

## Predicting Dishonest Academic Behaviours: The Roles of Attitude, Subjective Norms, Perceived Behavioural Control and Moral Obligation

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### ABSTRACT

High incidence of dishonest academic behaviours, such as cheating, plagiarism, and exchange of sex for better grades has become a major concern for stakeholders of the higher education system in Nigeria. This problem has reached a point where public confidence in the integrity and quality of graduates may be eroded. Drawing from Ajzen's (1991) Theory of Planned Behaviour, this study examined the relationships between attitude, subjective norms, perceived behavioural control, moral obligation, and dishonest academic behaviours. Based on a sample of 255 polytechnics students in the Northwest Geopolitical zone of Nigeria, the results showed that attitude, subjective norms, and perceived behavioural control were positively related to dishonest academic behaviours. In addition, moral obligation was found to be significantly and negatively related to dishonest academic behaviours. It is recommended that management of polytechnics can minimize the incidences of dishonest academic behaviours by conducting personality inventory test during admission process to screen out potential candidate whose values accord to that of their institution.

**Keywords:** Dishonest academic behaviours, federal polytechnic, Kaura Namoda, moral obligation, theory of planned behaviour, TETFund Nigeria

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### INTRODUCTION

Dishonest academic behaviours refer to an intentionally fraudulent act that violate significant honour codes and in so doing threaten the well-being of an academic institution, its members, or both (Lambert, Hogan, & Barton, 2003; Robinson & Bennett, 1995). Empirical and anecdotal evidence has demonstrated that dishonest academic behaviours is prevalent across college campuses worldwide (Saidin & Isa, 2013). For example, in an online survey was conducted among 71 students enrolled in a teacher education program at Malaysian university, 82% of the participants have reported that they had cheated before despite being aware of the consequences (Saidin & Isa, 2013). In the same vein, it was reported that about 31% of the Midwestern university students in United States had admitted being involved in online academic dishonesty related practices (Şendağ, Duran, & Robert Fraser, 2012). Specifically, of the 31%, nearly 12% of the students reported using fake materials and references or distorting the original meaning of electronic resource, 9.5% had admitted fabricating information, 8.5% admitted that they claimed research that they did not actually conduct, and more than 1% had admitted sabotaging others' work (Şendağ *et al.*, 2012).

Concerns about the frequency of cheating and dishonest behaviour among Nigerian students of tertiary institutions are a regular topic of media attention (Okoro, 2015; Otokuneforon, 2013; Uzoma, 2015). In particular, in Kwara state, it was reported that the management of one the large polytechnic had expelled 45 students due to different cases of examination malpractices in the year 2012 (Oladunni, 2012). Furthermore, empirical evidence has shown that academic dishonesty has significant, positive impact on workplace dishonesty, because students who engaged in dishonest academic acts at college were more likely to engage in

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deviant acts in the workplace (Nonis & Swift, 2001). Thus, given the prevalent and negative effect of dishonest academic behaviours in Nigerian higher education system, empirical studies are needed to understand the underlying causes of these behaviours.

### *Problem Statement*

Over the past two decades, researchers in the field of educational and organisational psychology have been applying Ajzen's (1991) Theory of Planned Behaviour (TPB) to explain dishonest academic behaviours (Beck & Ajzen, 1991; Harding, Mayhew, Finelli, & Carpenter, 2007; Stone, Jawahar, & Kisamore, 2009). Indeed, attitude, subjective norm, perceived behavioural control have found to be associated with dishonest academic behaviours. However, most of these studies were conducted mainly in western context, including United States and United Kingdom, thereby giving less research attention to developing countries, particularly Nigeria. Hence, this represents the major empirical gap in the literature. To address this gap, it is imperative to replicate and extend the findings of prior research in Nigerian context. Additionally, empirical and anecdotal evidences has demonstrated that dishonest academic behaviours are prevalent across college campuses worldwide (e.g., Rabi, Patton, Fjortoft, & Zgarrick, 2006; Saidin & Isa, 2013). Therefore, the issue of dishonest academic behaviours among students cast doubt on the standard and quality of an institution's academic programme, the value of its certificates, as well as the academic efficacy of its graduates (Simkin & McLeod, 2010; Wideman, 2009). Given that the option of including more variables to the Theory of Planned Behaviour was unequivocally left open by the 'fathers' of the theory (Ajzen, 1991), moral obligation is proposed to be incorporated as additional independent variable in the present study. Thus, the purpose of this study was to examine the influence of attitude, subjective norm, perceived behavioural control and moral obligation on students' dishonest academic behaviours in Nigerian context.

## **LITERATURE REVIEW**

### *Attitude and Dishonest Academic Behaviours*

Attitude refers to "the degree to which a person has a favourable or unfavourable evaluation or appraisal of the behaviour in question" (Ndubisi & Sinti, 2006, p. 17). The relationship between attitude and dishonest academic behaviours has been well established in prior research. For example, Stone, Jawahar, and Kisamore's (2009) showed that attitude toward academic misconduct is positively related misconduct behaviour among university students. Past research has also established further support for the relationship between attitude and academic misconduct, including cheating, plagiarism, and other forms of dishonest academic behaviours (Stone, Jawahar, & Kisamore, 2010). Recently, Rajah-Kanagasabai and Roberts (2015) reported that attitude was positively related to student engagement in research misconduct and questionable research practices. Consistent with past studies, the researchers formulated the following hypothesis:

*Hypothesis 1:* Attitude is positively associated with dishonest academic behaviours.

