

Psychological Empowerment and Engagement in Income Generating Activities among Rural Women in Yobe State, Nigeria

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Abstract: Poverty is a universal phenomenon that affects both developed and the developing nations. This has become predominant obstacle in Africa particularly among women in rural communities in Nigeria. It is therefore necessary to adopt a measure through engagement in income generating activities so as to fight against poverty for a better livelihood. The current study attempts to determine the relationship between psychological empowerment and engagement in income generating activities among rural women in Yobe state, Nigeria. Self-administered questionnaire was used to collect data from 262 participants who were purposively selected. The result from structural equation modeling indicates significant contribution (42%) of psychological empowerment to engagement. Findings from this study show that all the four dimensions of psychological empowerment namely; meaningfulness, self-determination, competence and impact significantly contributes to rural women engagement. However there is need to consider the personality aspect of these rural women so as to boost their morale towards engagement.

Keywords:Engagement; Income generating activities; Psychological Empowerment, Rural women

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I. INTRODUCTION

There seems to be an increasing concern across the globe by Governmental, non-governmental organizations, and World Bank on various policies over the engagement of rural women in income generating activities so as to address rural poverty both in terms of reduction strategies as well as generally as part of the policies to promote rural advancement. Empirical studies on engagement are emerging globally, thus in North America [1, 2], Europe [3, 4] Asia [5] and South Africa [6]. Regardless of the rapid manner in which advancement is witnessed in most developing countries, poverty still remains predominantly a rural phenomenon [7]. In Africa and indeed in Nigeria, it was evident that poverty is rampant in rural areas than in urban areas, and women are affected much [8]. The majority of the poor lives in rural areas, with severity of destitution far greater than in urban areas. These trends are expected to persist in the predictable future. Sanda Zannah, [9] asserts that, 70% of the world's poor people live in rural areas in developing countries. Their livelihoods usually depend either directly or indirectly on agriculture, with women providing more than 40% of the agricultural labor force. This female labor ration ranges from approximately 20% in Latin America to up to 50% in Eastern Asia and Sub-Sahara Africa including Nigeria [10]. Engagement of rural women in developmental activities is facing a serious challenge in several developing countries, for example in Tanzania [11], Iran [12], and India [13-15].

Thus, the aim of this study is to determine the relationship between psychological empowerment and engagement in income generating activities among rural women in Yobe state, Nigeria. Specifically, the objective of the study are as follows: (a) to identify the level of psychological empowerment (meaningfulness, self-determination, competence and impact) and engagement of rural in IGAs, (b) to determine the relationship between psychological empowerment and engagement of rural women in IGAs, (c) to determine the effect of psychological empowerment on engagement among rural women in IGAs.

II. RELATED LITERATURE

2.1 Empowerment

The concept of empowerment has emerged in recent years as an element with important implications for occupational health and organizational effectiveness for businesses. Empowerment refers to the sense of control and dominance that individuals have over the employment context [16]. Psychological empowerment involves what workers' beliefs regarding the meaning of their work, their ability to perform their job well, their autonomy and sense of self-determination [17]. Empowerment of women is a development strategy and commitment of women which recognizes their contributions and knowledge as the first step. To fight their social inadequacy and fears, women need to enhance their self-respect and dignity [18].

III. PSYCHOLOGICAL EMPOWERMENT

Psychological empowerment is defined as a motivational concept of self-efficacy [18]. According to Thomas and Velthouse [19] psychological empowerment is multifaceted and therefore it cannot be captured by a single concept thus, they broadly defined psychological empowerment as increased intrinsic task motivation manifested in a set of four cognitions reflecting an individual's orientation to his or her work role. These cognitions include: meaning, competence, self-determination and impact. Furthermore, Spreitzer [20] also argued that these four cognitions combine together to create an overall construct of psychological empowerment. Hence lack of any single dimension will decrease, but will not completely eradicate, the overall amount of the empowerment felt [21].

3.1 Meaning

Meaning is the value of a work goal or purpose, judged in relation to an individual's own ideals or standards [20]. Meaning involves a fit between the requirements of a work role and beliefs, values, and behaviors [22]. Meaningfulness refers to a sense of perseverance and personal connection to the activity [23]. Empowered people have the feeling of importance attached to their activities they care about [24]. The rural women attach values to the activities they engaged on.

3.2 Self-determination

Self-determination is an individual's sense of having choice in initiating and regulating actions [25]. Self-determination reflects autonomy in the initiation and continuation of work behaviors and processes; examples are making decisions about work methods, pace, and effort [26]. Self-determination refers to a sense of freedom about how individuals do their activity [23]. The feelings of being autonomous by the rural women is a good motivator towards their engagement in IGAs

3.3 Competence

Competence, or self-efficacy, is the belief in one's capability to perform activities with skill [27]. Competence is comparable to action beliefs, personal mastery, or effort-performance expectancy [28]. This dimension is labeled competence here rather than self-esteem because it focused on efficacy specific to a work role rather than on global efficacy. Competence is the belief that one has the necessary skills in carrying out his/her activity very well [23].

3.4 Impact

Impact is the degree to which an individual can influence strategic, administrative, or operating outcomes at work [29]. Impact is the converse of learned helplessness [30]. Impact is a belief that individual can influence the system in which they are entrenched [22]. According to Quinn and Spreitzer [24], impact is the feelings of accomplishment one has on achieving his/her goals. The belief that these rural women have by judging their confidence on their capabilities in handling situations that would otherwise be intimidating will make them engage in IGAs [23].

