# Psychological Empowerment Moderates between Work Engagement and Turnover Intention of Electro-Mechanical Technologists in Universities in South East, Nigeria

by

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**Abstract**

*The study investigated psychological empowerment moderation on work engagement and turnover intention of electro-mechanical technologists in universities in south east, Nigeria. Four research questions guided the study while three hypotheses formulated were tested at 0.05 level of significance. The study adopted a correlational research design and the population for the study was 89 electro-mechanical technologists. The instrument for data collection was psychological empowerment, work engagement and turnover intention of electro-mechanical technologists Questionnaire (PEMWETIQ). The instrument was face-validated by three Experts. The internal consistency of the questionnaire items was determined using Cronbach alpha reliability method and the overall reliability coefficient of 0.91 was obtained. Data collected were analysed using Pearson product moment correlation method to answer research questions while linear and multiple regression analysis were conducted to test all the hypotheses. The findings of the study revealed that (i) relationship exists between psychological empowerment and work engagement of electro-mechanical technologists, (ii) relationship exists between psychological empowerment and turnover intention of electro-mechanical technologists, (iii) relationship exists between work engagement and turnover intention of electro-mechanical technologists, and (iv) psychological empowerment moderates between work engagement and turnover intention of electro-mechanical technologists. Recommendations include that psychological empowerment of electro-mechanical technologists in Nigerian universities should be improved through workshop and seminars.*

**Keywords:** turnover Intention, empowerment, workers, engagement, organisations

## Introduction

Electrical and mechanical technologists play a significant role in improving technical education in Nigerian Universities. A university is an institution of higher (or tertiary) education and research which awards academic degrees in several academic disciplines (Lowe & Yasuhara, 2013). Universities are academic organisations and degree awarding institutions responsible for admitting, training and graduating students after meeting laid down requirements for graduation. Universities, as important sources of knowledge, technology and skilled human capital, can provide valuable ideas and support to new industries and are engaged in innovation and entrepreneurship dynamics through third mission activities (Ranga, Temel, Murat Ar, Yesilay & Sukan, 2016). Nigerian universities are charged to teach, carry out community service and to conduct research (Ogbuanya & Bakare, 2017) in which the findings could be used to solve societal problems. Universities typically offer both undergraduate and postgraduate programmes in different schools or faculties of learning. Technologists help in training undergraduate

and postgraduate technical education students

Technical education in Nigerian universities is a training programme developed to equip students with technical knowledge and skills, and attitudes for employment in the society. Technical education further emphasizes the understanding and practical application of basic principles of science and mathematics, rather than the attainment of proficiency in manual skills that is properly the concern of vocational education. Technical education in most Nigerian universities has the following optional areas or areas of specialisation: automobile technology, building technology, electrical/electronic technology, metalwork technology and woodwork technology. Students of technical education are trained in these optional areas to acquire technical knowledge and skills for employment after graduation. This study covers automobile/metalwork technology also known as mechanical technology, and electrical/electronic technology.

Electrical/electronic technology education is a programme of study which prepares students for career related to design, development, maintenance and installation of electrical/electronic equipment and appliances (Federal Republic of Nigeria, FRN, 2013). Electrical/electronic technology according to Wang and Fu (2014), is an aspect of technical education programme which inculcates in students basic knowledge, of theory and principles of electrical/electronic and practical ability needed for the design, installation, and maintenance of electrical/electronic systems found in residential, commercial, and industrial facilities. Electrical/electronic technology is a field where students are trained to design, develop, construct, maintain and repair all kinds of electrical/electronic gadgets, appliances or equipment for human comfort using appropriate materials, tools, equipment and procedures (Yekinni, 2021). Electrical/electronic technology students offer some courses in mechanical technology area of technical education. Mechanical technology is an integration of two different areas of specialization of technical education; automobile and metalwork technology. Automobile Technology is a programme developed to equip students with knowledge, skills and attitudes in automobile maintenance, repairs and troubleshooting while metalwork technology equips students with skills and knowledge in forming, cutting, joining and machining among others (Kanife, 2021). Furthermore, on grounds of visible similarities in automobile technology and metalwork technology; some institutions of higher learning offering technical education prefer the integration of these areas for convenience's sake. It is worthy to note that mechanical technology is an integral part of Technical Education which was introduced into the Nigerian education system because of the awareness of its importance and opportunities for jobs creation in different areas like welding, sheet metalwork, engine repairs, bodywork scaffolding (Elisha, 2014; Lemo & Olakotan 2017). Automobile Technology students are individuals expected to acquire necessary knowledge and skills to test, diagnose service and completely repair any fault found on an automobile to the manufacturer's specification (Wright, 2006). Students are trained by lecturers and technologists to acquire necessary knowledge and skills for employment after graduation.