### *Subjective norms and dishonest academic behaviours*

Subjective norms refer to "perceived social pressure to perform or not to perform the behaviour" in question (Ajzen, 1991, p. 188). Extant research has also established that subjective norms exert a positive influence on dishonest academic behaviours (Alleyne & Phillips, 2011; Imran & Nordin, 2013; Mayhew, Hubbard, Finelli, Harding & Carpenter, 2009; Stone *et al.*, 2009). Given the strong influence of group on individual behaviour, students would engage in dishonest academic behaviours when they are under social pressure to perform such acts. The researchers therefore advanced the postulation:

*Hypothesis 2:* Subjective norm is positively associated with dishonest academic behaviours.

### *Perceived Behavioural Control and Dishonest Academic Behaviours*

Perceived behavioural control is closely related to the self-efficacy construct and it refers to individuals' perceptions regarding their control over performance of behaviour (Ajzen, 1991). A cross-sectional investigation by (Wilson (2008)) found that perceived behavioural control was significant predictor of unethical behaviour among college students. Relatedly, Alleyne and Phillips (2011) found that perceived behavioural control was significant predictor of students' intentions to engage in academic dishonesty behaviours, such as cheating and lying. Relatedly, Chudzicka-Czupala *et al.* (2015) drew from the Theory of Planned Behaviour to explain students' intentions for academic cheating and found that perceived behavioural control predict the likelihood of students to engage in academic dishonesty. Thus, the researchers proposed the following hypothesis:

*Hypothesis 3:* Perceived behavioural control is positively associated with dishonest academic behaviours.

Moral obligation refers to “one’s personal feelings regarding the duty to engage or to refuse to engage in a particular behaviour” (Alleyne & Phillips, 2011, p. 329). As noted above, the researchers are also interested in examining the link between moral obligation and dishonest academic behaviours in the present study. In this regard, the researchers also hypothesized that moral obligation is theoretically related to dishonest academic behaviours. Students who are low in moral obligation tend regulate their behaviour effectively, especially with reference to those behaviours that have negative long-term consequences (Cohen, Panter, Turan, Morse, & Kim, 2014). Thus, they may showcase dishonest academic behaviours for two reasons. First, students who are low in moral tend to have low levels of conscientiousness, low levels of moral identity-internalization and they do not have consideration of future consequences of their actions (Cohen *et al.*, 2014). Second, students who were depleted of their moral resources are more likely to impulsively engage in dishonest academic behaviours than those whose moral resources are intact (Gino, Schweitzer, Mead, & Ariely, 2011). Empirical research by Chudzicka-Czupała *et al.* (2016) also suggests that moral obligation play a significant role in predicting students’ intentions to engage in academic dishonesty in the form of cheating. Relatedly, based on the extended version of the Theory of Planned Behaviour, Alleyne and Phillips (2011) found that moral obligation was significant predictors of students’ intentions to perform academic dishonesty behaviours in the form of cheating and lying. Thus, the researchers proposed the following hypothesis:

*Hypothesis 4:* Moral obligation is negatively associated with dishonest academic behaviours.

## **METHODOLOGY**

### *Participants and Procedure*

Data were collected from polytechnics students in the Northwest Geo-political zone of Nigeria. Three hundred and seventy survey package were given to a number of Research Assistants who helped in administering the questionnaires. The survey package was in a fullscap size envelope with a cover letter, the questionnaire and a pen to motivate the participants in the survey. The cover letter clearly highlights the background and purpose of the study. The cover letter also provides instructions on how to answer and return the questionnaire. To further increase the willingness of the participants to partake in the survey, their anonymity and confidentiality were confirmed in the cover letter.

Overall, within a period of data collection, out of 370 questionnaires distributed to the target participants, 275 questionnaires were returned. Of these 275 questionnaires, 20 were excluded because a significant part of these questionnaires were incomplete; and the remaining 255 useable questionnaires were utilized for further analysis. This accounted for a response rate of 69%. All the 255 usable questionnaires were coded and entered into the SPSS. In addition, all the negatively worded items in the questionnaires were reverse coded. Subsequent to data coding and entry, the following preliminary data analyses were performed: (1) missing value analysis, (2) assessment of outliers, (3) normality test, and (4) multicollinearity test.

### *Measures*

*Attitude toward dishonest academic behaviours.* Attitude dishonest academic behaviours was measured by adapting nine items from the work of Gil, Gracia, and Sánchez (2000). Responses to these nine items were scored using a 7-point Likert scale, ranging from 1= *strongly disagree* to 7 = *strongly agree*. A sample item is: “I strongly feel that dishonest academic behaviours violate significant honour codes”.

*Subjective norms.* Following Trongmateerut and Sweeney (2013), subjective norm about dishonest academic behaviours was measured using five items. These five items were rated based on a 7-point Likert scale, ranging from 1= *strongly disagree* to 7 = *strongly agree*. A sample item is: “My colleagues would strongly approve of my dishonest academic behaviours”.

*Perceived behavioural control.* Perceived behavioural control was measured with a five items scale, which was developed by Smith *et al.* (2007). These items were rated on a 7-point Likert scale, ranging from 1= *strongly disagree* to 7 = *strongly agree*, such that higher rating indicates greater level of perceived control over dishonest academic behaviours. A sample item is: “If I wanted to, it would be easy for me to refrain from dishonest academic behaviours”.