Therefore, psychological empowerment is defined as a motivational construct manifested in four cognitions: meaning, competence, self-determination, and impact. Together, these four cognitions reflect an active, rather than a passive, orientation to a work role. Stander and Rothmann [31] analyzed the relationship psychological empowerment, and work engagement, results showed that psychological empowerment related positively to work engagement. Similarly, Bhatnagar [32] explored the links between psychological empowerment and engagement; she found that psychological empowerment foster engagement.

IV. ENGAGEMENTS IN INCOME GENERATING ACTIVITIES

Engagement is defined as a positive attitude and energy intrinsically felt and exhibited by individual towards performance of his/her work role [33]. Engaging in income generating activities benefits both the individual and the context. Thus, it is associated with other positive outcomes of individual development, such

as skill acquisition and social competencies, and with societal benefit, that contributes to the greater wellbeing [34].

Studies that are empirical have indicated that engagement is related to numerous positive behaviors and significances for both organization and employees [35]. Engagement refers to a completely, fulfilled state of the mind that is described by vigor, dedication and absorption [36]. What constitutes the characteristics of vigor are mental resilience and high levels of energy while working, how willing one will make effort in a work and perseverance in time of difficulty. Dedication expresses ones' commitment, inspiration, and sense of significance, pride, challenge and enthusiasm. Absorption explains ones' happiness with his work and feel time is running quickly and would be difficult to detached from his or her work, which shows higher concentration in the job [37].

Whenever individuals engaged themselves in a work, they feel that their work is what they will be committed to by devoting enough time and vigorous efforts as an important and meaningful quest which have their complete dedication as well as adequately absorbing to have full concentration and be attentive. Engaged individuals commit themselves to whatever they do by fully devoting their heads, hearts, and hands in an effort to perform their role [38]. Engagement is characterized by commitment and focus, and a study has found that engaged individuals perform better and are innovative in their work [39]. Engagement outcomes generally improves performance, better financial returns (generates greater income) to rural women's engagement [40].

V. RELATIONSHIP BETWEEN MEANINGFULNESS AND ENGAGEMENT

Work roles and actions that are aligned and associated with individuals' self-concepts should be associated with more meaningful work experiences. Empowered individuals derive a greater sense of meaning from their work [41]. The restoration of meaning in work is seen as a method to foster an individual's motivation and attachment to work, thus resulting in engagement [42]. The fear of losing a job contributes to work engagement if individuals experience a meaningful work [31]. Thus, opportunities to meaningful work stimulates individual to attach to their work resulting to engagement [42]. In a South African study, Olivier and Rothmann [42] confirmed that psychological meaningfulness predict engagement.

Individuals working on complex and demanding tasks are expected to have higher levels of intrinsic motivation than working on relatively simple and routine tasks [43]. The perception of a significant and profitable condition of a task results to individual engagement in carrying out the assigned roles there by spending more time and efforts towards carrying out their responsibilities ([44]. In a related study it was confirmed that psychological meaningfulness predicts engagement [45].

The feelings of meaningfulness by rural women participants of IGAs will trigger their engagement towards the activities. As they perceived that this program is significant in income generating, in anticipation to be self-reliant poor rural women engage in the activities which will help them to generate income and contribute to their family wellbeing. Thus, it is expected that meaning dimension of psychological empowerment to be positively related to engagement. Therefore hypothesize;

H1: Meaning dimension of psychological empowerment is positively related to Engagement in IGAs

5.1 Relationship between Self-determination and Engagement

Self-determination are self-endorsed goals that enhance individuals' internalized autonomy which resulted to engagement [46]. Self-determination was described as "an individual's sense of having choice in imitating and regulating action" [47]. Self-determination leads to 'greater flexibility, creativity, initiative, resilience and self-regulation' [19]. When an individual has a certain degree of autonomy and can shape desired outcomes through his or her behaviors, the individual is likely to focus on an idea or a problem longer and more persistently [20]. It is clear from the empowerment literature that participation in decision making and perceptions of autonomy are vital antecedents for engagement outcomes [48]. A sense of possession and control over own work may make individuals feel more responsible for developing creative ideas in order to solve problems, stimulate to take risks, explore new cognitive pathways that relates to higher levels of intrinsic motivation, higher degrees of interest in work, flexibility and increased persistence of behavior change leading to engagement [43].

Therefore, rural women can be empowered to promote the feelings of self-determination which will subsequently boost their level of engagement to improve their potentials in having control over their own lives. Consequently, self-determination to these women is the ability to build self-confidence regarding changes in their life in relation to their self-evaluation as a persons of some worth in building self-confidence which is linked to beliefs about capabilities to manage circumstances and special tasks. It is therefore expected that self-determination will be positively related to individual engagement. Based on the above, the following hypothesis formulated;

H2: Self-determination dimension of psychological empowerment is positively related with Engagement.

