

CASE STUDY

Factors that contribute to integrity of academicians in Malaysian public university: A case study

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ABSTRACT

Low integrity is a challenge for any organization. However, most organizations emphasize integrity without explaining what is required of an individual with high integrity. Exhibiting high integrity is necessary for academics; yet, the level of academic integrity remains unclear. Therefore, the purpose of this study is to examine the integrity level of academicians in a Malaysian public university. This paper shares the findings on the level of integrity of academics based on a questionnaire completed by 213 academicians. Data were collected by survey questionnaire and was analyzed using descriptive and inferential statistics. An overall mean score of 9.45 from a possible 10.0 indicated a high level of integrity among academics. The self-evaluation results by academics also demonstrated that they have attained integrity at a high level for their generic task, teaching and learning, research and publications and service for community with a mean score between 9.36 and 9.49. The value with the highest mean score was for “service to community”, whereas the lowest was for “research and publication”. These findings show that the university has successfully instilled values of integrity among academicians. Nevertheless, the university must continue to enhance academic integrity by exploring religiosity. Using Google Scholar, a literature search identified an Islam-based academic integrity model to explain the quantitative findings. Finally, a mixed method approach and involving all universities in Malaysia are recommended to further the findings of this study.

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KEYWORDS

education; academicians; integrity; generic practices; teaching and learning; service for community

1. Introduction

Disciplinary Integrity has emerged as a key concept and topic in government and governance research, as well as actual policymaking at all levels. According to Hanapiyah et al. (2019), the quality of the workforce is affected by how good the integrity practices are. Conversely, corruption, misuse of authority, and a lack of justice are invariably linked to a lack of integrity (Akinrinde, 2020). Integrity is connected to ethical human conduct of doing the right thing, observing regulations, and having excellent values. Integrity entails case handling, corruption, abuse of authority, violations of the law, legislation, and religion (Resick et al., 2008). Integrity is also adhering to moral ideals, supporting ethical standards, and doing the right thing (Ali, 2004). In addition, the Malaysian Institute of Integrity (IIM) defines integrity as an individual trait-based on pure values such as honesty, truthfulness, trust, justice, responsibility, transparency, efficiency and wisdom (Sulaiman, 2005). Integrity comes from the Latin word “integer”, meaning a complete, perfect, and strong union. Integrity is an essential concept in ethical reasoning closely linked to developing and maintaining a positive individual attitude (Widäng and Bengt 2003). Integrity is linked to leadership, describing it as a humane and just orientation of ethical leadership (Eisenbeiss, 2012), i.e. integrity as the level or state of balance between personal space, autonomy, and individual values. Integrity is described as a union between total commitment to the values held in one’s speech and actions (Roberts, 2005) while involving fair dealings, honesty, and reliability in the workplace (Gross, 2001). Integrity can be related to fairness, ethical guidance, power-sharing, morality, and belief in one’s commitment and ability to maintain morality without any compromise (Kalshoven et al., 2011). In addition, integrity is defined as adherence to moral principles, which captures the essence of ethical values (Thejls, 2020). Therefore, it can be seen as an essential driver of individuals’ ethical conduct (van Aswegen and Engelbrecht, 2009), i.e., a consistent and internal coherence between one’s confidence, statements, and actions (Musschenga, 2001).

As role models, academicians need to instill the value of integrity among students and their responsibility for generating and disseminating knowledge through teaching and learning, research and publication, and service to the community (Zabidi et al., 2020). According to Gallant (2017) the first goal of the teaching and learning approach to academic integrity is to promote a mastery-oriented rather than performance-oriented learning environment as the assessments in performance-oriented environments are superficial (i.e., earn points by doing text problem sets), easy (e.g., earn points by writing summaries of each of the course readings), or contrived (e.g., assessments that do not appear to be aligned with the learning objectives). Mastery-oriented environments naturally reduce cheating by reinforcing students’ motivations to learn and develop their meta-cognitive skills or self-awareness of what they know, what they need to know, and how to learn new competencies (Ambrose et al., 2010; Lang, 2013; Palazzo et al., 2010). Scholars further emphasized the significant and positive relationship between lecturer competency and student satisfaction, i.e. the importance of integrity to maintain and deliver service quality by the institution whilst resulting in student loyalty and institutional sustainability (Latip MS et al., 2020).