*Moral obligation.* To measure moral obligation, the researchers adapted a three items moral obligation scale, which was developed by Beck and Ajzen (1991). These items were rated on a 7-point Likert scale, ranging from 1= *strongly disagree* to 7 = *strongly agree*, such that higher rating indicates greater level of moral

obligation over dishonest academic behaviours. A sample item is: “Dishonest academic behaviours, such as cheating and lying goes against my principles”.

*Dishonest academic behaviours.* Following McCabe (2003), as well as Bennett and Robinson (2000), the researchers designed thirteen items considered to be dishonest academic behaviours Nigerian context. All the items in this scale were rated based on a 7-point Likert scale, ranging from 1= *never* to 7 = *daily*. A sample item is: “Spent too much time fantasizing or daydreaming instead of studying”.

### Analytical Strategy

The researchers employed variance-based structural equation modeling approach (José & Manuel, 2012) using ADANCO 1.1 software (Henseler & Dijkstra, 2015) to test their theoretical model. Variance-based structural equation modeling approach is considered as the most suitable technique in this study for the following reasons. First, the variance-based structural equation modeling has the advantage of estimating the relationships between constructs (theory) and relationships between indicators and their corresponding latent constructs (data) simultaneously (Chin, 1998; Chin, Marcolin, & Newsted, 2003). Second, variance-based structural equation modeling is suitable when the goal of the research is to predict the endogenous latent construct. Finally, compared to other path modeling software (e.g., AMOS; Analysis of Moment Structures), the ADANCO 1.1 software was selected as a tool of analysis because of its friendly graphical user interface.

### Common Method Variance

Common method variance (CMV), also known to as monomethod bias is a major concern for scholars using self-report surveys (Lindell & Whitney, 2001; Podsakoff, MacKenzie, Lee, & Podsakoff, 2003; Spector, 2006). We used Harman’s (1967) single factor test to ensure that CMV is not an issue in the present study. Specifically, following Podsakoff, MacKenzie, and Podsakoff (2012) suggestion, we subjected all items in this study into the principal components factor analysis and the results of the analysis yielded 41% of the total variance for the first factor, which is less than 50% cut-off point as recommended by Kumar (2012). Additionally, the results indicated that no single factor accounted for the majority of covariance in the predictor and criterion variables (Podsakoff *et al.*, 2012). Hence, this suggests that CMV was not a major concern and is unlikely to inflate relationships between variables measured in the present study.

## RESULTS

### Measurement Model

In this study, the reserchers adopted Henseler, Ringle, and Sinkovics’ (2009) two-step process to present and evaluate the results of partial least squares path modeling approach to present the results. The reserchers first assessed the measurement model before evaluating the structural model. The assessment of a measurement model involves determining individual item reliability, internal consistency reliability, convergent validity and discriminant validity (Henseler *et al.*, 2009). Individual item reliability was ascertained by examining the outer loadings of each construct’s measure.

As a rule of thumb, loadings between 0.40 and 0.70 should be retained (Hair, Hult, Ringle, & Sarstedt, 2014). As indicated in Table 1, out of 35 items, only 8 were deleted because such deletion improved both Jöreskog’s rho ( $\rho_c$ ) or composite reliability and average variance extracted (AVE) for each construct. Thus, in the whole model, only 27 items were retained as they had loadings between 0.7127 and 0.9491.

TABLE 1  
Measurement Model

| Latent constructs and indicators | Loadings | Jöreskog's rho ( $\rho_c$ ) | Average variance extracted (AVE) |
|----------------------------------|----------|-----------------------------|----------------------------------|
| Attitude                         |          | 0.9183                      | 0.6928                           |
| ATD01                            | 0.7495   |                             |                                  |
| ATD02                            | 0.8544   |                             |                                  |
| ATD03                            | 0.8642   |                             |                                  |
| ATD04                            | 0.8690   |                             |                                  |
| ATD05                            | 0.8189   |                             |                                  |

|                               |        |        |        |
|-------------------------------|--------|--------|--------|
| Subjective norms              |        | 0.9115 | 0.6742 |
| SJN01                         | 0.8038 |        |        |
| SJN02                         | 0.8662 |        |        |
| SJN03                         | 0.8818 |        |        |
| SJN04                         | 0.8197 |        |        |
| SJN05                         | 0.7248 |        |        |
| Perceived behavioural control |        | 0.9242 | 0.7532 |
| PBC01                         | 0.8418 |        |        |
| PBC02                         | 0.8870 |        |        |
| PBC03                         | 0.9115 |        |        |
| PBC04                         | 0.8286 |        |        |
| Moral obligation              |        | 0.9519 | 0.8685 |
| MRO01                         | 0.9117 |        |        |
| MRO02                         | 0.9491 |        |        |
| MRO03                         | 0.9346 |        |        |
| Dishonest academic behaviours |        | 0.9403 | 0.6120 |
| DAB04                         | 0.8189 |        |        |
| DAB05                         | 0.8136 |        |        |
| DAB06                         | 0.8416 |        |        |
| DAB07                         | 0.7925 |        |        |
| DAB08                         | 0.7468 |        |        |
| DAB09                         | 0.7925 |        |        |
| DAB10                         | 0.7776 |        |        |
| DAB11                         | 0.7575 |        |        |
| DAB12                         | 0.7613 |        |        |
| DAB13                         | 0.7127 |        |        |

