

Instrument for Testing Organizational Citizenship Behavior among University Lecturers in Nigeria: A Pilot Study

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Abstract

This report is centered upon a pilot research carried out to assess, from a methodological perspective, the mediating effect of self-efficacy on the relationship between work-family conflict, family-work conflict and organizational citizenship behavior among university academicians in Northern Nigeria. The goal of the pilot study was to assess the viability, length of time, cost, and negative consequences of self-efficacy on the long-term survival of OCB among universities in Nigeria with the aim of improving the questionnaire's design before its full implementation. Three experts from Management, Accounting, and Strategic Management carried out an evaluation of the research instrument, with the goal of ensuring that the questionnaires were consistent so that responders would not have problems while filling them out. The exploratory factor analysis (EFA); which checks for reliability, and the Cronbach alpha values, were used to analyze the content and face validity of the instrument, using the statistical package for social sciences (SPSS) Version 26. The model's components and elements used in this study were all derived from earlier research. A sample size of 36 respondents was used in this study. These respondents were drawn from several Universities from across northern Nigeria. According to the data, all of the constructs in the model had a Cronbach alpha value of greater than 0.7. Consequently, all of the instrument's components were kept. This research is vital in contributing to literature on methodological multivariate studies, quantitative OCB research, and university's long-term growth and survival.

Keywords: pilot study, work-family conflict, family-work conflict, organizational citizenship behavior

1. Introduction

The final text of the survey questionnaire was sent to four adept academics who specialized in management and strategic management to assess the instrument for additional appraisal once completed. This was referred to as pre-testing, an essential step in ensuring that the questions developed to extract the needed information in the intended manner were clear and concise (Ramayah, Cheah, Chuah, Ting, & Memon, 2018; Sekaran & Bougie, 2016). A pre-test is basically a small-scale try-out of a specific research unit that includes written or vocal comments. The wordings and design used in the questionnaire were found to be satisfactory during the pre-test that was conducted for this study. Prior to the pilot study, minor alterations were made based on the experts' recommendations (Saunders, Lewis, & Thornhill, 2012). The pilot study is an initiation step. The full study technique is covered, however only a small sample size is used. In order to assess the correctness of the findings, this pilot study used the Exploratory Factor Analysis (EFA) (Pearson, 2008) with SPSS Version 23. The face and content validity of the variables, as well as the measuring items were assessed with the use of the Cronbach alpha. Exploratory Factor Analysis (EFA) is a statistical approach for condensing a large set of observable variables into a small number of "factors/ components" that reflect common clusters (Bento, Gaultney, & Dahlquist, 2020; Hadi, Abdullah, & Sentosa, 2016). As a result, Exploratory Factor Analysis (EFA) is a significantly useful method in determining the link between the measured constructs.

The sample size used for this pilot study was 100 participants. The decision to use 100 Participants was arrived based on findings from previous investigations (Ramayah et al., 2018). Cooper and Schindler (2011) _ENREF_4, for example, stated that a target sample size of 25-100 people is sufficient for carrying out a pilot study incorporating a survey. This was corroborated by Connelly (2008), who stated that the sample size for the pilot study should be 10% of the sample size projected for the main study. Cooper and Schindler (2011), also stated that the intended sample size might be determined by the type of examination undertaken during the evaluation stage,

but Hill (1998), stated the sample size for this pilot study was 100 participants. The choice was based on Isaac and Michael (1995), who stated that a pilot test with 10-30 people is sufficient.

As a result, the survey questionnaire was dispensed to 36 target respondents so as to make certain that the results of the Exploratory Factor Analysis (EFA) were congruous with studies carried out in the past (Gorsuch, 1988; Hair, Black, Babin, & Anderson, 2010; Jung & Lee, 2011; Kline, 2014; Sang et al., 2017; Zainudin, Habsah, Fauzilah, Abu Shams Mohammad, & Kamaruzaman, 2017). The 36 respondents were university lecturers serving with different universities across northeastern Nigeria. The study aimed to collect demographic and background information on these target universities in northeastern Nigeria. Stratified random sampling, mailed survey to be specific, was used to contact the 36 respondents. Their suggestions would assist to clarify how the primary study may be carried out (Kline, 2014).

2. Demography Analysis

The demographic analysis derived from the pilot study was divided into two categories: respondents' profiles and background information about their businesses; their current business status, sub-sector of business, number of hired full-time employees, business unit/ legal status, and basic business assets (exclusive of land and buildings). Gender, responsibilities, age, highest level of qualification, responsibilities, years of service or working experience, and location/area of data collection, were all used to help identify the demographics of the target respondents. The frequency analysis is reported in detail in the tables that follow.

2.1 Demographics of the Respondents

The demography of the respondents is described in the Table below:

Table 1. Which category do you belong to?