5.2 Relationship between Competence and Engagement

Research has shown that feeling competent and confident with respect to valued goals is associated with enhanced intrinsic motivation and well-being [46]. Engaged individuals see themselves as able to deal completely with the demands of their work (self-efficacy). Llorens, Salonova, Bakker & Schaufeli, [49] found a strong correlation between self-efficacy and confidence in one's ability and engagement. The higher an individual's level of self-efficacy, the more committed to achieve difficult goals and the more persistent to succeed. They also exhibit initiative, high effort, and persistence when they encountered difficulties [50], a necessary trait in engagement process. On the other hand, Morrison and Phelps [51] found that self-efficacy was positively related to taking charge at work (an important extra role behavior) and individuals with higher levels of self-efficacy are likely to receive expanded role expectations from their supervisors. Individuals who are the most skilled and competent at the technical aspects of work are the most likely to broaden their roles and engage in expanded work. Competence has a strong effect on individual self-evaluation and self-confidence. Moreover, studies have revealed that engagement in organized extracurricular activities has been associated with higher self-esteem [52]. Thus, it is expected that competence dimension of psychological empowerment will be positively related to individual engagement. Thus, the following hypothesis formulated;

H3: Competence dimension of psychological empowerment is positively related with Engagement in IGAs

5.3 Relationship between Impact and Engagement

Impact implies to an involvement and individuals feeling of contributing towards a goal achievement or making a difference through their involvement [53]. Impact implies a sense of progression towards a goal and individuals' belief that their actions will help achieve the systems goal which contributes to their engagement. Impact is seen as control over one's environment or the belief that his/her actions are influencing the system [19]. When employees believe they have influence on organizational processes through their involvement, they are more likely to put effort and energy into generating, promoting, and realizing creative ideas for innovation than when they feel they are unlikely to make a difference due to a lack of impact [54]. As such, this sense of having some control over the outcomes of work processes differentiates between impact and other aspects of empowerment distinguished in the literature such as competence and self-determination [20].

In sum, before engaging in an innovative and creative activity willingly, rural women may need to feel that they have the power to influence their activities, its processes and the environments in a meaningful way. That is, for rural women to be engaged they have to move towards autonomy and be able to decide on their own. As pointed out by Midgley [55] IGAs can be complementary processes that increases the women's knowledge, self-esteem, power of decision making, self-confidence and by widening their social networks which gives them the tools and skills they need to engage more effectively and successfully in formal activities and to informally influence decisions and policies that affect their lives. Hence, it is expected that impact dimension of psychological empowerment to be positively related to engagement. Accordingly the following hypothesis stated;

H4: Impact dimension of psychological empowerment is positively related with Engagement in IGAs

VI. METHODOLOGY

6.1 Research Design

This study employed survey design with quantitative approach as the researcher chose to determine the relationships between the dependent and independent variables. The study employed cross – sectional research design since data was collected in a single point at a given time [56-58]. Survey technique is used through which data is collected using structured questionnaire. A correlational analysis is design to examine the relationship between the quantitative variables in the study [59].

6.2 Population and Sampling Technique

The target population of the study is rural women participants in income generating activities organized by the State Ministry of Women Affairs (MWA), in Damaturu, Yobe State, Nigeria. The study covers the beneficiaries of the program 2016 to 2017. According to ministry of women affairs report, there are 450 rural women beneficiaries from the IGAs in the year 2016/2017. There are 90, 103, 57, 86 and 114 participants in each of the 5 classes respectively, so the population of this research was obtained by adding the total number of participants in all the classes making 450 participants.

Cochran [60], formula adopted for this study to determine an appropriate sample size for the study. The larger the sample size the more it is a representation of the population and, the better the degree of accuracy in generalization and data analysis [61]. Total sample size used by the researcher was 311. Therefore, proportionate sampling was adopted by the researcher in order to get the percentages and samples of each Income Generating Project Classes (IGP) in the ministry.

6.3 Measurement of Variables

In the current study, the entire variables were measured using the 5- point Likert scale, ranging from 1 (strongly disagree) to 5 (strongly agree) based on the previous works of Amin and Khan and Al – Sardia and Ahmad [62] based on Babbie, [63] the researcher chose the appropriate measurement. TABLE 1 depicts the instrumentation and measurement while TABLE 2 shows the number of items in each variable. There are three variables in this study.

Table 1: Instrumentation and measurement

Scale	Items	Variables	Source literature	Cronbach's alpha (a) pre-test
Meaningfulness	3	Meaningfulness	Spreitzer (1995)	.72
Self-determination	3	Self-determination		.84
Competence	3	competence		.90
Impact	3	impact		.96
UWES 9	6	Vigor	Schaufeli	.86
	5	Dedication	Bakker and	.82
	6	Absorption	Salanova, (2002)	.83
With child 4 years or less		Family life stage	Trout, (2010)	
Without child 4 years or less				
Total	31			

Table 2 Name and Number of Items and Type of Variables

No	Name of variables	Number of Items	Type of variables
1	Meaningfulness	3	Independent
2	Self-determination	3	Independent
3	Competence	3	Independent
4	Impact	3	Independent
5	Vigor	6	Dependent
6	Dedication	5	Dependent
7	Absorption	6	Dependent
Total		29	

VII. STATISTICAL ANALYSES

In this research, the gathered data were coded and entered into the computer using SPSS (Version-22.0). Exploratory Data Analysis (EDA) and Structural Equation Modelling (SEM) analysis were conducted to achieve the specific research objectives.

7.1 Exploratory Data Analysis

Data examination or exploratory data analysis (EDA) is a necessary preliminary step in any statistical analysis, therefore this study used Exploratory Data Analysis to determine the statistical test suitable for the data. An alpha level of 0.05 significant was set for all the statistical tests. Inferential statistical analyses were

used and Structural Equation Modeling (SEM) was used to determine the relationship between the independent variables and the dependent variables.