In this study, the assessment of internal consistency reliability is based on composite reliability coefficient, also known as Jöreskog's rho ( $\rho_c$ ). Following Bagozzi and Yi's (1988) rule of thumb, internal consistency reliability of measure is established when the Jöreskog's rho ( $\rho_c$ ) or composite reliability coefficient is 0.70 or more. As shown in Table 1, the researchers found the Jöreskog's rho coefficients to be between 0.9115 and 0.9519. Hence, satisfactory internal consistency reliability for each construct is achieved based on composite reliability coefficient above 0.70. Convergent validity, which represents the extent to which items truly measure the intended latent construct, was assessed by examining the AVE of each latent construct. To achieve satisfactory convergent validity, Chin (1998) recommends that the AVE of each latent construct should be 0.50 or more. Following Chin (1998), the AVE values (see Table 2) demonstrated high loadings above 0.50 on their respective constructs, indicating satisfactory convergent validity.

TABLE 2  
Results of Discriminant Validity of Measures (Fornell–Larcker Criterion)

| Construct                        | 1      | 2      | 3      | 4      | 5      |
|----------------------------------|--------|--------|--------|--------|--------|
| 1. Dishonest academic behaviours | 0.6120 |        |        |        |        |
| 2. Attitude                      | 0.3026 | 0.6928 |        |        |        |
| 3. Subjective norms              | 0.3943 | 0.2320 | 0.6742 |        |        |
| 4. Perceived behavioural control | 0.3864 | 0.2243 | 0.2526 | 0.7532 |        |
| 5. Moral obligation              | 0.1812 | 0.0832 | 0.1382 | 0.1269 | 0.8685 |

Note: Squared correlations; AVE in the diagonal.

TABLE 3  
Results of Discriminant Validity of Measures HTMT Approach

| Construct                        | 1      | 2      | 3      | 4      | 5 |
|----------------------------------|--------|--------|--------|--------|---|
| 1. dishonest academic behaviours |        |        |        |        |   |
| 2. Attitude                      | 0.5974 |        |        |        |   |
| 3. Subjective norms              | 0.6876 | 0.5482 |        |        |   |
| 4. Perceived behavioural control | 0.6763 | 0.5414 | 0.5603 |        |   |
| 5. Moral obligation              | 0.4473 | 0.3155 | 0.4091 | 0.3886 |   |

Discriminant validity was ascertained using two criterions, namely: Fornell-Larcker's criterion and heterotraitmonotrait ratio of correlations (HTMT) approach. According to Fornell-Larcker's criterion (1981) criterion, discriminant validity is ascertained by comparing the correlations among the latent constructs with square roots of average variance extracted (Fornell & Larcker, 1981). Further, adequate discriminant validity is realized when square root of the AVEs are significantly greater than the off-diagonal elements in the corresponding rows and columns (Barclay, Thompson, & Higgins, 1995). As indicated in Table 2, this condition is met. Hence, acceptable discriminant validity is demonstrated in this study. Regarding the heterotraitmonotrait ratio of correlations (HTMT) approach, discriminant validity is said to be adequate when HTMT values are below the threshold of 0.85 (Henseler, Ringle, & Sarstedt, 2015). Using this criterion, which is based on a multitrait-multimethod matrix, as recommended by Henseler *et al.* (2015), the results in Table 3 showed that none of the HTMT values was larger than 0.85, which suggest that our measurement model fits the data well and it is also indication of adequate discriminant validity.