A technologist in Nigerian universities is the person employed to work closely with lecturers in an area of specialization to conduct and involve students in a real practical work so that these students can acquire practical skills for either paid or self employment after graduation. Technologists who help in training students in electrical/electronic and mechanical technology areas of technical education are called in this study, electro-mechanical technologists. These technologists are capable of carrying out maintenance work, repair, construction of electrical/electronic and metallic objects for use by members of society. Electro-mechanical technologists are professionals, who design, develop, test, produce and operate electrical and electronic equipment, systems and mechanical machines (Electrical/ electronic Technologist

and Technician Association, 2021). The practical contents of electrical/electronic and mechanical technology are taught to students by electro-mechanical technologists. These technologists are also responsible for the implementation of practical contents of various courses in different technical academic programmes such as undergraduate, Masters and Ph. D degrees using available facilities and resources.

For electro-mechanical technologists to meet up with their expectations there are some qualities they must possess and psychological empowerment (PE) is one of the qualities. Electro-mechanical technologists need psychological empowerment to feel that they have power and control on the work that they are responsible for. Empowerment is defined as the opportunity an individual has for autonomy, choice, responsibility, and participation in decision making in organizations (Meng & Sun, 2019; Kwanghyun & Soyeon, 2016). Psychological empowerment is an intrinsic task motivation reflecting a sense of self-control in relation to one's work and an active engagement with one's work role (Scott, Gang & Stephen, 2011). Some researchers also believed that psychological empowerment is a combination of four cognitive components: a sense of impact, competence, meaningfulness, and choice (Meng & Sun, 2019; Nawawi, Hussain, Ramli, Sulaiman & Razali, 2015). Psychological empowerment was a predictor of work engagement (Bhatnagar, 2012). Employees with high psychological empowerment demonstrate satisfaction and intention to stay in the organization (Islam, Munawar & Bukhari, 2015; Griffeth, Hom, & Gartner, 2000; Meyerson & Kline, 2008; Nawawi, Hussain, Ramli, Sulaiman & Razali, 2015) and show more positive performance (Meyerson & Kline, 2008). Generally, employees with high psychological empowerment have positive thoughts about their work that ultimately affects employee satisfaction, loyalty, performance, how they deliver services, organizational citizenship behaviour, employee retention and or low turnover intention (Bester, Stander, and Van Zyl, 2015).

Turnover is defined as the worker movement across the membership boundary of an organization. Intentions are a statement about a specific behaviour of interest (Chaubey, Maithel & Gupta, 2020). Turnover is one of the most researched phenomena in organizational behaviour. The turnover intention attracts interest due to its psychological dimension, its organizational significance, and its economic dimension (Chaubey, Maithel & Gupta, 2020). Employee turnover had become one of the counter-productive behaviors and an obstacle for the company (Landy & Conte, 2013). Literature explained high turnover rate would reduce productivity (Aamodt, 2010), work-climate (Ferguson, 1986) and company internal stability (Landy & Conte, 2013). Turnover behavior can be predicted through turnover intentions. Turnover intention (TI) according to Lee and Chen (2012) is the tendency of voluntary employee withdrawal, terminating the term of the employment contract, leaving the company and looking for other job opportunities after occupying a certain position. Islam et al. (2015) in his research proved that turnover intention directly and indirectly affected by psychological empowerment. Another study by Nawawi, Hussain, Ramli, Sulaiman, & Razali (2015) showed that there was a negative relationship between psychological empowerment with turnover intention within the company. When employees feel they mean something to the company, it will strengthen them to stay in the company (Ajeng & Arum, 2017). Based on description above, psychological empowerment could be a potential key to decrease turnover intention, increase work engagement of electro-mechanical technologists in Nigerian universities.

