Occupational Creativity as a Predictor of Self-Efficacy, Self-Belief and Productivity of Metalworkers in Imo State

by

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Abstract

The study examines the relationship between occupational creativity and self-efficacy, self-belief, and productivity in metalworkers in Imo State. Pearson product moment was used to correlate. The study samples 42 metalwork workers from registerd metal related industries. A reliability coefficient of 0.79 was reaslized. The results show a positive correlation between occupational creativity and self-efficacy, self-belief, and productivity of metalwork workers. The findings suggest that occupational creativity plays a crucial role in enhancing self-efficacy, self-belief, and productivity among metalworkers. This study has implications for the development of interventions that promote occupational creativity among metalworkers, which can lead to improved self-efficacy, self-belief, and productivity in the workplace. Recommendetions and further research is needed to explore the specific mechanisms through which occupational creativity influences these outcomes. Overall, this study highlights the importance of occupational creativity in the development of a productive workforce and calls for further attention to be paid to this area in future research and practice.

Keywords: Occupational Creativity, Self-Efficacy, Self-Belief , Productivity Metalworkers

Introduction

Metal contracting industryhave faced so many criticisms across the globe for its inefficiency and lack of productivity, which have been attributed to their fragmented nature of project delivery. Behrens, Pohlabeln, Mester,Langner, Schmeisser& Ahrens (2012) stated that Metalindustries have experienced a paradigm shift to increase productivity, infrastructure value, quality, and sustainability. The reduction of lifecycle costs, lead times, and duplications through effective collaboration and communication between all stakeholders in Metal projects. Hall, Hansen, Olsen, von Ehrenstein, Ritz&Heck (2021) express several initiatives introduced in the Metalindustriesto achieve the much-desired need for continuous improvement in the way the industriesoperate. These range from new contractual/procurement arrangements like partnering, concurrent engineering (Yalams, 2001), and integrated project delivery, (Villaton, 2010) to technological innovations in design and construction processes such as 3D CAD, creative artificial intelligentand modeling in construction (British Columbia Integrated Resource Package (2000). Metal is a key sector of the national economy of nations contributing a big portion to their total employment and revenue generation. These contributions will not go without challenges such as low productivity, poor safety, inferior working conditions, insufficient quality, lack of timely communication and coordination amongst project stakeholders and rising litigation (Ede&Olaitan2010).This hinders the improvement of the Metal industry‘s creativity and production performance.

The Nigerian Metal industry suffers from inefficiency with low productivity and lack of capacity to deliver and satisfy its clients. Kim & Kwon (2017) attributed the drop in the Nigerian Metal industry’s contribution to GDP to poor performance and low productivity. Similarly, Dimkov (2018). asserted that the Nigerian Metal industry

produces nearly 70% of the nation‘s fixed capital formation yet its performance within the economy has been, and continues to be, very low. Therefore, inadequate planning and budgetary provisions, contract sums inflation, inefficient and poor service delivery are product of low creativity in Metal occupations (Miller, Perich& Meade 2019).

Occupation is any activity that an individual engages in with the aim of attracting financial benefits from it. Occupation is regarded as a job or profession people participate or partake in towards earning a living that will sustain such a person. Occupation is specifically the principal business of one’s life; The principal work by which one earn one’s livelihood, through employment in various fields of work. These days people continue to practice their occupation well into their seventies. Equally, occupation is regarded as an activity or task with which one occupies oneself, specifically the productive activities, that would bring an income. Patrick and Sarah (2011) are of the opinion that some occupations are physically demanding and challenging lead to increase rates of disability and mortality. Longer exposures to more physically demanding occupations are associated with increased risks of mortality. (Godart, Seong. & Phillips 2020).There are different types or categories of occupations, such as legal, medical, teaching, mechanical, electrical and driving, among other. In Metalworkers occupation, workers experience different levels of self-efficacy and productivity as a result of their occupations. Therefore, Metaloccupation have its own self-efficacy.