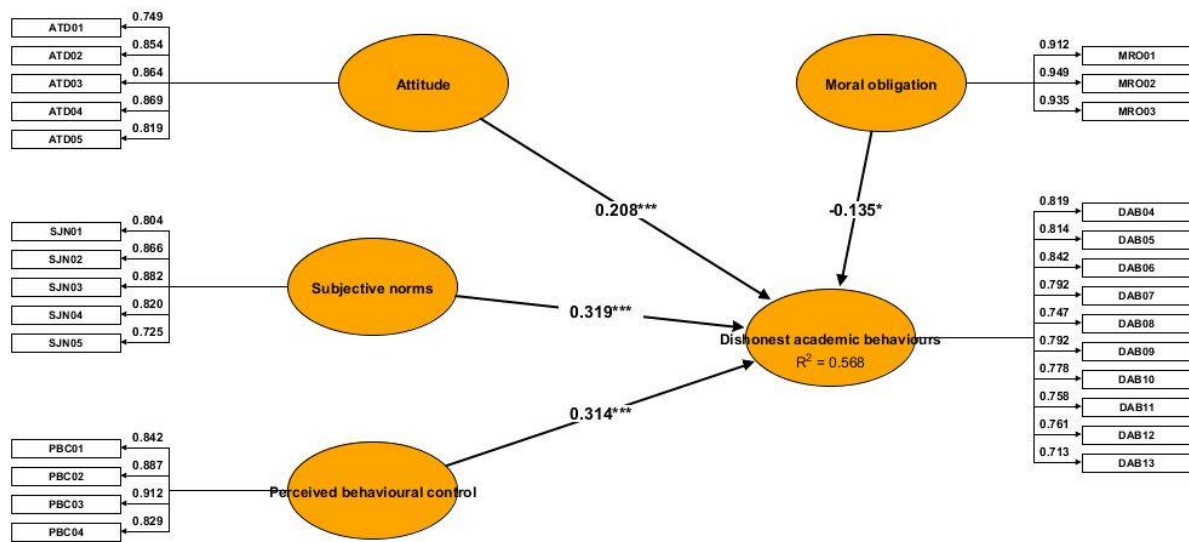
#### Structural Model

##### Significance of the Path Coefficients

The present study also applied the standard bootstrapping procedure with a number of 5000 bootstrap samples to assess significance of the path coefficients (Hair *et al.*, 2014; Hair, Ringle, & Sarstedt, 2011). Results pertaining to the hypothesized relationships in the proposed model are presented in Table 4 and Figure 1. Hypotheses tested are based on the direction and magnitude of estimates of the standardized path coefficients (i.e., directional hypotheses).

TABLE 4  
Results of Structural Model

| Hypotheses | Construct                     | Beta   | SE    | t-value | p-value | Findings  |
|------------|-------------------------------|--------|-------|---------|---------|-----------|
| H1         | Attitude                      | 0.208  | 0.053 | 3.959   | 0.000   | Supported |
| H2         | Subjective norms              | 0.319  | 0.055 | 5.774   | 0.000   | Supported |
| H3         | Perceived behavioural control | 0.314  | 0.065 | 4.842   | 0.000   | Supported |
| H4         | Moral obligation              | -0.135 | 0.059 | -2.274  | 0.012   | Supported |



**FIGURE 1:** Hypothesized Structural Model

With respect to Hypothesis 1, the researchers found a significant positive relationship between attitude and dishonest academic behaviours ( $\beta = 0.208$ ,  $t = 3.959$ ,  $p < 0.01$ ). As such, Hypothesis 1 is fully supported. Similarly, having subjective norms was associated with increased dishonest academic behaviours ( $\beta = 0.319$ ,  $t = 5.774$ ,  $p < 0.01$ ). Thus, Hypothesis 2 is also supported. For Hypothesis 3, the researchers did find a significant positive relationship between perceived behavioural control and dishonest academic behaviours ( $\beta = 0.314$ ,  $t = 4.842$ ,  $p < 0.01$ ), thereby confirming Hypothesis 3. Expectedly, Hypothesis 4 was also confirmed, as the researchers found the relationship between moral obligation and dishonest academic behaviours significant ( $\beta = -0.135$ ,  $t = -2.274$ ,  $p > 0.05$ ).

#### Assessment of R-square Value

The result for the assessment of R-square value is provided in Table 5. As shown in Table 5, cumulatively, the four exogenous latent variables in this study accounted for 57% of the variance in dishonest academic behaviours. According to Falk and Miller (1992), value of at least 0.10 or 10% for the variance explained is acceptable. Hence, following this rule of thumb, criteria, the proposed model has demonstrated an acceptable level of coefficient of determination.

**TABLE 5**  
Variance Explained in the Endogenous Latent Variable

| Construct                     | Coefficient of determination (R <sup>2</sup> ) |
|-------------------------------|--|
| Dishonest academic behaviours | 0.57   |

#### Assessment of Effect Size

Effect size ( $f^2$ ) refers the relative effect of independent variables on dependent variable (s) in a given study (Chin, 1998). According to Cohen (1988),  $f^2$  values of 0.02, 0.15 and 0.35 can be considered as small, medium and large effects respectively. The relative effect sizes of exogenous variables on endogenous latent variables are presented in Table 6. As shown in Table 6, the effect sizes attitude, subjective norms, perceived behavioural control, and moral obligation on dishonest academic behaviours were 0.07, 0.15, 0.15, and 0.03, respectively. This implies that the effect sizes were small for attitude on dishonest academic behaviours, as well as moral obligation on dishonest academic behaviours. In addition, the effect sizes of subjective norms and perceived behavioural control on dishonest academic behaviours, were medium. Although these statistics for attitude and moral obligation suggest small effect sizes, these effect sizes do not necessarily mean that the underlying effects are insignificant (Chin *et al.*, 2003).

TABLE 6  
Effect Sizes Based on Cohen's (1988) Guideline

| Effect   | Cohen's $f^2$ |
|--|---------------|
| Attitude -> dishonest academic behaviours                      | 0.07          |
| Subjective norms -> dishonest academic behaviours              | 0.15          |
| Perceived behavioural control -> dishonest academic behaviours | 0.15          |
| Moral obligation -> dishonest academic behaviours              | 0.03          |