Category	Frequency	Percent	Valid percent	Cumulative percent
Gender: Male	31	86.1	86.1	86.1
Female	5	13.9	13.9	100
Total	36	100	100	

Table 1 indicates the gender of the respondents, with 86.1% male and 13.9% female.

Table 2. What is your age?

Category	Frequency	Percent	Valid percent	Cumulative percent
Age: Below 30 years	19	52.8	52.8	52.8
Between 30 – 35 years	11	30.6	30.6	83.2
Above 35 years	6	16.7	16.7	100
Total	36	100	100	

Table 2 shows the age distribution of the target respondents, showing the majority of the respondents are below 30 years and minority fall in the age category above 35 years old. Generally, it can be deduced that majority of the respondents were young lecturers, with 83.2% of them being below 36 years old.

Table 3. What is marital status?

Category	Frequency	Percent	Valid percent	Cumulative percent
Marital Status: Single	19	52.8	52.8	52.8
Married	17	47.2	47.2	100
Total	36	100	100	

Table 3 discussed on the marital status of the respondents. The analysis indicates an almost equivalent number of single respondents (52.8%) and married respondents (47.2%).

Table 4. Which University do you belong to?

Category		Frequency	Percent	Valid percent	Cumulative percent
University:	ATBU	6	16.7	16.7	16.7
	YSU	6	16.7	16.7	33.3
	FUK	6	16.7	16.7	50.0
	MAUTECH	6	16.7	16.7	66.7
	TSU	6	16.7	16.7	83.3
	UNIMAID	6	16.7	16.7	100
Total		36	100	100	

Table 4 stressed on the respondents' universities. The analysis showed an equal number with 16.7%.

Table 5. Which faculty do you belong to?

Category		Frequency	Percent	Valid percent	Cumulative percent
Faculty	Art & Humanity	9	25.0	25.0	25.0
	Education	9	25.0	25.0	50.0
	Science, Engineering & Technology	9	25.0	25.0	75.0
	Social & Management Science	9	25.0	25.0	100

Table 5 indicates respondents based on faculties they belong to. The analysis showed that the respondents were sampled equally, with 25% from each faculty.

Table 6. How long have you been in the University?

Category		Frequency	Percent	Valid percent	Cumulative percent
Experience:	0 – 2 years	9	22.2	22.2	22.2
	3 – 5 years	13	36.1	36.1	58.3
	6 – 10 years	12	33.3	33.3	91.7
	11 above years	3	8.3	8.3	100
Total		36	100	100	

Table 6 indicates the respondents' years of experience in their respective work responsibilities. The descriptive analysis showed that 22.2% of the respondents had 0-2 years of working experience, 36.1% had between 3-5 years of working experience, 33.3% had 6-10 years working experience, and 8.3% of the respondents had 11 years and above working experience. The descriptive analysis indicates that most of the respondents had served for 3-5 years with their respective universities.

Table 7. What is your position/rank in the University?

Category		Frequency	Percent	Valid percent	Cumulative percent
Position/Rank:	Professor	2	5.6	5.6	5.6
	Senior Lecturer	1	2.8	2.8	8.3
	Lecturer	13	36.1	36.1	44.4
	Others	20	55.6	55.6	100
		36	100	100	

Table 7 indicates the position/rank of the respondents who participated in the study. More than half of the respondents which is equivalent to 55.6% were respondents from others (i.e. Graduate assistants, Assistant Lecturers), 36.1% were lecturers, 5.6% were professors, and finally, 2.8% were senior lecturers. The descriptive analysis showed that most of the respondents in the pilot test consists of graduate assistants and assistant lecturers.

3. Findings and Analysis

The instrument's reliability was tested using the Cronbach Alpha value. The initial items in each of the construct were included in the questionnaire adopted in this pilot test as indicated in Table 8 below.

Table 8. Initial Items for each Construct used in the Questionnaire

Type of variable	Construct	No. of item	Source
Independent	Work-family Conflict	4	Netemeyer et al. (1996)
	Family-work Conflict	4	Netemeyer et al. (1996)
Mediation	Self-efficacy	5	Riggs, et al. (1994).
	Organizational citizenship Behavior - organization	6	Williams and Anderson (1991).
Dependent	Organizational Citizenship Behavior - individual	6	Williams and Anderson (1991).

The information presented in Table 8 shows that in 5 constructs, a total of 25 items were used. To test the reliability of the constructs, each constructs' reliability analysis was assessed and their Cronbach Alpha values calculated. Therefore, the results were shown in Table 9.

