CAUSAL RELATION OF ACADEMIC MISCONDUCT BEHAVIOR OF STUDENTS IN THAI EDUCATION INSTITUTIONS

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Abstract
Corruption has always been a pervasive issue in Thailand. Consequently, the government has decided to contrive a long-term corruption prevention measure by introducing the “Growing Good” initiative to education institutions. Nevertheless, academic misconduct can be considered a form of corruption that can be extensively found at the primary, secondary, and higher education levels. Academic misconduct refers to any actions which breach the code of academic conduct. This research aims to anticipate behavioral intention and academic misconduct behavior of 756 students in Thailand drawn from convenience sampling. The instrument used for investigation was questionnaires adapted from the works of Miller, Shoptaugh, and Wooldridge (2011); Stone, Jawahar, and Kisamore (2010); and McCrink (2010). To measure internal consistency, the Cronbach alpha coefficient was calculated for scales used to measure responses towards academic misconduct behavior in the questionnaires. It was found that the confidence levels obtained through Cronbach alpha coefficient were as follows: .82 for the attitudes scales, .93 for the subjective norms’ scales, .93 for the perceived behavioral control scales, .97 for the behavioral intention scales, and .99 for the behavior scales. The analysis of data using partial least squares structural equation modeling from SmartPLS 2.0, according to the theory of planned behavior, can contribute to the understanding of 73.2% of variance in behavioral intention and 76.7% of variance in the academic misconduct behavior. The results of this study can be used by executives and managers of educational institutions as a guideline to prevent and solve issues related to academic misconduct.

Keywords: academic misconduct; theory of planned behavior; structural equation models; Thai education institution

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Introduction

Academic misconduct of students in education institutions can be perceived as one crucial threat to academic integrity. Though students are fully aware that it is an unacceptable behavior, academic dishonesty is still widely practiced at primary, secondary, and higher education levels (Jensen, Arnett, Feldman, & Cauffman, 2002; Farnese, Tramontano, Fida, & Paciello, 2011). It can be asserted that students perform academic misconduct behaviors to create an academic advantage for oneself without demonstrating one’s true academic ability, intending solely to achieve better academic results that can be unfair to others. Academic misconduct inevitably leads to many negative results at all levels. For students, it contributes to building the inclination to corrupt in the future, while higher education and employers suffer the issues related to personnel selection in which candidates are recruited partly from past academic performance (Bouville, 2010; Farnese, Tramontano, Fida, & Paciello, 2011). Moreover, it may also lead to failure of educational management since instructors are unable to effectively evaluate the true performance of the teaching and learning process and correctly identify areas of improvement (Passow, Mayhew, Finelli, Harding, & Carpenter, 2006). Furthermore, students’ academic misconduct behavior in education institutions is also a predictor of future corruption at workplace (Elias, 2009; Lawson, 2004).

Therefore, students’ behavior and behavioral intention regarding academic misconduct is a prevalent issue in the Thai society which may lead to future corruption. Suan Dusit Poll (2012) finds that the number one unethical behavior performed by Thai children and youths is cheating on exams or copying peer’s homework. Such finding is in line with the survey conducted by ABAC Poll (2012) which investigates Thai children and youths’ perceptions of the norm in the Thai society by asking participants to compare the phrases “do good and good will come to you” with “no good deed goes unpunished”. It is found that most people (80.1%) believe that the latter phrase best captures the reality of the Thai society; whereas 19.9% still endorse the former. Moreover, as much as 59.4% of children and youths in the study believe that any civil servants, government officers, and civilians who accept the acts of corruption committed by their superiors tend to achieve career advancement and mutual benefits.
In addition, the Office of Higher Education Commission (OHEC) also acknowledges the importance of academic misconduct. The seminar entitled “True Winners Never Cheat” was held on 8 January 2015 to provide a platform for executives of higher education institutions and students to share ideas and suggest guidelines to raise consciousness against corruption and change the attitudes of staffs and students at higher education level to be more concerned of the general public benefits rather than personal gains. Learning about academic misconduct is encouraged through student activities and the classroom practices which foster the code of ethics and sufficiency. The activities should take into consideration the strategies for prevention, development, and motivation, such as creating values of academic honesty by abstaining from cheating on exams, copying, or plagiarizing the academic works of others (OHEC, 2015).

