduling and workflow issues. Management employees may have more authority to support implementation. Other job categories may include flexible roles with varied tasks. Technical employees may engage in problem-solving, but their self-reported idea promotion and implementation may be shaped by workload, role boundaries or approval structures. The result should not be interpreted as meaning that technical employees are less capable of innovation; it may indicate that their opportunities to report idea promotion and implementation differ from other categories.

The sixth hypothesis proposed that Innovative Work Behavior would differ significantly by organisation/company. This hypothesis was not supported. MTN and Airtel respondents reported similar mean scores, and the t-test was not statistically significant. The Airtel versus MTN contrast was also not significant in the exploratory regression. This indicates that, within the selected Ibadan offices, organisation/company did not produce a meaningful difference in self-reported Innovative Work Behavior.

The non-significant organisation finding should be interpreted cautiously. It does not mean that MTN and Airtel have identical organisational cultures, policies or innovation climates. It only means that, in this sample and on this measure, respondents from the two organisations did not differ significantly in Innovative Work Behavior. This may reflect

similar service demands, comparable telecommunications work pressures or similar branch-level expectations in the sampled locations.

The seventh hypothesis proposed that demographic and work-related factors would jointly predict Innovative Work Behavior. The exploratory regression model was statistically significant and explained 31.1% of the variance in Innovative Work Behavior. However, the adjusted R^2 of .232 shows that explanatory strength reduced after adjustment for the number of predictors. This indicates that demographic and work-related factors contributed to variation in Innovative Work Behavior but did not provide a complete explanation.

Overall, the findings show mixed relevance of demographic and work-related variables. Age group, highest qualification and job category were statistically significant, while gender, years of work experience and organisation were not. This pattern aligns with the wider innovation literature, which suggests that innovation-related behaviour is shaped by workplace opportunity, role context, employee resources and organisational support (Aristana et al., 2024; Chaipayruksayanonde & Ponchaitiwat, 2025; De Spiegelaere et al., 2014; Samma et al., 2020). Nigerian telecommunications evidence also supports the importance of employee-level and organisational conditions in understanding innovation-related behaviour and employee expression (Akhigbe & Bibiebi, 2017; Badru et al., 2024; Erah & Jaja, 2024).

Conclusion

This article concludes that demographic and work-related factors showed selective associations with Innovative Work Behavior among telecommunications employees in Ibadan, Nigeria. Gender, organisation/company and years of work experience did not significantly differentiate Innovative Work Behavior. Age group, highest qualification and job category significantly differentiated Innovative Work Behavior. The exploratory regression model further showed that demographic and work-related variables jointly explained part of the variance in Innovative Work Behavior.

The findings suggest that variation in Innovative Work Behavior among the respondents was more closely associated with age group, educational qualification and job-role category than with gender, organisation or length of work experience. However, the findings are group differences and exploratory associations, not causal effects. They are also limited to full-time employees of selected MTN Nigeria and Airtel Nigeria offices in Ibadan and should not be generalised to all telecommunications employees in Nigeria without further evidence.

Recommendations/Implications

First, innovation training should be inclusive across gender and organisation because gender and organisation did not significantly differentiate Innovative Work Behavior in this sample. MTN and Airtel employees should have equal access to idea-sharing platforms, innovation-support structures and staff-development opportunities.

Second, role-specific innovation support should be developed because job category significantly differentiated Innovative Work Behavior. Management should examine whether some roles have fewer opportunities to generate, promote or implement ideas, and should

create mechanisms that allow technical, customer-service, sales, administrative and management employees to contribute to service improvement.

Third, employees in role categories that reported lower Innovative Work Behavior should receive mentoring, exposure to idea-sharing platforms and guided problem-solving opportunities. Such support should not stigmatise any job category; it should broaden access to innovation processes and clarify how employees in different roles can contribute.

Fourth, qualification-related differences should be addressed through inclusive staff-development programmes. Management and HR units should avoid assuming that innovation belongs only to employees with particular qualifications. Practical training in problem-solving, communication, service improvement and idea implementation should be accessible across qualification groups.

Fifth, although years of work experience was not significant, collaboration between newer and more experienced employees may still be useful. Pairing employees across experience levels may combine fresh perspectives with organisational knowledge and help employees identify realistic improvement opportunities.

Finally, MTN and Airtel offices should create formal and psychologically safe mechanisms for employee idea-sharing, such as suggestion systems, service-improvement meetings, team innovation sessions and feedback channels. Small subgroup findings should not be used to stigmatise any educational, demographic or role group.

Limitations and Future Research

This study has several limitations. First, it used a cross-sectional design, which means that the findings cannot establish causal direction or show changes in Innovative Work Behavior over time. Second, the data were obtained through self-report questionnaire responses, which may be affected by social desirability, personal interpretation of items or response bias. Third, the study used non-probability sampling, which limits the extent to which the findings can be generalised.

Fourth, the sample was restricted to selected MTN and Airtel offices in Ibadan, Oyo State. The findings should not be generalised to all telecommunications employees in Nigeria or to all employees of MTN and Airtel nationally. Fifth, some categories had small cell sizes, especially SSCE/secondary school, other qualifications, respondents who preferred not to disclose gender and respondents aged 41 years and above. This limits the strength of conclusions drawn from those categories.

Sixth, the regression model was exploratory because the categorical predictors required multiple dummy-coded contrasts. Demographic variables alone cannot fully explain Innovative Work Behavior. Future studies should include larger samples, probability sampling where staff lists are available, multiple Nigerian states and other telecommunications firms. Longitudinal studies would help examine changes over time, while qualitative interviews could provide deeper understanding of how employees experience innovation opportunities across job roles. Future research may also combine

demographic and work-related factors with psychological and organisational variables such as leadership style, psychological safety, job autonomy, perceived organisational support and work engagement.

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