

Teamwork and Open-mindedness as Correlates of Job Satisfaction and Commitment of Metalwork Technicians in Industries in Northern Nigeria

by

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Abstract

This study was conducted to investigate the relationship between teamwork and open-mindedness with job satisfaction and commitment among metalwork technicians in northern Nigeria. Three research questions guided the study while three null hypotheses were tested at 0.05 level of significance. The study adopted correlational survey design. The population for the study was 148 metalwork technicians. Total population sample was adopted as the population was manageable. The instrument for data collection was Teamwork, Open-mindedness, Job Satisfaction and Commitment Questionnaire (TOJSCQ). Data for the study was collected by the researchers and three research assistants. Product Pearson Moment Correlation method was used to analyze collected data for answering research questions and for testing hypotheses. For testing the hypotheses, if the Sig (2-tailed) value is less than 0.05, the correlation is considered statistically significant. The findings of the study included that there was a strong positive relationship between teamwork and job satisfaction of metalwork technicians in industries in northern Nigeria. It was recommended that, managers in metal industries should be prioritizing teamwork among metalwork technicians by offering required information and opinions for solving technical problems in order to improve job satisfaction among the technicians.

Keywords: Teamwork, Open-mindedness, Job satisfaction, Job commitment

Introduction

Technicians are important personnel in workshops and laboratories because of their skills in technical trades and occupations. These personnel in metal industries work as a team, cooperate and act together to achieve a common goal of processing metals to the specified shapes and sizes. For one to work in industry as a technician, the technical personnel has to be open-minded by considering other peoples' views and ideas regarding execution of the technical work being carried out. As the employers demand high commitment from the employees, so do the employees look for pleasure, happiness and job satisfied working environment. Technician refers to a person skilled in mechanical or industrial techniques or in a

particular technical field such as metal industries. According to Lewis (2019) technicians are workers occupying roles that require intermediate that is, level three to five skills in science, technology, engineering and/or mathematics. Technicians possess post-secondary school qualifications such as national diploma, national certificate of education and labour trade test III, II and I. according to Obianyo et al (2021). Technicians have many areas of specialization in several technology-related occupations. Such areas of specialization include: work safety, systems, sciences, data processing, information systems, engineering, laboratory work, machinery, electronics, computer repair, automation, pharmacy, and emergency medical services. According to Shodipe and

Ohanu (2023) several technicians have been exposed to danger and varying degree of risk, exposed to diverse grades of occupational and health hazard, injuries and death which may arise from accidents. Therefore, technicians are skilled industrial workers possessing post-secondary technical qualification and specialized in a particular field. Technicians work in team, cooperate and play significant role in managing industries in Northern Nigeria.

Teamwork refers to cooperative or coordinated effort on the part of a group of persons acting together in the interests of a common cause. It the process through which team members collaborate to achieve task goals. According to NYPD (2024) teamwork is the collaborative effort of a team to achieve a common goal or to complete a task in the most effective and efficient way. This concept is seen within the greater framework of a team, which is a group of interdependent individuals who work together towards a common goal. Assbeihat (2016) stated that team work is the behavior, knowledge and attitudes that contribute to a team's efforts to achieve a common goal. On the purpose of team work, Writer (2015) stated that the purpose of teamwork is to help increase productivity, quality and to provide a support system for each member of the team. According to Agarwal & Adjirackor (2016) Employers may be able to improve their performance by increasing the volume of teamwork and taking action to raise the performance level of the individual, but to succeed in this they need to pay attention to the quantity and type of teamwork offered. There seem to be lack of trust among technicians. Trust is crucial for effective teamwork which takes years to build and second to destroy. Therefore, teamwork is a workers' collaborative effort which aim at increasing productivity particularly among open-minded technicians.

Open-mindedness refers to the quality of being willing to consider ideas and opinions that are new or different to your own or willing to listen to other people and consider new ideas, suggestions, and opinions. According to Hadi AL-Abrow et al., (2021) open-mindedness contributes to sharing ideas, suggestions and views between the team members to receive different ideas from various sources. Soosahab et al., (2020) stated that Individuals with open-mindedness will be more willing to accept learning and new concepts. Open-mindedness tends to give up the previous knowledge and update the current understanding to abandon old expertise and adopt new creativity (Olokundun et al., 2017). According to Fu et al., (2016) open-mindedness reduces psychological barriers to merging with another person, other ideas, methods and applications. Therefore, open-mindedness is a quality possessed by technician that enable him to share ideas, learn new concept and adopt new ideas. Ideally, open-minded technicians should be always happy satisfied with their jobs.