From a macro perspective, a higher civil servant-to-population ratio should demonstrate to the public the efficiency and effectiveness of a government service delivery system, which necessitates promoting organisational integrity (Organisation for Economic Co-Operation and Development, 2022). However, the government sector faces difficulties in establishing and sustaining good service delivery, as the civil service's performance and integrity remain low in Malaysia (Rosli et al., 2015). Sustainable development could not be guaranteed with only knowledge as evidenced by these two historical examples: (1) despite his scientific achievements in developing a civilisation personified by the magnificent pyramid, the Pharaoh's decline was caused by his loss of personal and ethical values; and (2) Emperor Shih Huang Ti of China, who was successful in constructing the Great Wall of China saw his civilisation destroyed due to a lack of praiseworthy values and ethics (Yusof, 2009).

The 'literate uneducated', or highly educated individuals are those who are only educated by degrees, rank, and self-esteem but have become incapable of ethical human values due to greed and selfishness (Yusof, 2009). This issue should also assess how students in higher education institutions can apply values and ethics whilst questioning higher education's ability to produce people with good values.

The selected university in Selangor, Malaysia is one of the public higher education institutions in Malaysia which has a high focus on integrity (Nik Ahmad et al., 2019). In addition to establishing a unit in charge of integrity in the university, comprehensive strategies have been developed to maintain a high level of integrity. However, the integrity level of the institution's members has not been measured. According to a baseline study, the absence of any evaluation might lack an appropriate instrument to measure unity.

As a result, besides showing that integrity has a wide range of meanings and applications, the objective of this study is to determine the level of integrity among of the academicians based on the values they uphold while performing their generic task, teaching, and learning, research and publication and while doing their community service. These values are accountability, trust, self-discipline, honesty, sincerity, credibility, prudence, efficiency, and fairness. The purpose of this study is also to test how far integrity in all practices is related to each other. The research questions are as follows:

- 1) What is the level of integrity among the academicians in the selected university in implementing generic task, teaching and learning, doing research and publication, and in performing community service?
- 2) How well do the four dimensions of integrity (integrity in generic practices, integrity in teaching and learning, integrity in research and publication and integrity in community service) predict integrity level of academicians?

This paper is organized as follows. First, under the subtopic of introduction, it provides a general overview of integrity, the significance and the academic and practical gap which lead to this study. After presenting the literature for the research including the model of integrity and the methodology employed, the results and implications of the findings are presented and discussed. The paper concludes with a consideration of limitations and suggested directions for further research.

2. Review of literature

Integrity has been a prominent topic of discussion since the early Greek, Chinese, and Islam civilizations. In the modern era, everyone in the organization must understand the concept of integrity and practice its values to ensure good performance. The importance of exhibiting integrity to fulfil one's responsibilities cannot be overestimated particularly from the perspective of a government sector. Public agencies are established with the primary objective of meeting the needs of people and the country (Abdullah and Abdullah, 2016). Monson et al. (2006) believed that a high-quality public service delivery system is required, and integrity is vital in creating efficient and disciplined public administration and services to achieve the objective. Integrity and ethics are inextricably linked. A person with integrity will act ethically and hold acceptable values and beliefs (Van Aswegen and Engelbrecht, 2009). Leaders with high integrity are trustworthy, caring, honest, and fair. Communicating ethical standards and disciplining unethical employees can influence subordinates to practice ethical behavior (Brown and Treviño, 2006). Integrity is compatible with ethics and success. Thus, a morally upright manager will always practice ethical leadership with high integrity and gain followers' trust and confidence (Schoorman et al., 2007).

Additionally, integrity ensures high productivity and quality service. Experts have sought to enhance the integrity of their citizens by raising awareness and sensitivity to quality, efficient, and prudent work. Their initiative aims to create the image of a workforce consisting of committed and capable individuals or teams. The success of any venture depends on four core values: trust, respect, innovation, and self-esteem, which are determined by one's ethics and integrity (Treviño and Nelson, 2021). Ismail et al. (2021) found good traits can mold good personality, sharpen giftedness and further the integrity characteristics among individuals.