7.2 Confirmatory Factor Analysis (CFA)

In order to further validate the measurement model of the latent constructs, confirmatory Factor Analysis (CFA) was applied with the aid of computer software (AMOS-SPSS version 22.0). The CFA method has the ability to assess the convergent validity and construct reliability. Validity is the degree to which an instrument measures what it is supposed to measure [64]. Hair et al., [65] explained that validity is the extent of which a scale or set of measures accurately represents the concept of interest. One of the most important validity tests using CFA is the construct validity which comprises of convergent validity and discriminant validity.

7.3 Convergent Validity and Construct Reliability using Measurement Model

According to Kline [66] convergent validity is a set of items (indicators) that presume to measure a given construct. It can be measured through testing the Average Variance Extracted (AVE) which Fornell and Larcker [67] defined as a high AVE ≥ 0.5 indicates a high convergent validity. While Hair et al. [65] argued that convergent validity should be tested by assessing factor loading of the individual items in which a high factor loading of ≥ 0.5 of each construct indicates a high convergent validity of that particular construct and any construct below that should be cut off from the latent variable. While Construct Reliability (CR) on the other hand, refers to a measure of the reliability of the constructs involved [65]. As recommended by the rule of thumb, a reliability estimate of greater than .7 suggests good reliability. However, Hair et al. [65] suggested that, reliability between .6 and .7 may be accepted. High CR is an indication of internal consistency which means that the measures are consistent in representing the latent constructs for which they measure.

Therefore, “Fig” 2 below depicts the Modified Measurement Model of the study after some adjustment has been made from Proposed Measurement Model on “Fig”1. The Fit indices of the Modified Measurement Model were as follows; Chi-Square (χ^2) = 228.079 (df = 77), $p = .000$, Relative χ^2 (χ^2/df) = 2.962, AGFI = .851, GFI = .905, CFI = .945, IFI = .945, NFI, .920 TLI = .925, RMSEA = .087. From these Goodness-of-Fit indices, the researcher conclude that the Measurement Model fits the data because, Hair et al. [65] suggested that, if any 3 – 4 of the Goodness-of-Fit indices meets the requirement, then the model is acceptable as measurement model or structural model. Below are the measurement models.