Job satisfaction refers to the degree of pleasure or happiness that an individual feels in their job. According to Aziri (2011) job satisfaction represents one of the most complex areas facing today's managers when it comes to managing their employees as many studies have demonstrated an unusually impact on the job satisfaction on the motivation of workers, while the level of motivation has an impact on productivity, and hence also on performance of business organizations. FutureLearn (2022) stated that the amount of satisfaction someone gets from a job is entirely dependent on their aims, goals and values. One person might find job satisfaction from having a simple job and getting a regular paycheck to put towards their interests, while someone else might find this kind of job lacks satisfaction and desire professional challenges. In the opinion of Montuori et al., (2022) job satisfaction reflects

on overall life quality involving social relationships, family connection and perceived health status, affecting job performances, work absenteeism and job turnover, leading, in some cases, to serious psychological condition such as burnout. Dziuba et al., (2020) stated that a satisfied employee devotes himself to work, performs orders better, cares for others and for himself. Satisfying the needs and wants of individual worker brings about more commitment and success of organization in which he works. There appears to be limited career growth for technicians as some of the industries do not offer professional development opportunities. Therefore, job satisfaction is the degree of happiness workers derive from their work which depends on the goals, aims, values and the performance of the organization in which they work. Technicians' job satisfaction has relationship with their commitment.

Job commitment or organizational commitment is the feeling of responsibility that a person has towards the mission and goals of the organization in which he work. According to Babulal Rajak & Pandey (2017) job commitment relates the employee's feelings towards the institution; the more employees are satisfied with their work the more they are dedicated or committed to the institution. Organizational commitment includes strong confidence and acceptance of organizational goals and values; willingness to exert great effort on behalf of the organization; and strong desire to keep working with the organization (Dajani, 2015). According to Mohammed and Eleswd (2013) organizational commitment is the degree in which individuals adopt organizational values and goals and identifies with them in fulfilling their job responsibility. Parts of organizational fairness relate to the ways in which employees can feel whether they have been treated fairly by the organization in their work and in a certain period, their attitude formed can influence commitment to the organization (Al-Zu'bi,

2010). The financial instability affecting workers in Nigeria has influence on technicians commitment to the industry in which they work. Therefore, job commitment is the feeling of dedication to the organization in which the technician works and the feeling is entirely dependent on the extent in which his needs and wants are satisfied. Well committed technicians are the proud of every metal industry.

In industries in northern Nigeria, metalwork technicians use machines, tools and equipment to manufacture metal components, roofing sheets, textiles, plastics, books, and confectioneries. Metalwork technicians are essential workers industries. Metalwork technicians interpret blueprints cut, shape, and combine metal materials using various tools and machinery. Metalwork technicians operate machines and perform other metal work skills like welding, foundry, casting, metal forming and fabrication effectively for production in industries (Beako, et al. 2018). Metalwork technicians in northern Nigeria work in teams, identify technical problems in the industry, suggest solution to the identified problems and solve the identified problems. As they work in team to solve technical problems, the metalwork technicians are expected to be open-minded oriented thereby enhancing their ability to embrace new ideas and adjust working methods in response to changes in technology, project requirements, or team dynamics. The metalwork technicians in northern Nigeria are also expected to be well satisfied and committed to their jobs.

There appear to be elements of cognitive bias among metalwork technicians in metalwork industries in Northern Nigeria as the technicians rely on their beliefs and experiences, leading to tunnel vision and resistance to new ideas. Moreover, limited career growth for metalwork technicians exist as some of the industries do not offer professional development and growth. In the same vein the emerging financial instability

affecting workers in Nigeria has influence on technicians commitment to the industry in which they work. Financial instability or job insecurity has influence employees' commitment to the organization in which they work. This study seeks to find solution to the aforementioned hindrances by studying Teamwork and Open-mindedness as Correlates of Job Satisfaction and Commitment of Metalwork Technicians in Industries in Northern Nigeria

Research Questions

1. What is the relationship between teamwork and job satisfaction of metalwork technicians in industries in Northern Nigeria?
2. What is the relationship between teamwork and job commitment of metalwork technicians in industries in Northern Nigeria?
3. What is the relationship between open-mindedness and job commitment of metalwork technicians in industries in Northern Nigeria?

Hypotheses

1. There is no significant relationship between teamwork and job satisfaction of metalwork technicians in industries in Northern Nigeria.
2. There is no significant relationship between teamwork and job commitment of metalwork technicians in industries in Northern Nigeria.
3. There is no significant relationship between open-mindedness and job commitment of metalwork technicians in industries in Northern Nigeria.

Methodology

The study adopted correlational survey design. The design is appropriate as it is used to determine the strength and direction of relationship between two variables. The study was conducted in Northern Nigeria. Specifically the area of the study was: Kaduna, Kano, Kogi and Niger States. The states were selected because of the

concentration of metalwork technicians in their industries. The population for the study was 148 metalwork technicians. Total population sample was adopted as the population was manageable. The instrument for data collection was Teamwork, Open-mindedness, Job Satisfaction and Commitment Questionnaire (TOJSCQ). The Questionnaire was divided into four parts based on the variables studied. Part one contained 15 items that elicited response on teamwork. The part was adopted from University of South Australia (n.d) Teamwork Skills Questionnaire. Part two contained eight items that elicited response on open-mindedness. The part was adopted from Reijseger et al. (2017). Part three contained ten items that elicited response on job satisfaction. The part was adopted from Macdonald and MacIntyre (1997). Part four contained eight items that elicited response on job commitment. The part was adopted from Chandrasekar, et al. (2015). Data for the study was collected by the researcher and four research assistants. Pearson Moment Correlation was used to analyze the collected data. For answering the research questions, Pearson product moment correlation coefficient (R) with values ranged between 0.10-0.29 was considered small, any Pearson product moment correlation coefficient (R) with values ranged between 0.30-0.49 was considered medium whereas Pearson product moment correlation coefficient (R) with values ranged between 0.50-1.00 was considered high. The sign (\pm) indicated positive or negative relationship. For testing the hypotheses, if the Sig (2-tailed) value is less than 0.05, the correlation is considered statistically significant. If the Sig (2-tailed) value is equal to or greater than 0.05, the correlation is considered statistically not significant.