Work engagement refers to a positive, affective-motivational state of high energy combined with high levels of dedication and a strong focus on work (Schaufeli & Bakker, 2010; Bakker &

Albrecht, 2018). Accordingly, work engagement is most likely when workers such as electro-mechanical technologists are confronted with high challenges, and have sufficient job and personal resources available to deal with these challenges (Bakker & Sanz-Vergel, 2013; Tadic *et al.*, 2015). Electro-mechanical technologists who are engaged in their work have high levels of energy, are enthusiastic about their work, and are completely immersed in their work activities. It is highly desirable for contemporary public and private organizations and universities to have engaged employees because engagement has been shown to coincide with high levels of creativity, task performance, organizational citizenship behavior, and client satisfaction (Bakker & Demerouti, 2014). Data on psychological empowerment, work engagement and turnover intention of electro-mechanical technologists are not available, and there is need for such data to take lasting decision that will help improve work engagement and turnover intention of electro-mechanical technologists

**Statement of the Problem**

Electro-mechanical technologists in technical education programmes play a vital role, they are expected to train and deliver practical contents to students so that they can acquire relevant skills in addition to knowledge acquired from the classroom. These technologists are so important in this programme; however, universities are losing these experienced individuals to other professions within and outside the university system. Some prefer to joint academic as lecturers while some also check out of the universities to take up jobs in other locations outside the universities system and this development is reducing the numbers of experienced technologists within technical education programme. The work engagement of the electro-mechanical technologists that are still in the programme is low and this can be seen in how they handle the works and the quality of graduates the help produce. The quality of teaching and graduates producing from technical education from various universities is low and these graduates could not secure employment because of lack of technical skills and knowledge required.

In addition, despite growing attention to empowerment in the organisational studies literature, the lack of a theoretically derived measure of psychological empowerment in a work context has deterred substantive research on empowerment. Researchers also have not made precious attempts to measure psychological empowerment with a work context in mind limiting the resultant measures' usefulness in organisational research. Furthermore, there are no direct and specific reliable and validated instruments to measure constructs such as turnover intentions, work effort, work engagement and psychological empowerment of electrical/electronic technology lecturers in Nigerian universities hence this study.

Various studies have been conducted to show the effect of psychological empowerment on various constructs but there is still paucity of information and empirical data on the influence of PE on WE, and TI of electro-mechanical technologists of Nigerian universities.

**Purpose of the Study**

The purpose of the study was to investigate whether psychological empowerment moderate between work engagement turnover intention of electro-mechanical technologists in universities in south east Nigeria. Specifically, the study determined the:

1. relationship between psychological empowerment and work engagement of electro-mechanical technologists
2. relationship between psychological empowerment and turnover intention of electro-mechanical technologists
3. relationship between work engagement and turnover intention of electro-mechanical technologists
4. moderating role of psychological empowerment in the relationship between work engagement and turnover of electro-mechanical technologists

**Research Questions**

The following research questions guided the study:

1. What is the relationship between psychological empowerment and work engagement of electro-mechanical technologists?
2. What is the relationship between psychological empowerment and turnover intention of electro-mechanical technologists?
3. What is the relationship between work engagement and turnover intention of electro-mechanical technologists

**Hypotheses**

The following null hypotheses were tested at 0.05 level of significance:

1. There is no positive relationship between psychological empowerment and work engagement of electro-mechanical technologists
2. Significant relationship does not exist between psychological empowerment and turnover intention of electro-mechanical technologists
3. Significant relationship does not exist between work engagement and turnover intention of electro-mechanical technologists
4. Psychological empowerment moderates the relationship between work engagement and turnover intention of electro-mechanical technologists