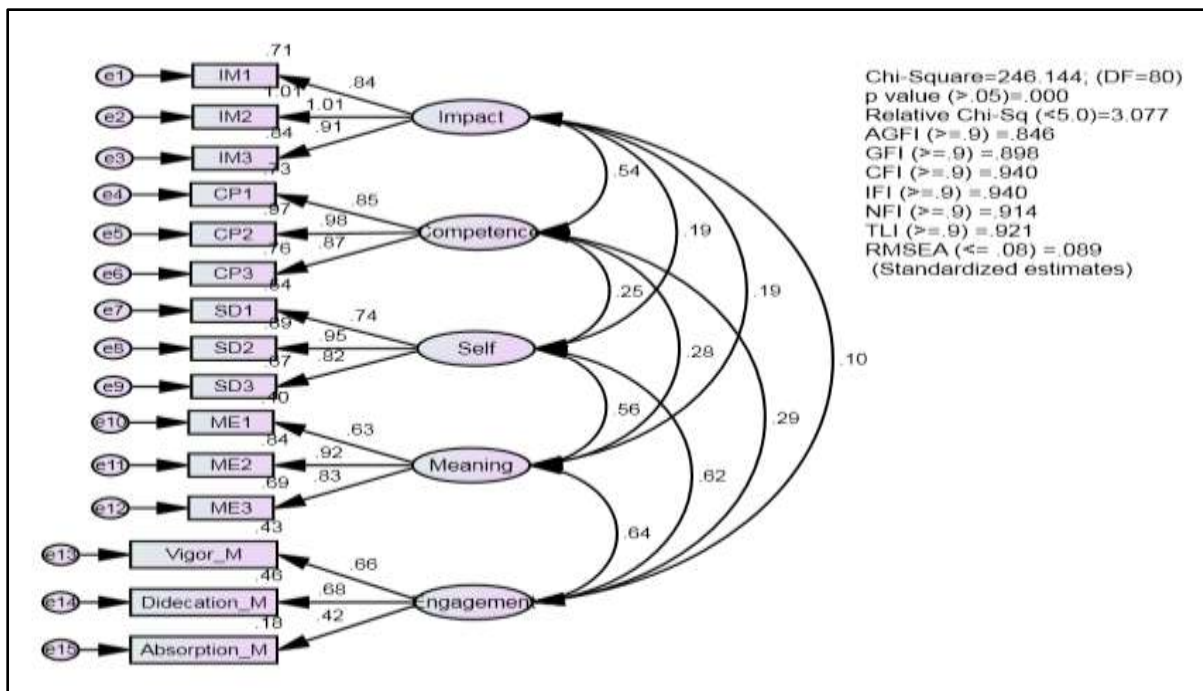


Figure: 1Proposed Measurement Model

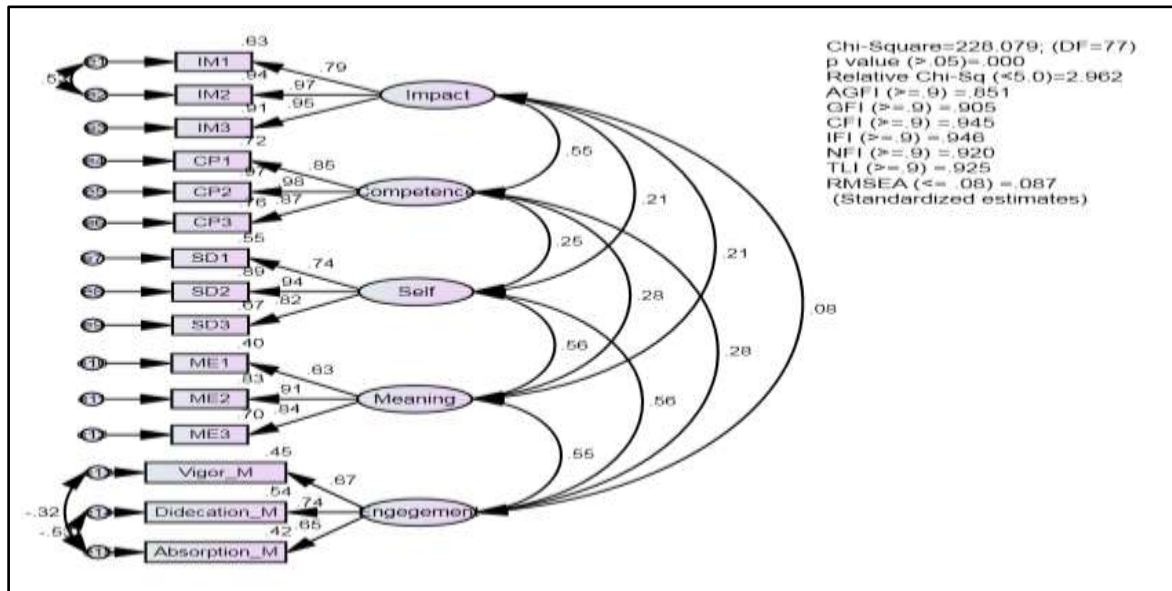


Figure: 2 Modified Measurement Model

Therefore, in this study CFA was used to test the Convergent Validity and Construct Reliability of the individual constructs in the research questionnaire based on the idea of the above mentioned scholars, that is, by assessing the factor loadings, Average Variance Extracted (AVE) and Construct Reliability (CR). Therefore, TABLE 3 below illustrates the first and second order CFAs of the construct’s items based on the proposed measurement model and modified measurement model respectively. That is, the proposed measurement model was modified to improve the Goodness of Fit Indices and the Average Variance Extracted (AVEs) and Construct Reliability (CRs) were also calculated. Thus, only the second order CFAs were reported because it is the model that has the better Goodness of Fit Indices. As shown in TABLE 3 below, all the independent constructs i.e. Impact (Impact), Competence (Competence), self – Determination (Self) and Meaningfulness (Meaning) has 3 items each and after the first order CFA all their respective 3 items were retained with AVEs ranged between .644 and .823; and CRs between .841 and .932. While the dependent variable (engagement) has 3 dimensions which were later parceled to become the items with AVE of .473 and CR of .729

Table: Error! No text of specified style in document..Convergent Validity and Construct Reliability using Confirmatory Factor Analysis (CFA)

CONSTRUCTS	ITEMS	Factor Loading \square 0.5		AVE \square .5	CR \square .7
		1 st Round CFA	2 nd Round CFA		
Impact (Impact)				.823	.932
	IM 1	.84	.79		
	IM 2	1.01	.97		
	IM 3	.91	.95		
Competence (Competence)				.813	.929
	CP 1	.85	.85		
	CP 2	.98	.98		
	CP 3	.87	.87		
Self - Determination (Self)				.708	.878
	SD 1	.74	.74		
	SD 2	.95	.95		
	SD 3	.82	.82		
Meaningfulness (Meaning)				.644	.841
	ME 1	.63	.63		
	ME 2	.95	.91		
	ME 3	.83	.84		
Engagement (Engagement)				.473	.729

Vigor_M	.66	.67
Dedicatio	.68	.74
n_M		
Absorptio	.42	.65
n_M		

7.5 Discriminant Validity

According to Zait and Berteau [68] testing for discriminant validity can be done using one of the following methods: O-sorting, chi-square difference test and the Average Variance Extracted (AVE) analysis. In this study, the discriminant validity was tested using AVE in which, the AVEs were tested to see if the of every AVE value belonging to each latent construct is much larger than any squared correlation among any pair of latent constructs. This is in line with Byrne [69] that, AVE for the two factors must be greater than their “r²”; which means, AVE measures the explained variance of the construct. When comparing AVE with the squared correlation coefficient, we actually want to see if the items of the construct explain more variance than do the items of the other constructs. In this regard, TABLE4 presented the correlation matrix of the relationship between all the constructs, and then TABLE5 illustrates Average Variance Extracted (on the Diagonal) and Squared Correlation (on the Off – Diagonal) between variables for comparison between the AVEs and the squared correlation. In line with Byrne [69], the AVEs of the constructs are greater than the squared correlation of the constructs as well.

Table: 4. Correlation Matrix of independent variables and Engagement

Variables	Y	X ₁	X ₂	X ₃	X ₄
Y (Engagement)	1				
X ₁ (Meaningfulness)	.547**	1			
X ₂ (Self – determination)	.558**	.565**	1		
X ₃ (Competence)	.280**	.282**	.249**	1	
X ₄ (Impact)	.079	.207*	.209*	.552**	1

Table: 5. Average Variance Extracted (on the Diagonal) and Squared Correlation (on the Off – Diagonal) Between Variables

Variables	Y	X ₁	X ₂	X ₃	X ₄
Y (Engagement)	.473				
X ₁ (Meaningfulness)	.299	.644			
X ₂ (Self – determination)	.311	.319	.708		
X ₃ (Competence)	.078	.080	.062	.813	
X ₄ (Impact)	.006	.043	.044	.305	.823

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

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

To further validate the measurement model of the latent construct, Confirmatory Factor Analysis (CFA) was conducted with the aid of computer software (AMOS-SPSS version 22) as validating procedure. The CFA method has the ability to assess the Unidimensionality, construct validity, convergent validity, discriminant validity and Reliability of a latent construct.