Self-efficacy is a self-evaluation of Metal workers’ capabilities to successfully execute a course of action that is necessary to reach a desired outcome. Metal workers self-efficacy is dependent on performance attainments, knowledge and skills, and comparison to a task. (Godart, Seong & Phillips (2020) defines self-efficacy as the perceived ability to handle the rapidly changing problems due to a difficult situation. The perception of being in control of the situation is often referred to as self-efficacy. Self-efficacy increases, if one is confident about one’s knowledge and skills.Casey& O'Brien (2020). refers to self-efficacy as an individual’s confidence in their ability to complete a task or achieve a goal. Self-efficacy refers to the set of belief an individual holds about the ability to complete a particular task.

Metalworkers self-efficacy has important effects on the number of efforts individuals apply to a given task. Self-efficacy is informed by several sources of information: personal experience, observation, persuasion and emotion. Lin, Hause; &Vartanian (2018). refer to self-efficacy as self-assurance of an individual’s ability and capability to carry out a given task with the hope to achieve his or her purpose for undertaking the given tasks. People identify goals they want to accomplish, things they would like to achieve. Metalworkers self-efficacy is not a personality trait, it is a set of beliefs about the ability to coordinate skills and ability to attain desired goals in particular in Metal construction domains and circumstances (Holm-Hadulla& Hofmann 2012). It is the ability to attain desire goal, show capability and quality of the person in a an industry. Akhtari and Wheeler (2016), further describes Metal Wokersself-efficacy as the optimistic self-belief in competence or chances of successfully accomplishing a task producing a favorable outcome performance. A strong sense of self-efficacy enhances human accomplishment and personal wellbeing in many ways. Metalworkers with high assurance and in their capabilities approach to difficult tasks as challenges to be mastered, rather than as threat to be avoided. Luszczynsk (2005), maintains that Metal Wokers self-efficacy belief as the ability of a

Metal Woker to demonstrate his or her expected behavior in the management of difficult and uncertain task and belief in their competence in dealing with difficult and uncertain task that necessitates special needs. Metal Wokers' self- efficacy beliefs influence individual thought patterns and emotional reactions,MetalWokers with low self-efficacy may believe that things are tougher than they really are, and narrow vision of how best to go about problem ((Holm & Wendt 2020).For effective and efficient production to be achieved, there has to be competent creative and skills Metalworkers, whom have good quality of self- efficacy, and belief to enhance productivity and creativity outcome.

Creativity is the ability to generate original ideas, solutions, or expressions that are novel, valuable, and meaningful. It involves thinking outside the box, making connections between seemingly unrelated concepts, and approaching problems from different perspectives. Creativity can manifest in various domains, such as art, science, technology, literature, music, and more. Runco (2023). stated that Creativity involves producing something new or unique. It may involve combining existing ideas or concepts in innovative ways or generating completely novel ideas. Imagination is a fundamental component of creativity. It allows individuals to envision possibilities beyond what currently exists and explore new thinking. Sun & Okada, (2021)express that creative individuals often demonstrate flexibility in their thinking. They can adapt to new situations, consider different viewpoints, and embrace change and uncertainty. Creativity plays a crucial role in problem-solving. It enables individuals to approach challenges from unconventional angles and find innovative solutions to complex problems Zhou, Wang,Bavato, Tasselli& Wu (2019) stated that creative individuals tend to be open-minded and receptive to new ideas and experiences. They are curious, willing to explore unfamiliar territories, and are not limited by preconceived notions. Widiger&Crego (2019) stated that Creativity often requires perseverance and a willingness to experiment and iterate. Successful creative endeavors may involve multiple attempts, failures, and learning from mistakes. (Mattson, Mathew & Katz 2021). Creativity is often associated with a sense of playfulness, spontaneity, and a willingness to take risks. Playful exploration and experimentation can lead to unexpected and innovative outcomes.(Kasirer&Shnitzer-Meirovich 2021). Therefore, creativity is deeply connected to individuality and self-expression. It allows Metalworkers to share their unique perspectives, productivity and experiences with the world.