3.1 Work-family Conflict

Table 9. Reliability Statistics

Cronbach's Alpha	No. item
.953	4

Table 10. Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Correction	Item-Total Squared Multiple Correction	Cronbach's Alpha Item Deleted
WFC1	10.1944	16.104	.889	.794	.936
WFC2	10.0278	14.885	.846	.717	.947
WFC3	10.1111	14.102	.911	.839	.927
WFC4	10.0833	14.821	.892	.808	.932

The construct reliability (CR) for the four items that were used in assessing the respondents' work-family conflict was found to be 0.953, which is above the recommended threshold of 0.7. As such, the constructs were considered to be acceptable. Therefore, no item was deleted.

3.2 Family-work Conflict

Table 11. Reliability Statistics

Cronbach's Alpha	No. item
.948	4

Table 12. Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correction	Squared Multiple Correction	Cronbach's Alpha Item Deleted
FWC1	10.7222	16.263	.871	.761	.933
FWC2	10.7778	14.692	.911	.842	.919
FWC3	10.7778	16.006	.826	.687	.945
FQC4	10.5556	14.997	.890	.818	.926

Table 12 indicates the construct reliability for the four items that were used to assess the respondents' family-work conflict. The descriptive analysis showed alpha value of 0.948, which is above 0.7 threshold. As such, the constructs were considered acceptable. Hence, no item was deleted.

3.3 Self-efficacy

Table 13. Reliability Statistics

Cronbach's Alpha	No. item
.962	5

Table 14. Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Total	Item-Correction	Squared Multiple Correction	Cronbach's Alpha if Item Deleted
SEF1	14.6667	24.629	.917	.885	.948	
SEF2	14.6944	26.275	.895	.815	.953	
SEF3	14.5278	24.599	.889	.819	.954	
SEF4	14.7778	25.378	.914	.852	.949	
SEF5	14.6667	25.943	.851	.766	.959	

Table 14 indicates the construct reliability for the five items that were used to assess the respondents' self-efficacy. The descriptive analysis showed alpha value of 0.962, which is above 0.7 threshold. The constructs were considered acceptable. Hence, no item was deleted.

3.4 Organizational Citizenship Behavior – organization (OCB-O)

Table 15. Reliability Statistics

Cronbach's Alpha	No. item
.962	6

Table 16. Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Total	Item-Correction	Squared Multiple Correction	Cronbach's Alpha if Item Deleted
OCB_O1	19.7500	31.621	.877	.787	.954	
OCB_O2	19.8889	29.987	.898	.841	.951	
OCB_O3	19.6944	30.847	.842	.733	.957	
OCB_O4	19.5556	29.968	.863	.790	.955	
OCB_O5	19.6389	27.837	.905	.834	.951	
OCB_O6	19.3889	29.559	.892	.818	.951	

Table 16 indicates the construct reliability for the six items that were used to assess the respondents' Organizational Citizenship Behavior – Organization (OCB-O). The descriptive analysis showed alpha value of 0.962 which is above the 0.7 threshold. The constructs were considered acceptable. Hence, no item was deleted.

3.5 Organizational Citizenship Behavior – Individual (OCB-I)

Table 17. Reliability Statistics

Cronbach's Alpha	No. item
.952	6

Table 18. Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correction	Squared Multiple Correction	Cronbach's Alpha if Item Deleted
OCB_I1	20.3056	26.275	.871	.785	.940
OCB_I2	20.1944	26.675	.852	.749	.942
OCB_I3	20.1944	26.675	.874	.789	.939
OCB_I4	20.1389	28.352	.804	.713	.947
OCB_I5	20.1667	27.114	.866	.780	.940
OCB_I6	20.1111	27.930	.836	.748	.944

Table 18 indicates the construct reliability for the six items that were used to assess the respondents' organizational citizenship behavior – individual (OCB-I), the descriptive analysis showed alpha value of 0.952 which is above the 0.7 threshold. The constructs were considered acceptable. Hence, no item was deleted.

4. Conclusion

The construct reliability of all the items designed in the questionnaire was rigorously tested using the Cronbach alpha value, as stated and analyzed above. The results showed that all the constructs had an alpha value that was above the 0.7 threshold, indicating that all the items in the questionnaire ought to be kept. The respondents' demographic profiles were derived from their various universities, based on the number of full-time lecturers. Gender, age, marital status, university, faculty, years of experience, and position/rank are factors that were all used to create demographics for the respondents. All of this information has the potential to influence on the outcomes of universities long-term growth in Nigeria. Inexperienced responders with less than 1-year working experience are most likely to face significant obstacles while handling day-to-day activities of the universities to which they all belong.

This pilot project was mainly carried out to determine the viability, length of time, cost, and negative impacts of employing the survey questionnaire for the main study. It also aided in the improvement of the survey questionnaire's design and construction, as it was pre-tested and reviewed by four specialists to ensure that there would not be problems when it was utilized in the main study.

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