From all the reasons outlined above, it can then be inferred that Thai students perceive corruption in the Thai society as rather normative, and the majority of people who commit such act of dishonesty often escape legal punishment. Such attitude invariably precedes the deterioration of morality, ethics, and discipline of Thai students, creating the next generation of dishonest adults that are prone to commit corruption. In the present study, the researcher aims to study the factors that influence academic misconduct behaviors in education institutions by applying the theory of planned behavior which stems from social psychology to predict human behavior. Theory of planned behavior is developed from theory of reasoned action which looks at action both as a single action and behavioral categories. Therefore, this theory can best be used to predict and understand academic misconduct behavior (Ajzen, 2014; Ajzen & Sheikh, 2013; Ajzen, 2012; Ajzen, 2011; Ajzen, 1991; Beck & Ajzen, 1991). The tenets of this theory are elaborated in greater details below.

1) Behavior (B) is a result of behavioral intentions or intention (I) which is an indicator of one’s effort to perform a given behavior. The more an individual puts in the effort, the higher the propensity that such behavior will be performed.

2) Behavioral intention (I) depends on three factors, including attitude toward the behavior (AB), subjective norm (SN), and perceived behavioral control (PBC) which are outlined below.

2.1) Attitude toward the behavior (AB) is a positive or negative evaluation of a given behavior which depends largely on behavioral beliefs. In
other words, if a person believes that a given behavior leads to positive results, the more likely it is for that individual to have a positive attitude toward it. On the contrary, if the person believes that a given behavior will lead to negative consequences, that individual will be more inclined to have a negative attitude toward it. Therefore, it can be said that attitude toward behavior invariably depends on an evaluation of consequences one way or another.

2.2) Subjective norm (SN) is one’s perception of whether his or her significant others want the behavior to be performed. This depends on normative beliefs. If a person believes that the significant others think the behavior should be performed, that individual will be more inclined to perform it. By contrast, if a given behavior is not approved by the significant others, the more likely that person will not perform it. Nevertheless, subjective norm also depends on the degree of perception or motivation to comply.

2.3) Perceived behavioral control (PBC) is an individual’s perception of whether it is easy or difficult to perform a given behavior. Hence, this depends largely on control beliefs which concerns the evaluation of whether a person has sufficient opportunity or resources, such as experience or relevant information, to perform a given behavior. Perceived behavioral control also depends on perceived power which involves the consideration of whether that individual has the factors which can potentially support or hinder the act of performing a given behavior.

3) Thus, it can be seen that positive attitudes toward the behavior, subjective norms, and perceived behavioral control lead to higher behavioral intention. Such pattern leads to a more accurate prediction of behavior. As a result, attitudes, subjective norms, and perceived behavioral control are all influential factors which affect behavioral intention. However, in some cases, a realistic perception of perceived behavioral control may directly affect an individual’s decision to perform a given behavior without going through behavioral intention as seen in Figure 1.

The results obtained from the present investigation will lead to the contrivance of policy, plans and projects to prevent and solve the issues pertaining to students’ academic misconduct.
Method

This study employed the use of deductive research strategy which aims to prove the existing theory by using deductive reasoning that leads to hypotheses forming. These hypotheses were then tested to measure their consistency with empirical data (Blaikie, 2009). This process is based on a scientific inquiry under post-positivism and quantitative methodology to collect data to explain the causal relationship of variables.

Participants

The population in this study consists of 413,027 students at the age of 25 and below from education institutions in Songkhla Province, southern Thailand. The size of the sample group was determined based on the level of statistical power, the highest number of exogenous variables which predict endogenous variables, forecast accuracy coefficient, and the level of significance (Hair, Hult, Ringle, & Sarstedt, 2014). The sample group comprises of 756 students drawn from convenience sampling. The majority of the sample group are female with a total number of 516 participants (68.3%). The most common religion is Buddhism (66.7%), followed by Islam (31.7%), and other religions (1.6%). In terms of permanent residence, 52.4% of

Figure 1. The theory of planned behavior

<table>
<thead>
<tr>
<th>Attitude toward the Behavior (AB)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Subjective Norm (SN)</td>
</tr>
<tr>
<td>Intention (I)</td>
</tr>
<tr>
<td>Behavior (B)</td>
</tr>
<tr>
<td>Perceived Behavioral Control (PBC)</td>
</tr>
</tbody>
</table>

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participants are from sub-district administrative areas, 25.4% from sub-district municipality, 11.1% from town municipality, 7.9% from city municipality, and the remaining 3.2% of respondents did not report their domicile. The majority of the participants’ parents work mainly as farmers (54.0%), followed by laborers (20.6%), business-owners (12.7%), civil servants/state enterprise officers/government officers (6.3%), while the number of corporate workers and other occupations are equal at approximately 3.2%.