The unidimensionality is achieved when all measuring items have acceptable factor loadings with positive signs for the latent construct. For newly developed items the factor loading for every item should exceed 0.5 [70]. Construct Validity; the construct validity is achieved when the Fitness Indexes of a measurement model achieved the required level of acceptance [71]. The fitness indexes indicate how fit is the items in measuring their respective latent constructs. Standardized factor loadings (standardized regression weights) for each item were identified after the final measurement model was constructed to meet the criteria fitness indexes. Nine items (ATD1, ATD2, ADT3, ATD5, ATD6, ATD7, ATD8, ATD9 and ATD10) with factor loading of <0.6 were retained. Although not all fitness indices have been achieved, but most of the other indices have shown a significantly good fit for the measurement model (RMSEA=.116, chi square (104.5, DF= 25), CMINDF= 4.178, CFI =.919, IFI=.920, GFI=.913). The model fitness obtained indicated the satisfaction of assumption of construct validity.

Convergent Validity; this is assessed and verified by computing the Average Variance Extracted (AVE) for the construct. The AVE is a summary measure of convergent among items and acceptable if the value of AVE > 0.5 [70]. TABLE 5 showed AVE value computed (0.521), indicating that the construct has adequate convergence. Discriminant Validity; this validity indicates the measurement model of a construct is free from redundant items. Using AMOS software, it helps to identify the items redundancy in the model through a discrepancy measure called Modification Indices (MI). High value of MI (>15) indicates the respective items are redundant [70]. However, all MI values obtained were less than 15, indicating that the condition for discriminant validity is achieved.

Reliability; Reliability is the extent of how reliable the said measurement model is, in measuring the intended latent construct. Two criteria for assessing reliability are Cronbach's alpha value and the composite reliability (CR). The reliability analysis showed that the total Cronbach's alpha value (.882) of the model (TABLE 3) indicates a high level of internal consistency, and the composite reliability computed was 0.886.

7.6 Content validity

The content validity of an instrument can be checked by giving the questionnaire to someone (Judge) that can render an intellectual judgment on the adequacy of the content as whether or not it is appropriate [71]. To ensure content validity the questionnaire is checked by panel of experts from University Putra Malaysia in the person of Prof. Dr Aminah Ahmad and Associate Prof. Dr Siti Zobidah Omar then the organizing department of income generating activities under the Ministry of Women Affairs Damaturu has evaluate the instruction, items, format and their comments were considered.

VIII. RESULT

Measurement Model was used to determine the relationship between independent variable i.e. meaningfulness, self – determination, competence and impact; and the dependent variable i.e. engagement. Besides, the Measurement Model analysis, TABLE 4 shows the correlation matrix for the analysis of the relationships between the study variables.

H1: There is a significant relationship between meaningfulness and engagement among rural women in IGAs.

The Pearson correlation analysis was conducted to examine the relationship between meaningfulness and engagement. The results indicate that, there is a significantly moderate and positive relationship between meaningfulness of the activities and engagement in IGAs ($r = .547, p < .05$) so, *H1* is supported. This indicated that, the higher the meaningfulness, the higher the engagement. This finding is in line with [72, 73, and 42] that, meaningful work foster motivation there by resulting in engagement. A significant and profitable job results in engagement where by activity roles are carried out keenly [44].

H2: There is a significant relationship between self-determination and engagement among rural women in IGAs TABLE4 presents the Pearson correlation analysis of self-determination and engagement. The results show that there is a significantly moderate and positive relationship between self-determination and engagement ($r = .558, p < .05$) thus, *H2* is supported. The result indicates greater engagement in IGAs is associated with greater self-determination. In a related study it was confirmed that, a degree of independence can shape results as individuals will concentrate more on their roles if were autonomous [74, 20].

H3: There is a significant relationship between competence and engagement among rural women in IGAs. TABLE4 revealed that, there is a significant low and positive relationship between competence and engagement ($r = .530, p < .01$) therefore, *H3* is supported. The results indicates the higher the competence, the greater the engagement among the rural women in IGAs due to the direct relationship between the two constructs.

H4: There is a significant relationship between impact and engagement among rural women in IGAs.

However, the Pearson correlation analysis in TABLE 4 shows that, there is no significant relationship between impact and engagement ($r = .079, p > .05$), so, *H4* is not supported. In line with the proposed hypothesis in respect to this relationship, the result suggested that there is no significant relationship between impact and engagement.

8.1 The Effect of Psychological Empowerment (Meaningfulness, Self-Determination, Competence, and Impact) on Engagement among Rural Women in IGAs

The proposed factor expected to have effect on engagement are dimensions of psychological empowerment namely; impact, competence, self – determination and meaningfulness. Therefore, the Structural Model in "Fig"3 below consists of four predicting constructs in relation to one criterion construct. According to Hair et al., [65] if any 3 or 4 of the Fit indices are within the threshold then the entire model is fit, therefore, based on this reason the Structural Model for this study fits the data. So, the proposed hypothesis H_A is

supported. Moreover, the Structural Model also indicated that, 42% of variances in engagement was explained by the predictor variables entered in to the Structural Equation Modeling. Hence, the proposed hypothesis that examines the validity of the model is expressed as follows:

H_A: All independent variables (Meaningfulness, Self-Determination, Competence, and Impact) are significant when regressed against the dependent variable (engagement).