Results

Table: Correlations among teamwork, open mindedness, job satisfaction and job commitment

		Teamwork	Open Mindedness	Job Satisfaction	Job Commitment
Teamwork	Pearson Correlation	1	.871**	.940**	.872**
	Sig. (2-tailed)		.000	.000	.000
	N	148	148	148	148
Open Mindedness	Pearson Correlation	.871**	1	.802**	.915**
	Sig. (2-tailed)	.000		.000	.000
	N	148	148	148	148
Job Satisfaction	Pearson Correlation	.940**	.802**	1	.831**
	Sig. (2-tailed)	.000	.000		.000
	N	148	148	148	148
Job Commitment	Pearson Correlation	.872**	.915**	.831**	1
	Sig. (2-tailed)	.000	.000	.000	
	N	148	148	148	148

** . Correlation is significant at the 0.01 level (2-tailed).

For Research Question One and Hypothesis One, Table one showed the relationship between teamwork and job satisfaction of technicians in metal industries. The Pearson Correlation value of +0.94. This is very high which indicated very strong positive relationship between teamwork and job satisfaction of technicians in metal industries. Table one also showed Sig (2-tailed) value of 0.000. This indicated significant relationship exists between teamwork and job satisfaction of metalwork technicians in industries in Northern Nigeria.

For research question two and hypothesis two, Table one showed relationship between teamwork and job commitment of metalwork technicians in industries. The value

of Pearson Correlation is +0.872. This is very high value indicated strong positive relationship between teamwork and job commitment of metalwork technicians in industries. The Table also showed Sig (2-tailed) value of 0.000. This indicated significant relationship exists between teamwork and job commitment of metalwork technicians in industries.

For research Question three and hypothesis three, Table one showed relationship between open-mindedness and job commitment of metalwork technicians in industries. The value of Pearson Correlation is 0.915. This is very high value which indicated a strong positive relationship between open-mindedness and job commitment of

metalwork technicians in industries. The table also showed Sig (2-tailed) value of 0.000. This indicated significant relationship exists

Discussions of Findings

Finding on research question one showed that, there is strong positive relationship between teamwork and job satisfaction of metalwork technicians in industries in northern Nigeria. Similarly, finding on hypothesis one indicated that, significant relationship exists between teamwork and job satisfaction of metalwork technicians in industries. With this finding, it can be concluded that, working together in a team, by offering information and opinions, solving problems and active listening facilitates job satisfaction among technicians. This is in line with Ahmad et al., (2023) who found out that employees were satisfied and comfortable when working together in a team.

Finding on research two showed that, there is strong positive relationship between teamwork and job commitment of metalwork technicians in industries in northern Nigeria. Similarly, finding on hypothesis two indicated significant relationship exists between teamwork and job commitment of metalwork technicians in industries in northern Nigeria. With these findings, it can be concluded that the teamwork variable, is measured through indicators of suggesting directions to the group, listening actively and giving positive feedback to other members of the group influence job commitment. This is in line with the finding of Syaiful Arifin, (2024) that as the level of employee teamwork increases, his performance level also tends to increase.

Finding on research question three showed that, there is a strong positive relationship between open-mindedness and job commitment of metalwork technicians in industries in northern Nigeria. Similarly,

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between open-mindedness and job commitment of metalwork technicians in industries.

Finding on Hypothesis three indicated that, significant relationship exists between open-mindedness and job commitment of metalwork technicians in industries in northern Nigeria. It can be concluded that, applying elements of open-mindedness such as resolving conflict as they arise among technicians and applying appropriate job procedures will enable the technicians to be more committed to their jobs. This supports the finding of Tjosvold et al., (2022) that integrative conflict management led to open-mindedness where collaborators combine their best ideas that result in high quality contributions to organizations.

Conclusion

There exist a strong relationship between teamwork, job satisfaction and job commitment among metalwork technicians in industries in Northern Nigeria. Moreover, there is strong relationship between Open-mindedness and job commitment among metalwork technicians in industries in Northern Nigeria.

Recommendations

1. Managers in metal industries should be prioritizing teamwork among metalwork technicians by offering required information and opinions for solving technical problems in order to improve job satisfaction among the technicians.

2. Managers in metal industries should be prioritizing open-mindedness among metalwork technicians by applying elements of open-mindedness such as conflict resolution and suggesting applying appropriate job procedures to in order to make the technicians to be more committed to their work.

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