**Methodology**

The study adopted correlational design. This design is used to demonstrate the relationship between two variables (Kumar, 2012) under actual conditions or without manipulation of the variables involved (Faenkel & Wallen, 2008). Correlational research design was found appropriate for this study because it established the relationship among variables such as psychological empowerment, work engagement and turnover intention of electro-mechanical technologists

The study was carried out in both State and Federal Universities in South Eastern Part of Nigeria, which comprised five States to include: Abia, Anambra, Ebonyi, Enugu and Imo States. This study was carried out in this area because every state has both state and federal universities where electro-mechanical technologists are employed to teach practical contents of electrical/electronic and mechanical technology courses to students. These universities also have reasonable numbers of electro-mechanical technologists that capable of responding to the questionnaire items.

The population for the study was 89 Electro-mechanical technologists in Abia State University, Michael Okpara University, Nnamdi Azikiwe University, Anambra State Univerity, Ebonyi State University, University of Nigeria, Enugu State University of Science and Technology, and Imo State University. There was no sampling because of the manageable size of the technologists.

The instrument for data collection was Psychological Empowerment moderates Work Engagement and Turnover Intention of Electro-mechanical Technologists Questionnaire (PEMWETIQ). The sections of the PEMWETIQ were adapted; Gretechen (1995) psychological empowerment scale; Wilmar and Arnold (2019) Utrecht work engagement scale and Xuebing (2020) turnover intention scale. The entire questionnaire was made up of two parts A and B. Part A focused on demographic information such as age, gender and locations of electro-mechanical technologists while part B consisted four sections with 54 items to cover psychological empowerment, work engagement and turnover intention of electro-mechanical technologists. Items in part B are further structured into five response options of: Strongly Agree (SA), Agree (A), Undecided (UD), Disagree (D), and Strongly Disagree (SD) with corresponding values of 5, 4, 3, 2 and 1 in seeking the opinions of the electro-mechanical technologists on their psychological empowerment, work engagement and turnover intention.

The instrument for data collection was face-validated by three experts. The experts were provided with the original

scales that were adapted to enable them to authenticate and suggest the level of adaptations made in them. Two of the experts were Lecturers in the Electrical/Electronic Technology Unit of the Department of Industrial Technical Education, while one was in Automobile/Metalwork Technology Unit of the same Department of Industrial Technical Education, Faculty of Vocational and Technical Education, University of Nigeria, Nsukka. At initial stage, the instrument contained 60 items but during validation, the items were reduced to 54 items. The researcher made sure that the observations and suggestions made by the experts were strictly incorporated to improve the final copy of the PEMWETIQ

Cronbach alpha reliability method was used to determine the internal consistency of the questionnaire items. In order to determine this, twenty copies of the instrument were administered on electrical/electronic technology lecturers in the Universities in South South States which were not part of the study area. The reliability coefficients obtained for the parts of the PEMWETIQ were: psychological empowerment scale – 0.88; work engagement scale - 0.83; turnover intention scale -0.88. The overall reliability coefficient of the questionnaire was 0.91. The copies of the PEMWETIQ were administered on electro-mechanical technologists with the help of five research assistants who know the terrain of the study area. The research assistants were assigned one per State. These research assistants administered 89 copies of the PEMWETIQ on the respondents and collected them back after one week of administration. Out of 89 copies of the questionnaire administered, 85 copies were collected back represented 95.50 percent return rate.

Data for answering research questions were analysed by using Pearson product moment correlation method while simple linear and multiple regression analysis were conducted to test all the null hypotheses. The responses to the items were interpreted by describing the strength of the correlation using the guide suggested by Evan (1996) for the absolute value of r as follows: Very weak Relationship = ± 0.00-0.19; Weak Relationship = ± 0.20-0.39; Moderate Relationship = ± 0.40-0.59; Strong Relationship = ± 0.60-0.79; Very Strong Relationship = ± 0.80-1.00.