## DISCUSSION AND CONCLUSION

Whilst Theory of Planned Behaviour (Ajzen, 1991) has been widely used to evaluate a wide range of students' behaviours, there is a paucity of research drawing on this perspective to predict dishonest academic behaviours in Nigerian academic settings. The purpose of this study was to draw upon Theory of Planned Behaviour to predict dishonest academic behaviours among students of higher education institutions in Nigeria. This finding adds further support to extant research that suggests that attitude toward academic dishonesty is important for predicting dishonest academic behaviours (e.g., Rajah-Kanagasabai & Roberts, 2015; Stone *et al.*, 2009, 2010). In the same vein, the finding that perceived behavioural control significantly predicted dishonest academic behaviours was also consistent with Theory of Planned Behaviour (Ajzen, 1991) and past research examining this relationship (Alleyne & Phillips, 2011; Chudzicka-Czupala *et al.*, 2015; Wilson, 2008). Relatedly, the findings showed that subjective norms were significantly related to dishonest academic behaviours. This result was consistent with Theory of Planned Behaviour (Ajzen, 1991) and prior research showing positive relationship subjective norms and dishonest academic behaviours (Alleyne & Phillips, 2011; Imran & Nordin, 2013; Mayhew, Hubbard, Finelli, Harding, & Carpenter, 2009; Stone *et al.*, 2009). Finally, this study confirmed the negative relationship between moral obligation and dishonest academic behaviours. This finding is not surprising because similar results were found in prior empirical studies, including Chudzicka-Czupala *et al.* (2016) and Alleyne and Phillips (2011).

There are several limitations of the present study that should be acknowledged. One limitation of the study is the issue of common method variance. All the variables in the present study were assessed using self-report measures. Although self-report measures are valid in assessing the effect of attitude, subjective norms, perceived behavioural control, and moral obligation on dishonest academic behaviours, however, the use of self-reports is associated with common method variance (Podsakoff *et al.*, 2012; Podsakoff & Organ, 1986). While the researchers have attempted to minimize the issue of CMV in the present study by ensuring anonymity and confidentiality (Podsakoff *et al.*, 2012; Podsakoff & Organ, 1986), it is likely that the participants in this study might have over-reported their dishonest academic behaviours on survey questionnaires. Thus, to control for the CMV, future studies might consider replicating the present study by collecting data at a different time with a different source, thereby ensuring independence of data points (Sharma, Yetton, & Crawford, 2009).

The final limitation of the study relates to focusing mainly on examining the direct relationships among attitude, subjective norms, perceived behavioural control, moral obligation and dishonest academic behaviours. Hence, the researchers only provide a partial explanation for the influence of these exogenous variables on dishonest academic behaviours because there may protentional boundary conditions or moderators behind these relationships. The results have provided many avenues for future research opportunities. For example, one could explore whether the relationships between attitudes, subjective norms, perceived behavioural control, moral obligation and dishonest academic behaviours is moderated by individual differences, such as self-control.

The researchers suggest several implications for practice and future research. The researchers suggest that attitudes, subjective norms, perceived behavioural control are important consideration in the prediction of dishonest academic behaviours. Furthermore, the researchers suggest that management of polytechnics can minimize the incidences of dishonest academic behaviours by conducting personality inventory test during admission process to screen out potential candidate whose values accord to that of their institution. In conclusion, the present study has extended our knowledge of the underlying factors explaining dishonest academic behaviours, which has focused specifically on attitudes, subjective norms, perceived behavioural control. The results are notable because they are well grounded in aspects of the literatures on educational psychology and organizational behaviour.

Based on the findings, the study has also contributed to the body of knowledge by integrating additional variable to the Theory of Planned Behaviour. Given that the option of including more variables to the Theory of Planned



Behaviour was unequivocally left open by the ‘fathers’ of the theory, the study has provided additional empirical evidence in the domain of Theory of Planned Behaviour including perceived moral obligation to the research model. Methodologically, the study has managed to use one of the more robust approaches (PLS path modeling) to assess the psychometric properties of each latent variable illustrated in the conceptual model of the study.