So, Structural Equation Modeling was used to estimate the effect of predictor variables entered into the Structural Equation Modeling in relation to the outcome variable.

8.2 Direct Effect

The analysis of structural equation modeling shows that the fit indices are acceptable, thus indicating that the model fits the data as shown in figure 3 below:

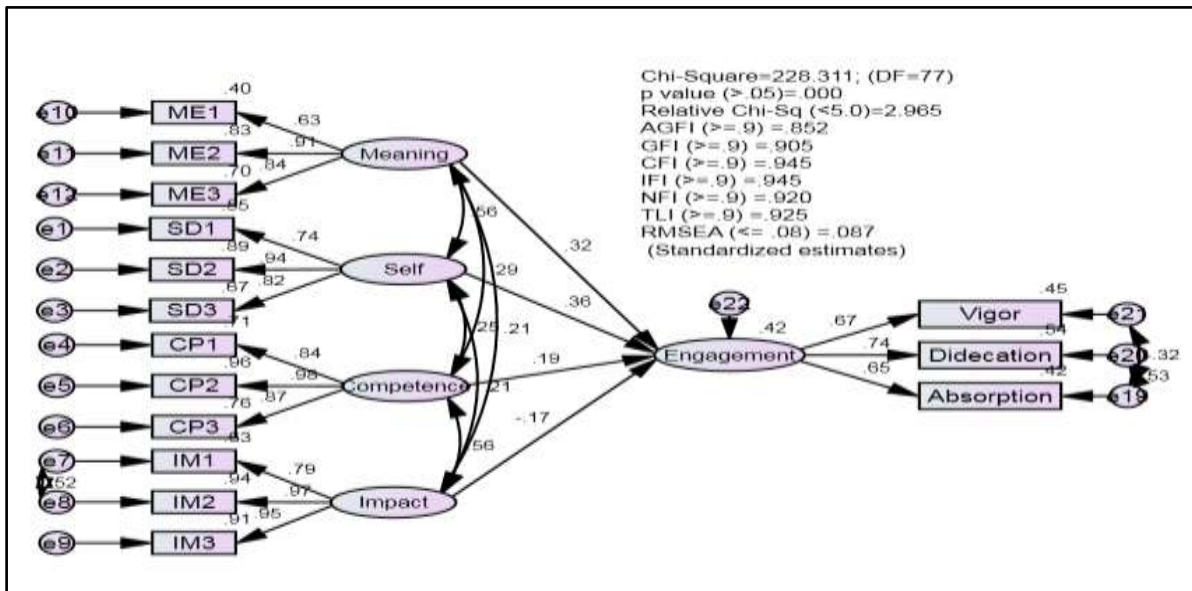


Figure: 3 Model fitness

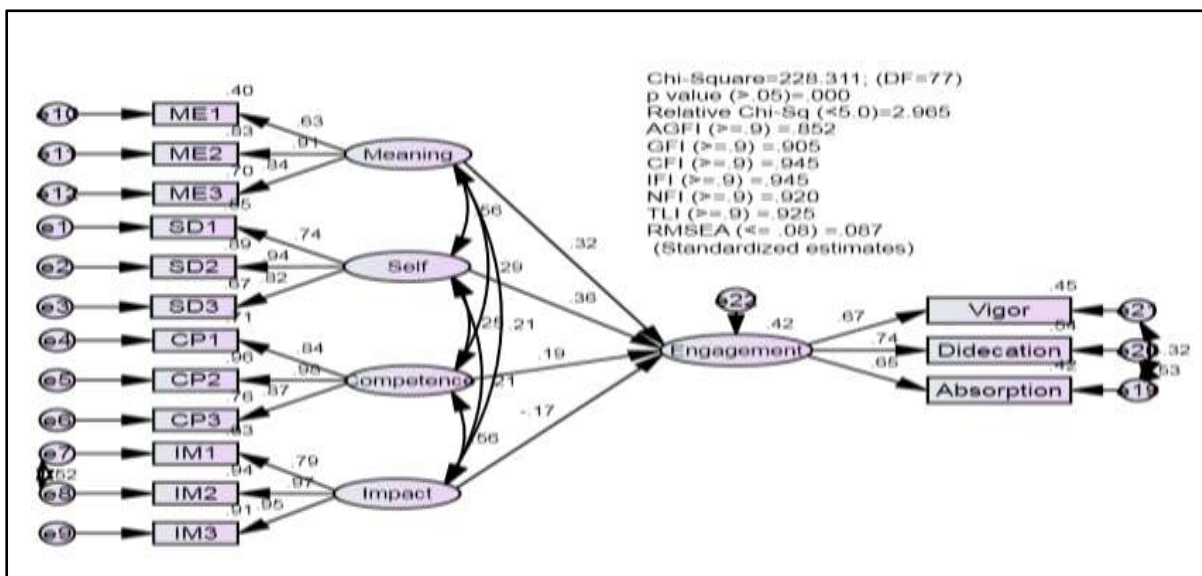


Figure:Error! No text of specified style in document. Structural Equation Model depicting the Effect of Meaningfulness, Self –Determination, Competence and Impact on Engagement

Table: 6. Fit indices for direct model

Model	Chi-Square (χ^2)	Df	χ/df	RMSEA	GFI	IFI	TLI	CFI	AGFI	NFI
Direct	228.11	77	2.96	.08	.71	.95	.93	.95	.85	.92

Moreover, the analysis of Structural Equation Model in TABLE 7 shows that, the standardized path coefficients were consistent with the hypotheses by indicating the significant relationships between predictors and criterion variable.