**Results**

**Research Question 1**

What is the relationship between psychological empowerment and work engagement of electro-mechanical technologists?

Data for answering research question 1 and for testing hypothesis one is presented in Table 1

**Table 1: Correlation between Psychological Empowerment and Work Engagement of Electro-mechanical Technologists**

| Variables | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
|---|---|---|---|---|---|---|---|---|---|
| 1.Meaning | 1 | | | | | | | | |
| 2.Competence | -.286 | 1 | | | | | | | |
| 3.Self determination | .413 | -.413 | 1 | | | | | | |
| 4.Impact | .170 | -.312 | .125 | 1 | | | | | |
| **5.Overall Psychological empowerment** | .668* | -.124 | .708* | .567 | 1 | | | | |
| 6.Vigor work engagement | .244 | -.366 | .498 | .387 | .478 | 1 | | | |
| 7.Dedication work engagement | -.148 | .230 | .380 | .091 | .329 | .562 | 1 | | |
| 8.Absorption work engagement | .317 | -.455 | -.075 | .612 | .228 | .094 | -.565 | 1 | |
| **9.Overall work engagement** | .253 | -.358 | .401 | .693* | .591 | .863** | .451 | .443 | 1 |

The results presented in Table 1 shows the relationship between the different components of psychological empowerment and work engagement of electro-mechanical technologists. The Table also showed the overall relationship between psychological empowerment and work engagement of electro-mechanical technologists. It can be observed that there was a moderate correlation (r = .591) among the psychological empowerment and work engagement of electro-mechanical technologists. On hypothesis one, it is observed in the Table 1 that correlation coefficient value was positive .591 which indicated that positive relationship exists between psychological empowerment and work engagement of electro-mechanical technologists. The hypothesis stated is therefore rejected. The positive relationship indicates that the two variables move in the same direction.

**Research Question 2**

What is the relationship between psychological empowerment and turnover intention of electro-mechanical Technologists?

Data for answering research question 2 are presented in Table 2

**Table 2: Correlation between psychological empowerment and turnover intention of Electro-mechanical Technologists**

| Variables | 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|---|
| 1.Meaning | 1 | | | | | |
| 2.Competence | -.286 | 1 | | | | |
| 3.Self determination | .413 | -.413 | 1 | | | |
| 4.Impact | .170 | -.312 | .125 | 1 | | |
| **5.Overall Psychological empowerment** | .668* | -.124 | .708* | .567 | 1 | |
| **6.Turnover intention** | -.362 | -.403 | -.109 | .226 | -.278 | 1 |

The results presented in Table 2 shows the relationship between the different components of psychological empowerment and turnover intention of electro-mechanical technologists. The table also showed the overall relationship between psychological empowerment and turnover intention of electro-mechanical technologists. It can be observed that there was a weak correlation (r = -.278) among the psychological empowerment and turnover intention of electro-mechanical technologists

**Research Question 3**

What is the relationship between work engagement and turnover intention of electro-mechanical Technologists?

Data for answering research question 3 are presented in Table 3

**Table 3: Correlation between Work Engagement and Turnover Intention of Electro-mechanical Technologists**

| Variables | 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|
| 1.Vigor work engagement | 1 | | | | |
| 2.Dedication work engagement | .562 | 1 | | | |
| 3.Absorption work engagement | .094 | -.565 | 1 | | |
| **4.Overall work engagement** | .863** | .451 | .443 | 1 | |
| **5. Turnover intention** | -.333 | -.077 | .129 | -.094 | 1 |

The results presented in Table 3 shows the relationship between the different components of work engagement and turnover intention of electro-mechanical

technologists. The table also showed the overall relationship between work engagement and turnover intention of electro-mechanical technologists. It can be observed that there was a weak correlation (r = -.094) among the work engagement and turnover intention of electro-mechanical technologists.