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## REFERENCES

- Ajzen, I. (1991). The theory of planned behaviour. *Organizational Behavior and Human Decision Processes*, 50, 179-211. doi: 10.1016/0749-5978(91)90020-t
- Alleyne, P., & Phillips, K. (2011). Exploring academic dishonesty among university students in Barbados: An extension to the theory of planned behaviour. *Journal of Academic Ethics*, 9, 323-338. doi: 10.1007/s10805-011-9144-1
- Bagozzi, R., & Yi, Y. (1988). On the evaluation of structural equation models. *Journal of the Academy of Marketing Science*, 16, 74-94. doi: 10.1007/bf02723327
- Barclay, D., Thompson, R., & Higgins, C. (1995). The partial least squares (PLS) approach to causal modeling: Personal computer adoption and use as an illustration. *Technology Studies*, 2, 285–309.
- Beck, L., & Ajzen, I. (1991). Predicting dishonest actions using the theory of planned behavior. *Journal of Research in Personality*, 25(3), 285-301. doi: 10.1016/0092-6566(91)90021-H
- Bennett, R. J., & Robinson, S. L. (2000). Development of a measure of workplace deviance. *The Journal of applied psychology*, 85(3), 349-360. doi: 10.1037/0021-9010.85.3.349
- Chin, W. W. (1998). The partial least squares approach to structural equation modeling. In G. A. Marcoulides (Ed.), *Modern Methods for Business Research* (pp. 295-336). Mahwah, New Jersey: Laurence Erlbaum Associates.
- Chin, W. W., Marcolin, B. L., & Newsted, P. R. (2003). A partial least squares latent variable modeling approach for measuring interaction effects: Results from a Monte Carlo Simulation study and an electronic-mail emotion/adoption study. *Information Systems Research*, 14, 189-217. doi: 10.1287/isre.14.2.189.16018
- Chudzicka-Czupała, A., Grabowski, D., Mello, A. L., Kuntz, J., Zaharia, D. V., Hapon, N., . . . Börü, D. (2015). Application of the Theory of Planned Behavior in Academic Cheating Research–Cross-Cultural Comparison. *Ethics & Behavior*, 1-22. doi: 10.1080/10508422.2015.1112745
- Chudzicka-Czupała, A., Grabowski, D., Mello, A. L., Kuntz, J., Zaharia, D. V., Hapon, N., . . . Börü, D. (2016). Application of the Theory of Planned Behavior in Academic Cheating Research–Cross-Cultural Comparison. *Ethics & Behavior*, 26(8), 638-659. doi: 10.1080/10508422.2015.1112745
- Cohen, T. R., Panter, A. T., Turan, N., Morse, L., & Kim, Y. (2014). Moral character in the workplace. *Journal of Personality and Social Psychology*, 107(5), 943-963. doi: 10.1037/a0037245
- Falk, R. F., & Miller, N. B. (1992). *A Primer for Soft Modeling*: University of Akron Press.
- Fornell, C., & Larcker, D. F. (1981). Evaluating Structural Equation Models with unobservable variables and measurement error. *Journal of Marketing Research*, 18, 39-50.
- Gil, J. M., Gracia, A., & Sánchez, M. (2000). Market segmentation and willingness to pay for organic products in Spain. *The International Food and Agribusiness Management Review*, 3, 207-226. doi: 10.1016/S1096-7508(01)00040-4
- Gino, F., Schweitzer, M. E., Mead, N. L., & Ariely, D. (2011). Unable to resist temptation: How self-control depletion promotes unethical behavior. *Organizational Behavior and Human Decision Processes*, 115, 191-203. doi: 10.1016/j.obhdp.2011.03.001
- Hair, J. F., Hult, G. T. M., Ringle, C. M., & Sarstedt, M. (2014). *A primer on partial least squares structural equation modeling (PLS-SEM)*. Thousand Oaks: Sage Publications.
- Hair, J. F., Ringle, C. M., & Sarstedt, M. (2011). PLS-SEM: Indeed a Silver Bullet. *Journal of Marketing Theory and Practice*, 18(2), 139-152.
- Harding, T. S., Mayhew, M. J., Finelli, C. J., & Carpenter, D. D. (2007). The theory of planned behavior as a model of academic dishonesty in engineering and humanities undergraduates. *Ethics & Behavior*, 17, 255-279. doi: 10.1080/10508420701519239
- Harman, H. H. (1967). *Modern factor analysis*. Chicago, IL: University of Chicago Press.
- Henseler, J., & Dijkstra, T. (2015). *ADANCO 1.1 software*. Kleve, Germany: Composite Modeling.
- Henseler, J., Ringle, C. M., & Sarstedt, M. (2015). A new criterion for assessing discriminant validity in variance-based structural equation modeling. *Journal of the Academy of Marketing Science*, 43(1), 115-135. doi: 10.1007/s11747-014-0403-8