**Instruments**

This present investigation is a quantitative research. To measure academic misconduct behaviors, the instrument employed was a series of questionnaires originally devised by Miller, Shoptaugh, and Wooldridge (2011); Stone, Jawahar, and Kisamore (2010); and McCrink (2010). The index of congruence (IOC) was tested for validity, derived by five experts, showing that all questions have the index value of more than .60. The next phase was a pilot study in which the questionnaires were tested for reliability in a group of 30 participants. The data was subsequently analyzed by using Cronbach alpha coefficient which revealed that the confidence levels of scales used in the questionnaires were as follows: .82 for the attitudes scales, .93 for the subjective norms’ scales, .93 for the perceived behavioral control scales, .97 for the behavioral intention scales, and .99 for the behavior scales.

**Data Analysis**

Data analysis uses the causal analysis technique by using the partial least squares structural equation modeling by SmartPLS 2.0 program (Ringle, Wende, & Will, 2005). The analysis of latent variable used a reflective model which has three main advantages: causal analysis focuses on exploring the model rather than confirming the validity of the model, thus neither the supporting theory nor literature are required; data do not have to conform to normal distribution; and the criteria for consideration of appropriate values are as follows.

1. Criteria of Hair, Ringle, and Sarstedt (2014) are used in measurement, modeling, and analysis in items 1.1-1.3.
1.1. The evaluation of variable reliability level through indicator loadings calculation should provide the value of over .70 with a significant level of .05.

1.2. The evaluation of variable internal consistency by composite reliability (CR) calculation should result in the value of over .70.

1.3. The evaluation of convergent validity by calculating average variance extracted (AVE) should result in the value of at least .50.

1.4. The evaluation of discriminant validity proves that each model indicates only its latent variables. A comparative analysis of AVA square-root and inter-element $R^2$ or Fornell-Larcker criterion (Fornell & Larcker, 1981) was employed in this step.

2. The analysis of structural equation modeling

The analysis of overall modeling quality by calculating coefficient of determination ($R^2$ showing the value lower than .25) suggests low quality of modeling. On the other hand, the value of around .50 shows a moderate quality, while that over .75 means high quality (Hair, Hult, Ringle, & Sarstedt, 2014).

Results and discussion

This investigation aims to study factors influencing academic misconduct behaviors in education institutions. The data was obtained from 756 students. The results will be presented in two parts according to the analysis of measurement model and structural equation model.

The analysis of measurement model

From Table 1 and 2, and Figure 2 and 3, it can be observed that the coefficient of reliability (CR) and Cronbach alphas (CA) of all latent variables are higher than 0.7, while the weights of all indicators are higher than 0.708 with the reliability values higher than 0.5 and low statistical significance of .05. The values of Average Variance Extracted (AVE) of latent variables are higher than 0.5, while the square root of every AVE is higher than the correlation between latent variables. The latent variable measurement models in this study show that the values obtained from tests of internal reliability, indicator reliability, convergent validity, and discriminant validity meet the
criteria of internal consistency, making the data suitable for structural equation models analysis in the next section.

Table 1. Results of internal reliability and convergent validity

<table>
<thead>
<tr>
<th>Latent variable</th>
<th>CR</th>
<th>CA</th>
<th>AVE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attitude toward the behavior (AB)</td>
<td>0.910</td>
<td>0.803</td>
<td>0.835</td>
</tr>
<tr>
<td>Subjective norm (SN)</td>
<td>0.930</td>
<td>0.912</td>
<td>0.654</td>
</tr>
<tr>
<td>Perceived behavioral control (PBC)</td>
<td>0.920</td>
<td>0.871</td>
<td>0.794</td>
</tr>
<tr>
<td>Intention (I)</td>
<td>0.957</td>
<td>0.946</td>
<td>0.787</td>
</tr>
<tr>
<td>Academic misconduct behavior (B)</td>
<td>0.987</td>
<td>0.985</td>
<td>0.804</td>
</tr>
</tbody>
</table>

Table 2. Results of discriminant validity using Fornell-Larcker Criterion

<table>
<thead>
<tr>
<th>Latent variable</th>
<th>AB</th>
<th>SN</th>
<th>PBC</th>
<th>I</th>
<th>B</th>
</tr>
</thead>
<tbody>
<tr>
<td>AB</td>
<td>0.914</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SN</td>
<td>0.408</td>
<td>0.809</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PBC</td>
<td>0.518</td>
<td>0.668</td>
<td>0.891</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I</td>
<td>0.663</td>
<td>0.727</td>
<td>0.737</td>
<td>0.887</td>
<td></td>
</tr>
<tr>
<td>B</td>
<td>0.635</td>
<td>0.666</td>
<td>0.720</td>
<td>0.868</td>
<td>0.897</td>
</tr>
</tbody>
</table>

The analysis of structural equation modeling

The path coefficient analysis will be accurate when exogenous variables or predictor variables do not show any statistically significant relationship or multicollinearity by considering the tolerance level which should be higher than 0.2 and the values of variance inflation factor lower than 5.0 (Hair, Ringle, & Sarstedt, 2011). The analysis of Table 3 finds that both sets of predictor variables show tolerance ranging between 0.457 and 0.725, and the variance inflation factors (VIF) ranging between 1.379 and 2.186. These findings are in line with the aforementioned criteria, meaning that the structural equation models in this study do not show multicollinearity among exogenous variables.