**Hypothesis 2**

Significant relationship does not exist between psychological empowerment and turnover intention of electro-mechanical technologists

Data for testing hypothesis 3 are presented in Table 4 and 5

**Table 4: Model Summary of Regression Analysis between Psychological Empowerment and Turnover Intention**

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate |
|---|---|---|---|---|
| 1 | .278[a] | .077 | -.038 | 2.063 |

The above table 4 highlights the model summary of Regression analysis between psychological empowerment and turnover intention. The value of coefficient of determination ($R^2$) indicates how much of the variation in the dependent variable (turnover intention) can be explained by the independent variable (psychological empowerment). The table shows that the value of $R^2$is .077 which means that 7.7% variation in turnover intention is explained by psychological empowerment.

**Table 5: ANOVA Summary on the Relationship between Psychological Empowerment and Turnover Intention of Electro-mechanical Technologists**

| Model | Sum of Squares | Df | Mean Square | F | Sig. |
|---|---|---|---|---|---|
| 1 | Regression | 2.859 | 1 | 2.859 | .672 |
| | Residual | 34.041 | 8 | 4.255 | |

Table 5 above showed that the psychological empowerment and turnover intention of electro-mechanical technologists is not significantly related, the value of p=.672 therefore p>0.05. Therefore, the null hypothesis which states that significant relationship does not exist between psychological empowerment and turnover intention of electro-mechanical technologists is accepted.

**Hypothesis 3**

Significant relationship does not exist between work engagement and turnover intentions of electro-mechanical technologists

Data for testing hypothesis 3 are presented in Table 6 and 7

**Table 6: Model Summary of Regression Analysis between work Engagement and Turnover Intention of Electro-mechanical Technologists**

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate |
|---|---|---|---|---|
| 1 | .094[a] | .009 | -.115 | 2.138 |

Table 6 highlights the model summary of Regression analysis between work engagement and turnover intention of electro-mechanical technologists. The value of coefficient of determination ($R^2$) indicates how much of the variation in the dependent variable (turnover intention) can be explained by the independent variable (work engagement). The table shows that the value of $R^2$is .009 which means that 9.0% variation in turnover intention is explained by work engagement.

**Table 7: ANOVA Summary on the Relationship between Work Engagement and Turnover Intention of Electro-mechanical Technologists**

| Model | Sum of Squares | Df | Mean Square | F | Sig. |
|---|---|---|---|---|---|
| 1 | .329 | 1 | .329 | .072 | .795 |
| | 36.571 | 8 | 4.571 | | |
| | 36.900 | 9 | | | |

Table 7 above showed that the work engagement and turnover intention of of electro-mechanical technologists is not significantly related, the value of p=.795 therefore p>0.05. Therefore, the null hypothesis which states that significant relationship does not exist between work engagement and turnover intentions of electro-mechanical technologists is accepted.

**Hypothesis 4**

Psychological empowerment moderates between work engagement and turnover intention of of electro-mechanical technologists

Data for testing hypothesis 4 are presented in Table 8

**Table 8: Moderation analysis of psychological empowerment between work engagement and turnover intention of of electro-mechanical technologists**

| Model | Coeff | Se | T | P | LLCI | ULCI |
|---|---|---|---|---|---|---|
| **Constants** | 29.2869 | 2.8725 | 10.1955 | .0000 | 22.7865 | 35.7873 |
| **PE** | -.3581 | .5314 | -.6740 | .0000 | -1.5606 | .8444 |
| **TI** | -.0097 | .5708 | -.0170 | .0008 | -1.3014 | 1.2819 |
| **Int_1** | .0621 | .1032 | .6021 | .0001 | -.1714 | .2956 |

The moderation effect was tested using Hayes PROCESS macro (Model 1). Table 8 shows the interaction term was statistically significant (b = .0621; SE= .1032; p = .0001) in our model, indicating that psychological empowerment was a significant moderator of the relationship between turnover intention and work engagement of electro-mechanical technologists. The relationship between turnover intention and work engagement on psychological empowerment was negative and significant (b = -.3581, SE = .5314, p = .0000), conditional on psychological empowerment = 0; the conditional effect of psychological empowerment was negative and significant (b = -.0097, SE = .5708, p < .008).