The researchers have studied reports on government service integrity for this paper. For example, a study was conducted to measure the integrity of the Royal Malaysian Police. Seven hundred sixty members of Royal Malaysian Police officers in the state of Perak participated in the research. The findings showed that even with several attempts to enhance integrity within the police force, reports by the Bureau of Public Complaints and the Integrity Commission of the Agencies in 2014 indicated that a substantial number of complaints from the community regarding the Royal Malaysian Police's worsening integrity and the service delivery system (Megat Arifin and Ahmad, 2016). The findings also revealed that scholars disagreed about whether organizational culture and individual integrity had more influence on the integrity of police members (Megat Arifin and Ahmad, 2016). The study concluded that organizational culture was more relevant in explaining integrity issues among Royal Malaysian Police members due to its significant effect on attitudes and behavior. This finding is also confirmed that integrity and team attitude had a significant indirect impact on individual performance (Case and Smith, 2013).

Within the university ecosystem, the core job of academics is to deliver the lectures and tutorials in the course pro forma (McLean, 2018). Academicians also need to provide appropriate materials and consider the students' diverse educational backgrounds or experiences while teaching. Likewise, university rules and regulations must always be respected in whatever undertakings. Academics with integrity will follow procedures in giving students assignments and complete the teaching syllabus in time (Brunker et al., 2019). Trustworthiness in teaching and learning implies that academics provide lectures and/or tutorials as required and supervision and assessment, as prescribed by the

university, to achieve their goal of helping students reach their full potential (Tschannen-Moran and Wayne, 2000). Self-discipline will ensure that academics are always punctual with their lectures, tutorials, and appointments and offer helpful feedback. An honest academic will provide information rooted in empirical facts, offer views and opinions embedded in basic theory, and admit their fault when they are wrong. Sincere academics will guide students to overcome difficulties without requesting anything in return. They will provide guidance and assistance, regardless of students' background. Fairness will ensure that academics allocate equal supervision time to students and grade them according to the quality of the assignment regardless of their background (Chory, 2007).

Among the many public universities in Malaysia, University ABC was the first to really attempt to inculcate integrity among its staff (Isa et al., 2008). Inculcating values and ethics in higher education e-learning drive: UiTM i-Learn user policy. In World Academy of Science, Engineering and Technology Conference, University ABC's Management Compliance Committee issued the Vice-Chancellor Circular No.20/2007 on April 30, 2007, that directed staff to attend an Integrity Awareness Program to promote, among other things, strong moral and ethical values in the community, and ensuring that the staff have a strong sense of religious and spiritual values and high moral standards (Hamdani, 2014). The program aimed to educate and inculcate positive values within the administrative staff and to guide civil servants to be trustworthy, sincere, honest, and responsible in preserving and empowering the image of their respective departments. The concepts, definitions, policies, and integrity guidelines were introduced among University ABC staff through training sessions, lectures, workshops, and Human Capital Development programs. Information from the Integrated Data Centre indicated a significant increase in the knowledge and practice of integrity values among University ABC administrative staff by May 1, 2011. The university then developed a module to guide staff to achieve excellence and uphold religious values and ethics to strengthen and disseminate Islamic knowledge and thought by focusing on spiritual development and applying the values of integrity based on Islamic doctrine.

Religiosity can significantly impact employee behavior and performance and provide a frame of reference for decision-making (Osman-Gani et al., 2013). Integrity can be attributed directly and in parallel to trust, honesty, faith, strong belief, powerful character, and noble manners from an Islamic perspective. Piety, or doing what is commanded and avoiding what is forbidden, is a high level of integrity in the eyes of God for believers (Ali, 2009). From a broader perspective, Islamic integrity covers truthfulness, trust, honesty, sincerity, loyalty, responsibility, decisiveness, justice, efficiency, diligence, wisdom, firmness, personability, nobility and virtue (Hamam, 1995); values which emanate from the Messenger of Allah's qualities of truthfulness (Siddiq), trust (Amanah), revelation (Tabligh), and wisdom (Fatanah). With reference to the university, Islamic integrity is currently an embedded culture of University ABC as part of its DNA.

In all actuality, many studies have been undertaken to assess academics' integrity (Morris, 2018). In addition, a study by Nurunnabi and Hossain (2019) showed how research fraud and data falsification activity in the academic world lacks honesty and morality. The objective of the current study is to confirm the high level of integrity among the academicians, as studies focusing on all areas are under-researched as compared to plagiarism in research and publication (Bloch, 2007; Hansen, 2003; Howard and Davies, 2009; Zejno, 2018).