H_{A1}: Meaningfulness is a significant predictor of engagement.

The Structural Model indicated that meaningfulness dimension of psychological empowerment is significantly related to engagement in IGAs (TABLE 7) ($\beta = .322$, $CR = 3.758$, $p < .05$). Therefore, the proposed hypothesis that the meaningfulness dimension of psychological empowerment significantly predicts engagement in IGAs (H_{A4}) is supported.

H_{A2}: Self-determination is a significant predictor of engagement.

The Structural Model indicated that self-determination dimension of psychological empowerment is significantly related to engagement in IGAs (TABLE7) ($\beta = .364$, $CR = 4.293$, $p < .05$). Therefore, the proposed hypothesis that the self-determination dimension of psychological empowerment significantly predicts engagement in IGAs (H_{A3}) is supported.

H_{A3}: Competence is a significant predictor of engagement.

Similarly, the Structural Model indicated that the competence dimension of psychological empowerment is a significantly related to engagement in IGAs. (TABLE7) ($\beta = .192$, $CR = 2.652$, $p < .05$), therefore, H_{A2} is supported. Therefore the proposed hypothesis that the competence dimension of psychological empowerment significantly predicts engagement in IGAs (H_{A2}) is supported.

H_{A4}: Impact is a significant predictor of engagement.

The structural model revealed that impact dimension of psychological empowerment is significantly related to engagement in IGAs. (TABLE7) ($\beta = -.170$, $CR = -2.412$, $p < .05$). Therefore, the proposed hypothesis (H_{A1}) that impact dimension of psychological empowerment significantly predicts engagement in IGAs is supported.

Table7 Unstandardized and standardized regression weight in the hypothesized path model

Hypothesized relationships			B	S.E	β	CR	p
Engagement	<---	Impact	-.101	.042	-.170	-2.412	.016
Engagement	<---	Competence	.096	.036	.192	2.652	.008
Engagement	<---	Self – determination	.280	.065	.364	4.293	.000
Engagement	<---	Meaningfulness	.279	.074	.322	3.758	.000

R²for Engagement = .42

Note: B:- Unstandardized Regression Weight; S.E:- Standard Error; β :- Standardized Regression Weight; CR:- Critical Ratio; p:- Significant – p.

8.3 Summary of findings

Findings from correlational analysis shows that there is a significant high and positive correlation between meaningfulness and engagement ($r = .547$, $p < .05$) this indicates that, the higher the meaningfulness of the activity to the rural women, the higher their engagement in IGAs; a significant positive and high correlation between self – determination and engagement ($r = .558$, $p < .05$) thus the more autonomous the rural women are the more they are engaged; a significant low and positive correlation between competence and engagement ($r = .530$, $p < .01$). Indicating that, the higher the competence, the higher the engagement among the rural women in IGAs; and lastly there is no significant correlation between impact and engagement ($r = .079$, $p > .05$), indicating that as far as the rural women were not given the chance to have influence on their activities there is little likelihood that they will be strongly engaged in IGAs. These results were in line with several studies [32, 75, and 31].The result also is in line with [72, 73, and 42] Thus, opportunities to empowerment stimulate individuals to be attached to their activities resulting in engagement.

8.3 Discussion, Limitation and future research direction

Based on this study, engagement varies with meaningfulness, self-determination, competence and impact. It is found that meaningfulness is significantly related to engagement, while self-determination, competence and impact indicated a positive relationship. Engagement is seen as vital to rural women development; the study finds that there is significant relationship between meaningfulness, self-determination, competence, impact and engagement. The anticipation of a significant and profitable results leads to engagement, as roles will be keenly carried out by this rural women participants [76, 44]. The study shows a significant high and positive relationship between meaningfulness and engagement. The result also shows significant and positive high relationship between self-determination and engagement, indicating engagement is associated with higher self-determination. On the other hand, competence has a low and positive relationship with engagement, showing the higher the competence, the higher the engagement among rural women in IGAs. Contrarily, impact has no significant relationship with engagement showing that the participants were not all that autonomous or free to control some aspect of the ministry; all activities were controlled at the ministry level.

This study has limitations. The research has investigated a direct relationship between psychological empowerment and engagement in income generating activities among rural women. However, scholars have argued that, relationship between antecedent and outcome may be systematically influenced by other variables which can change the understanding of the nature of the relationship in the model [65]. Another limitation has to do with the scope and the subjects of the study. The study has focused on Yobe state in north eastern Nigeria and studies only rural women in Damaturu, the state capital that are involved in the program. And lastly, the study's findings are from the perspective of the participants only, the roles of the agencies coordinating the programs are not considered. These limitations need to be addressed in future studies. Hence the following are suggested for future research.

Future research need to introduce a framework that is extended by adding intermediating variable to enhance how third construct or variable can give better understanding of the relationship between psychological empowerment and engagement in rural women. Future study can broaden the research to cover substantial part of Nigeria and sub-Sahara Africa considering the scanty studies on influence on engagement of rural women on income generation activities especially in informal settings [77, 44] in Africa. Similarly, such studies should be extended to other categories of people such as young men and women, middle class and urban women to assess the engagement capacity and determining factors in engagement of different categories of people in a community.

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