Table 3. Results of analysis for multicollinearity of latent variables

<table>
<thead>
<tr>
<th>Predictor variable</th>
<th>Tolerance</th>
<th>VIF</th>
<th>Predictor variable</th>
<th>Tolerance</th>
<th>VIF</th>
</tr>
</thead>
<tbody>
<tr>
<td>AB</td>
<td>0.725</td>
<td>1.379</td>
<td>I</td>
<td>0.457</td>
<td>2.186</td>
</tr>
<tr>
<td>SN</td>
<td>0.549</td>
<td>1.822</td>
<td>PBC</td>
<td>0.457</td>
<td>2.186</td>
</tr>
<tr>
<td>PBC</td>
<td>0.482</td>
<td>2.075</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Figure 2 and 3 show the analysis for causal relation between latent variables in the structural equation models conducted to determine whether to accept or reject the research hypotheses. The analysis results of academic misconduct behavior of students in the province of Songkla find that the attitudes toward academic misconduct behavior (AB) have a direct influence on behavioral intentions (I) ($\beta=.352$, $t=16.963$, $p<.001$). Subjective norms toward academic misconduct behavior (SN) also has a direct influence on behavioral intention (I) ($\beta=.384$, $t=16.220$, $p<.001$). The perceived behavioral control of academic misconduct behavior (PBC) directly impacts behavioral intention (I) ($\beta=.298$, $t=10.275$, $p<.001$). Behavioral intention toward academic misconduct behavior (I) has a direct influence on behavior (B) ($\beta=.737$, $t=29.521$, $p<.001$).

Also, the perceived control of behavior toward academic misconduct behavior (PBC) also directly impact behavior (B) ($\beta=.177$, $t=6.790$, $p<.001$). Moreover, the latent variables of attitudes toward behavior (AB), subjective norms (SN), and perceived behavioral control (PBC) explain 73.2% ($R^2=0.732$) of the variance in latent variables of behavioral intention toward academic misconduct (I), which is considered a moderate level. Likewise, the latent variables of attitudes toward behavior (AB), subjective norms (SN), perceived behavioral control (PBC), and behavioral intention (I) explain 76.7% ($R^2=0.767$) of the variance in latent variables of behavior toward academic misconduct (B), which is considered a high level.

Figure 2. Structural equation modeling showing path coefficient, indicator loadings, and coefficient of determination
The findings of this study resonate with the theory of planned behavior (Ajzen, 2014; Ajzen, 2012) and the results of much similar research. For example, Hsiao (2015) conducts a research on the impact of ethical and affective variables on cheating of 525 Taiwanese undergraduate students from the faculty of business. Similarly, Freire (2014) investigates the academic misconduct among 2,492 Portuguese Economics and Business undergraduate students from government universities. Ekahitanond (2014) also studies the perception and behavior related to academic honesty of 160 Thai students from a private university who registered in an English module. In Pakistan, Rehman and Waheed (2014) explore the ethical perception and behaviors related to academic dishonesty of 61 university students. Park, Park, and Jang (2014) also examines unethical clinical behavior of 345 students from five nursing schools in South Korea.

Results of the present investigation are in line with the theory and other research. Hence, it can be explained that attitudes toward behavior is a positive or negative evaluation of performing a given action which depends on behavioral beliefs. If a person believes that a given behavior leads to positive
results, that individual will have a positive attitude toward behavior. On the contrary, if a person perceives that a behavior will lead to negative results, he or she will have a negative attitude toward that behavior. Hence, attitude toward behavior also depends significantly on an evaluation of consequences. Subjective norms are an individual’s perception of whether the significant others want that person to perform a given behavior which depends largely in normative beliefs. If a person believes that the significant others think the behavior should be performed, that individual will display a higher propensity to perform it. On the other hand, if his or her significant others do not approve of a given behavior, that person will be more inclined to reject that behavior. Subjective norms are also related to one’s motivation to comply. Perceived behavioral control is a person’s perception of how difficult or easy to perform a given behavior. This depends on control beliefs, or the evaluation of whether one has adequate opportunity or other resources, such as experience or relevant information, required to perform that behavior. Another element to consider is also the perceived powers of one’s means that may support or hinder the act of performing a behavior. Moreover, it is also found that a person’s behavior comes from behavioral intention or how committed that individual is to perform a given behavior. It is an indicator of the effort a person is willing to put in to perform that behavior. The more committed one is, the more likely the behavior will be performed. However, in some cases, one’s realistic perceived behavioral control may directly influence the behavior without having to go through the behavioral intention. In summary, experience or relevant information can either increase or decrease the level of a person’s commitment toward performing a given behavior. Thus, the higher the commitment, the more likely that individual will perform the behavior.