**Discussion of findings**

The findings of the study also reveal that positive moderate correlation exists between psychological empowerment and work engagement of electro-mechanical technologists. This finding agreed with the findings of Meng and Sun (2019) who examined the role of psychological empowerment on the work engagement of university faculty members in China and the implications for both faculty members and university administrators and found that psychological empowerment was positively correlated with all the dimensions of work engagement of faculty members. This finding agreed with the opinion of Scott, Gang and Stephen (2011) that every worker is supposed to posses' high level of psychological empowerment which is an intrinsic task motivation reflecting a sense of self-control in relation to one's work and an active engagement with one's work role. Some researchers also believed that psychological empowerment is a combination of four cognitive components: a sense of impact, competence, meaningfulness, and choice that one must have to actively engage witht his/her work (Meng and Sun, 2019; Nawawi, Hussain, Ramli, Sulaiman & Razali, 2015). The

findings were in consonance with the findings of Meng & Sun (2019) who found high levels of Psychological empowerment and work engagement among faculty staff of universities. In their study, it was shown that the positive role of psychological empowerment in work engagement was mainly realized through two dimensions: meaning and competence. The study results revealed significant group differences in the PES and UWES scores among university faculty members. Universities should give more support to younger and junior faculty. There is highly positive correlation between psychological empowerment and work engagement (Bakker and Sanz-Vergel, 2013; Tadic *et al.*, 2015).

The findings also revealed that weak relationship exists between psychological empowerment and turnover intention of electro-mechanical technologists and this finding agreed with the findings of Ajeng and Arum (2017) who carried out a study to investigate the influence of psychological empowerment on turnover intention through appreciative inquiry workshop for employee at Division X Company X and found that psychological empowerment has a significant correlation to turnover intention of employees. This finding agreed with the finding of Kim, Han and Park (2019) who conducted research on the roles of work engagement as a mediator between job and personal resources and employees' outcomes, namely job performance and turnover intention, specifically focusing on testing the essentiality of work engagement.

A weak relationship exists between work engagement and turnover intention of electro-mechanical technologists in Nigerian universities. The findings of the agreed with submission of Bakker and Demerouti (2014) that level of work engagement of individuals sometimes dictates their turnover intentions and other constructs. The authors further stated that it is highly desirable for contemporary public and private organizations and universities to have engaged employees because engagement has been shown to coincide with high levels of creativity, task performance, organizational citizenship behavior, and client satisfaction. The finding of the study also agreed with the finding of Egesimba Uzoma Stephen (2022) that a relationship exists between work engagement and turnover intention of electrical/electronic technology in Nigerian universities

**Conclusion**

Electro-mechanical technologists are employed to teach practical contents of electrical/electronic and automobile/metalwork technology courses to students in Nigerian universities where the students are expected to acquire knowledge, technical skills and attitudes for paid and self employment after graduation; but literature and researchers show that they hardly do that after graduation. It seems as if the level of psychological empowerment, work engagement and turnover intention of electro-mechanical technologists is low and there is need for investigation into this situation. This study was then carried out in order to generate data to justify acclaimed situation among electro-mechanical technologists in Nigerian universities in south eastern states of Nigeria. The study was then carried out to investigate how psychological empowerment can moderate between work engagement and turnover intention of electro-mechanical technologists in Universities in South East, Nigeria. Relationship exists among psychological empowerment, work engagement and turnover intention of electro-mechanical technologists. Psychological empowerment significantly moderated the relationship between turnover intention and work engagement of electro-mechanical technologists.

**Recommendations**

Based on the findings made and the conclusion drawn, the following recommendations were made:

1. Psychological empowerment of electro-mechanical technologists in Nigerian universities should be improved through workshop and seminars

2. The work engagement, and psychological empowerment levels of electro-mechanical technologists should be improved through workshops and seminars

3. Attractive benefits should be earmarked for the experienced electro-mechanical technologists in technical education programmes as this may encourage them to stay as technologists

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