- Henseler, J., Ringle, C. M., & Sinkovics, R. R. (2009). The Use of Partial Least Squares Path Modeling in International Marketing. In R. R. Sinkovics & P. N. Ghauri (Eds.), *Advances in International Marketing* (Vol. 20, pp. 277-320). Bingley: Emerald
- Imran, A. M., & Nordin, M. S. (2013). Predicting the underlying factors of academic dishonesty among undergraduates in public universities: A path analysis approach. *Journal of Academic Ethics, 11*, 103-120. doi: 10.1007/s10805-013-9183-x
- José, L. R., & Manuel, J. S.-F. (2012). Variance-based structural equation modeling: Guidelines for using partial least squares in information systems research. In M. Manuel, G. Ovsei, L. S. Annette & R. Mahesh (Eds.), *Research methodologies, innovations and philosophies in software systems engineering and information systems* (pp. 193-221). Hershey, PA, USA: IGI Global.
- Kumar, B. (2012). Theory of planned behaviour approach to understand the purchasing behaviour for environmentally sustainable products. (W.P. No. 2012-12-08 ). <http://www.iimahd.ernet.in/assets/snippets/workingpaperpdf/10260621182012-12-08.pdf>
- Lambert, E. G., Hogan, N. L., & Barton, S. M. (2003). Collegiate academic dishonesty revisited: What have they done, how often have they done it, who does it, and why did they do it. *Electronic journal of sociology, 7*(4), 1-27.
- Lindell, M. K., & Whitney, D. J. (2001). Accounting for common method variance in cross-sectional research designs. *Journal of Applied Psychology, 86*, 114-121. doi: 10.1037//0021-9010.86.1.114
- Mayhew, M. J., Hubbard, S. M., Finelli, C. J., Harding, T. S., & Carpenter, D. D. (2009). Using structural equation modeling to validate the theory of planned behavior as a model for predicting student cheating. *The Review of Higher Education, 32*, 441-468.
- McCabe, D. L. (2003). *2003 spring semester Kansas State University academic dishonesty survey study. Unpublished instrument.*
- Ndubisi, N. O., & Sinti, Q. (2006). Consumer attitudes, system's characteristics and internet banking adoption in Malaysia. *Management Research News, 29*(1/2), 16-27. doi: doi:10.1108/01409170610645411
- Nonis, S., & Swift, C. O. (2001). An examination of the relationship between academic dishonesty and workplace dishonesty: A multicampus investigation. *Journal of Education for Business, 77*(2), 69-77. doi: 10.1080/08832320109599052
- Okoro, J. (2015, March 24). UNICAL expels 45 over exam malpractice, *The Sun Newspaper*. Retrieved from <http://sunnewsonline.com/new/unical-expels-45-over-exam-malpractice/>
- Oladunni, A. (2012, August 22). Kwara Poly expels 45 students over exam malpractice, *The Vanguard*. Retrieved from <http://www.vanguardngr.com/2012/08/kwarapoly-expels-45-students-over-exam-malpractice/>
- Otokuneforon, T. (2013, June 6). There should be legal deterrent against exam malpractice, *The National Mirror*. Retrieved from <http://nationalmirroronline.net/new/there-should-be-legal-deterrent-against-exam-malpractice/>
- Podsakoff, P. M., MacKenzie, S. B., Lee, J.-Y., & Podsakoff, N. P. (2003). Common method biases in behavioral research: a critical review of the literature and recommended remedies. *Journal of Applied Psychology, 88*, 879-903.
- Podsakoff, P. M., MacKenzie, S. B., & Podsakoff, N. P. (2012). Sources of method bias in social science research and recommendations on how to control it. *Annual review of psychology, 63*, 539-569.
- Podsakoff, P. M., & Organ, D. W. (1986). Self-reports in organizational research: Problems and prospects. *Journal of Management, 12*, 531-544. doi: 10.1177/014920638601200408
- Rabi, S. M., Patton, L. R., Fjortoft, N., & Zgarrick, D. P. (2006). Characteristics, prevalence, attitudes, and perceptions of academic dishonesty among pharmacy students. *American Journal of Pharmaceutical Education, 70*(4), 73-80. doi: 10.5688/aj700473
- Rajah-Kanagasabai, C. J., & Roberts, L. D. (2015). Predicting self-reported research misconduct and questionable research practices in university students using an augmented theory of planned behaviour. *Frontiers in Psychology, 6*, 1-11. doi: 10.3389/fpsyg.2015.00535
- Robinson, S. L., & Bennett, R. J. (1995). A typology of deviant workplace behaviors: A multidimensional scaling study. *Academy of Management Journal, 38*, 555-572.
- Saidin, N., & Isa, N. (2013). Investigating Academic Dishonesty among Language Teacher Trainees: The Why and How of Cheating. *Procedia - Social and Behavioral Sciences, 90*, 522-529. doi: 10.1016/j.sbspro.2013.07.122
- Şendağ, S., Duran, M., & Robert Fraser, M. (2012). Surveying the extent of involvement in online academic dishonesty (e-dishonesty) related practices among university students and the rationale students provide: One university's experience. *Computers in Human Behavior, 28*, 849-860. doi: 10.1016/j.chb.2011.12.004
- Sharma, R., Yetton, P., & Crawford, J. (2009). Estimating the effect of common method variance: the method-method pair technique with an illustration from TAM research. *MIS Quarterly, 33*, 473-490.
- Simkin, M. G., & McLeod, A. (2010). Why do college students cheat? *Journal of Business Ethics, 94*, 441-453. doi: 10.1007/s10551-009-0275-x

- Smith, J. R., Terry, D. J., Manstead, A. S. R., Louis, W. R., Kotterman, D., & Wolfs, J. (2007). Interaction effects in the theory of planned behaviour: The interplay of self-identity and past behaviour. *Journal of Applied Social Psychology, 37*, 2726-2750. doi: 10.1111/j.1559-1816.2007.00278.x
- Spector, P. E. (2006). Method variance in organizational research: Truth or urban legend? *Organizational Research Methods, 9*, 221-232. doi: 10.1177/1094428105284955
- Stone, T. H., Jawahar, I. M., & Kisamore, J. L. (2009). Using the theory of planned behaviour and cheating justifications to predict academic misconduct. *Career Development International, 14*, 221-241. doi: 10.1108/13620430910966415
- Stone, T. H., Jawahar, I. M., & Kisamore, J. L. (2010). Predicting academic misconduct intentions and behaviour using the theory of planned behaviour and personality. *Basic and Applied Social Psychology, 32*(1), 35-45. doi: 10.1080/01973530903539895
- Trongmateerut, P., & Sweeney, J. T. (2013). The influence of subjective norms on whistle-blowing: A cross-cultural investigation. *Journal of Business Ethics, 112*, 437-451. doi: 10.1007/s10551-012-1270-1
- Uzoma, J. (2015, June 11). Imo poly expels 389 students over exam malpractice, *The Daily Trust*. Retrieved from <http://www.dailytrust.com.ng/daily/index.php/news-menu/news/56890-imo-poly-expels-389-students-over-exam-malpractice>
- Wideman, M. A. (2009). *Caring, sharing, coping and control: Academic dishonesty and the Nursing student. Unpublished PhD Thesis. University of Toronto. Ontario, Canada.* Retrieved from [https://tspace.library.utoronto.ca/bitstream/1807/19139/1/Wideman\\_Maureen\\_A\\_200911\\_PhD\\_thesis.pdf](https://tspace.library.utoronto.ca/bitstream/1807/19139/1/Wideman_Maureen_A_200911_PhD_thesis.pdf)
- Wilson, B. A. (2008). Predicting Intended Unethical Behavior of Business Students. *Journal of Education for Business, 83*(4), 187-195. doi: 10.3200/JOEB.83.4.187-195