Implications and contributions of the study

The research results have been implemented at higher institutions in Songkla province, Thailand, including Songkla Rajabhat University (2015). The university’s code of conduct has been revised by increasing the penalty for students who plagiarize or cheat on exams. This scheme is set to change students’ behavioral intentions to participate in the acts of academic misconduct. According to the management regulations for undergraduate students 2015 which was imposed on August 15, 2015, the punishment and penalty for students who cheat on exams are written in item 16.4 of section 5,
stating that students who cheat on mid-and final-term exams will be judged by
the university’s appointed committee who will report to the university in order
to execute its penalty decision. The guidelines for deciding on the penalty are as
follows.

1. If the behavior is considered, or showing the intentions of, an
academic misconduct, a student will receive the grade of E or F on that
subject and/or will be suspended for a period of no longer than one semester.

2. If a student commits or participates in the act of academic misconduct
related to the examination, the appointed examination committee will decide
on and propose the appropriate penalty for the given student to the university.

3. The use of suspension penalty executed by the university will start at
the end of the semester in which a student commits the act of academic
misconduct. Also, the suspension period should be included as part of a study
period.

4. A student on suspension is required to pay a student status
maintenance fee for every semester he/she is suspended.

After monitoring the results of academic misconduct at Songkhla
Rajabhat University in the first semester of 2015, it was found that the number
of students who breached the code of conduct decreased from the previous
academic year. From informal discussion with students, some believed that the
harsher measures against academic misconduct have made students more
careful and disciplined as they try not to cheat on exams themselves, or
encourage/participate in the acts that can be considered exam malpractices.

At the national level, the Ministry of Education has devised relevant
policy and encouraged educational institutions at all levels to instill 12
academic values in students. The present research also supports the ministry’s
initiatives to build appropriate academic values through constant on-campus
activities, especially the sixth value which encourages students to ‘be ethical,
honest, well-intentioned, and generous’ as part of the 12 values, other projects
of ministry namely transparency university: Thai graduates not cheat; honestly
school; and growing good which aims to create the next responsible generation
who are the major force in driving the country’s future development (Ministry
Conclusions

The present study aims to predict the attitudes and behaviors toward academic misconduct of 756 students selected from convenience sampling. The instrument used to collect empirical data was questionnaires developed from the works of Miller, Shoptaugh, and Wooldridge (2011); Stone, Jawahar, and Kisamore (2010); McCrink (2010). The analysis of partial least squares structural equation model finds that attitudes, subjective norms, and perceived behavioral control explain 73.2% of variance in behavioral intention toward academic misconduct. Moreover, attitudes, subjective norms, perceived behavioral control, and behavioral intention explain 76.7% of variance in behavior toward academic misconduct.

Any person related to education institutions including executives and instructors can make a good use of these research findings. In terms of curriculum designing, it is worth noting that all processes involved in teaching and learning should make use of materials related to academic integrity to foster ethical attitudes and values among students. The negative results of academic misconduct should be made clear to raise learners’ awareness of the consequences and consequently avoid performing any acts related to academic dishonesty. Besides, education institutions should introduce appropriate punishment of any breach of the code of academic conduct by having it written as practical guidelines and signed as agreement to certify that the academic integrity will not be violated in any circumstances. Such activity should encourage students to believe that any acts that can be considered academic misconduct behaviors will not go unpunished.

The limitation of the present investigation stems largely from the sample non-probability sampling method. As a result, the research findings of this research cannot be considered as representative of all students’ behaviors in Thailand. Therefore, the prospective quantitative research should use probability sampling method in order to represent a wider population. Moreover, future research may also benefit from the mixed methods research under pragmatism using the data-validation variant which is a form of research which aims to validate quantitative findings from close-ended questions by adding some open-ended qualitative questions in the questionnaires or
quantitative survey. Such modification of research method will enable researcher to support quantitative findings with qualitative data.

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