Productivity is a measure of the efficiency of a person, machine factory system that converts inputs into useful outputs. Arshad & Malik (2015) states that workers' productivity is an assessment of the efficiency of a worker or group of workers. Productivity is evaluated in terms of the output of a worker in a specific period of time in related development. Bilau, Bustani, Sani&Ijigah (2014)describes employees' productivity as an assessment of the efficiency of a worker orgroup of workers. The productivity of workers is assessed relative to an average for worker doing similar work (Almutairi, Arif&Khalfan2016). The success of any organization relies upon the productivity of its workforce. Productivity according to Awe, Stephenson, & Griffith (2010), is the measure of how well resources are brought together in organizations and utilized for accomplishing a set of result. Productivity is a combination of effectiveness and efficiency, as a matrix of the technical or engineering efficiency of any production. Occupational creativity has a significant relationship on productivity of workers especially in Metal it is against this backdrop the need to determines occupational

creativity as predictor of self-efficacy, self-belief and productivity of metalworkers in Imo State

Statement of the Problem

Metal workers are the daily and fastest growing industry in the world, which many humans depend on. Metalworkers are industries for shelter. These industries are occupied with grounded metals of different made and models, looking for space to be parked and be attended to, and these industries or companies employed able and skilled technologist, mechanics, and competent workers to handle and manage. The Metalworkersare expected to be occupied with different tasks of maintenance and repairs that are sophisticated and complex, despite their complexities, the Metalworkerstried to attend to the faults and fixed them back to life despite these challenges, which retard their efforts and time taking to fix metalworks. Based on that, for the Metalworkers to be productive in his or her occupation, he or she is expected to have self-efficacy and self-belief in an effort to carry out their duty. The workers must be free from stress in their occupation and psychologically satisfied with the work to give maximum productivity in the Metalworkersoccupation industries.

Unfortunately these workers are been faced with problem of occupational disfaction due to various factors, that the self-efficacy and self-belief of the workers are lacking among themselves, such that detecting faults in Metal in response to work place that pose an appraised challenge or threat to that employee, having been occupied with occupational mal-factions, The Metalworkers become confused and begin to lack self-efficacy, and self-capability to successfully execute a course of action that is necessary to reach the desired outcome that would provide effective and efficient services that would promote and enhance their production.

Productivity in Metalworkersindustry is of great concern in terms of construction maintenance of the acquired. Arshad & Malik (2015) state that this has creates the need to determine the relationship among occupational stress, self-efficacy, self-belief and productivity of workers in Metalworkers Occupation. The researcher find it necessary to conduct this study in order to provide empirical evidence that would establish the reality on ground and reduce the amount of damages on occupational creativity as predictor of self-efficacy, self-belief and productivity of metalworkers in Imo State.

Research Questions

The following research questions guided the study:

1. What is the relationship between occupational creativity and Self-efficacy of workers in Metalworkers industry?
2. What is the relationship between occupational creativity and productivity of workers in Metal industry?
3. What is the relationship between self efficacy and Productivity of workers in Metal industry?
4. What is the relationship among experinces in occupational creativity, self-efficacy, self-belief and productivity of metalworkers

Methodology

The study adopted a correlational research design and was conducted in Imo State, Nigeria. The study sampled 42 metalwork workers from registerd metal related industries. Three experts validated the instrument in the Department of Industrial Technical Education, University of Nigeria, Nsukka. A structured questionnaire was used as instrument for data collection. Cronbach alpha reliability method was used to determine the internal consistency of the questionnaire items and a reliability coefficient of 0.79 was obtaimed. Pearson Product moment correlation method was used to analyse data for answering research questions.

Table 1: Bivariate Correlation between Occupational Creativity and Self Efficacy of metalworkers in Imo State.

Correlations

		Occupational Creativity	Self Efficacy
Occupational Creativity	Pearson Correlation	1	.697**
	Sig. (2-tailed)		.000
	Sum of Squares and Cross-products	1465.071	1231.786
	Covariance	35.733	30.044
	N	42	42
Self Efficacy	Pearson Correlation	.697**	1
	Sig. (2-tailed)	.000	
	Sum of Squares and Cross-products	1231.786	2132.976
	Covariance	30.044	52.024
	N	42	42

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

Table 1; bivariate analysis The analysis of two variables simultaneously, for the purpose of determining the empirical relationship between occupational creativity and Self-efficacy of workers. The construction the computation of a simple correlation coefficient of bivariate analyses is.697** which shows positive correlation

Table 2: Bivariate Correlation between occupational creativity and productivity of workers in Metal industry

Correlations

		Occupational Creativity	Productivity
Occupational Creativity	Pearson Correlation	1	.175
	Sig. (2-tailed)		.268
	Sum of Squares and Cross-products	1465.071	232.643
	Covariance	35.733	5.674
	N	42	42
Productivity	Pearson Correlation	.175	1
	Sig. (2-tailed)	.268	
	Sum of Squares and Cross-products	232.643	1206.119
	Covariance	5.674	29.418
	N	42	42

Table 2; bivariate analysis The analysis of two variables simultaneously, for the purpose of determining the empirical relationship between occupational creativity and Productivityof workers. The construction the computation of a simple correlation coefficient of bivariate analyses is .175which shows positive correlation

Table 3: Bivariate Correlation between self efficacyand Productivity of workers in Metal industry

Correlations

		Productivity	SelfEfficacy
Productivity	Pearson Correlation	1	.341*
	Sig. (2-tailed)		.027
	Sum of Squares and Cross-products	1206.119	547.405
	Covariance	29.418	13.351
	N	42	42
SelfEfficacy	Pearson Correlation	.341*	1
	Sig. (2-tailed)	.027	
	Sum of Squares and Cross-products	547.405	2132.976
	Covariance	13.351	52.024
	N	42	42

*. Correlation is significant at the 0.05 level (2-tailed).

Table 3; bivariate analysis The analysis of two variables simultaneously, for the pur of determining the empirical relationship between Productivityand Self-Efficacy of workers. The construction the computation of a simple correlation coefficient of bivariate analyses is .341* which shows positive correlation

Table 4

Bivariate Correlation between experinces and occupational creativity, self-efficacy, self-belief and productivity of metalworkers

Correlations

		SelfEfficacy	Productivity	OccupationalCreativity	[illegible]
SelfEfficacy	Pearson Correlation	1	.341*	.697**	.011
	Sig. (2-tailed)		.027	.000	.946
	Sum of Squares and Cross-products	2132.976	547.405	1231.786	2.548
	Covariance	52.024	13.351	30.044	.062
	N	42	42	42	42
Productivity	Pearson Correlation	.341*	1	.175	-.024
	Sig. (2-tailed)	.027		.268	.879
	Sum of Squares and Cross-products	547.405	1206.119	232.643	-4.310
	Covariance	13.351	29.418	5.674	-.105
	N	42	42	42	42
OccupationalCreativity	Pearson Correlation	.697**	.175	1	.188
	Sig. (2-tailed)	.000	.268		.234

	Sum of Squares and Cross-products	1231.786	232.643	1465.071	36.929
	Covariance	30.044	5.674	35.733	.901
	N	42	42	42	42
Year of experience: 1-5 years | | 6-10years | | 11-15 years	Pearson Correlation	.011	-.024	.188	1
	Sig. (2-tailed)	.946	.879	.234	
	Sum of Squares and Cross-products	2.548	-4.310	36.929	26.405
	Covariance	.062	-.105	.901	.644
	N	42	42	42	42

*. Correlation is significant at the 0.05 level (2-tailed).
**. Correlation is significant at the 0.01 level (2-tailed).

Table 4; Bivariate analysis.The analysis of two variables simultaneously, for the purpose of determining the empirical relationship among SelfEfficacyOccupationalCreativity, Productivity and Year of experience: 1-5 years 6-10years 11-15 years of workers. The construction the computation of a simple correlation coefficient of bivariate analyses is .011which shows negetive correlation

Discussion of Findings

The findings suggest that occupational creativity plays a crucial role in enhancing self-efficacy, self-belief, and productivity among metalworkers. This study has implications for the development of interventions that promote occupational creativity among metalworkers, which can lead to improved self-efficacy, self-belief, and productivity in the workplace.

Recommendetions

1. Further research is needed to explore the specific mechanisms through which occupational creativity influences these outcomes.
2. Overall, this study highlights the importance of occupational creativity in the development of a productive workforce and
3. The study calls for further attention to be paid to this area in future research and practice.

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