The conceptual framework for this study is based on the Integrity Model of Academicians shown

in **Figure 1**. This model was developed based on the values identified as appropriate to measure integrity. Based on a model that has been tested for validity through exploratory factor analysis, the values to measure academic integrity are accountability, trustworthiness, self-discipline, honesty, sincerity, credibility, prudent, efficient, and fairness. As a main reference for instrument development for this research, the dimensions and the values for each dimension will be explained in detail under the subtopic of methodology.

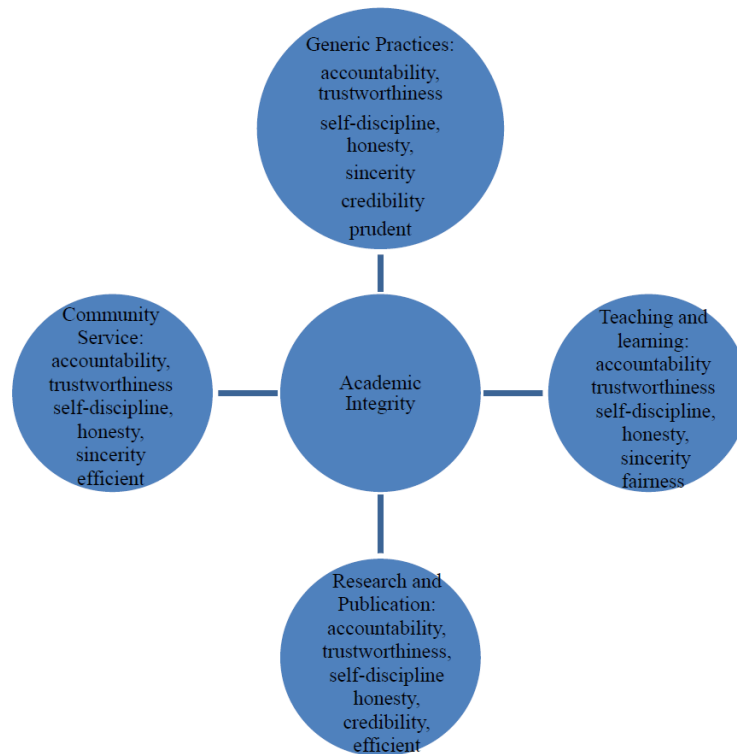


Figure 1. Integrity Model of Academicians.

Source: Alias et al. (2019).

3. Methodology

This is a case study using a quantitative method. The instrument which is a questionnaire was developed by the researchers and experts from the Malaysian Institute of Integrity (IIM). The questionnaires consist of four main constructs which have determined the level of integrity among academicians in a selected university in Selangor, Malaysia. The constructs are generic practices, teaching and learning practices, research and publication practices, and community service practices. There is also a sub construct which is a positive or a good value that must be possessed by academicians in order to attain a high level of integrity. To measure academicians' integrity in generic practices, the values are accountability, trust, self-discipline, honesty, sincerity, credibility, and prudence. The values to measure teaching and learning practices are accountability, trust, self-discipline, honesty, sincerity, and fairness. The values to measure integrity in research and publications are accountability, trust, self-discipline, honesty, credibility, and efficient. Whereas to measure integrity in community service practices, the values are accountability, trust, self-discipline, honesty, sincerity, and efficiency.

4. Data collection and analysis

The survey questionnaire was pre-tested with three experts and pilot tested with thirty academicians prior to the fieldwork. To suit the purpose of this study, 213 academicians from the selected university were chosen as a sample. The questionnaire also contains a few items to measure the demographic background of respondents. The sub-constructs (values) representing academic integrity, including were anchored on a 10-point scale (Courser and Lavrakas, 2012). The questionnaire was administered online to ensure their privacy was protected.

For subsequent analysis, the researchers adopted the three methods approach initially proposed by Buttle (1996) and subsequently applied by Shekarchizadeh et al. (2011) for this study: (a) item-by-item analysis; (b) dimension-by-dimension analysis; and (c) computation of a single overall measure of academic integrity. The researchers calculated the means of the items, dimensions and overall academic integrity accordingly. The mean score was interpreted according to the Educational Planning and Research Division of the Malaysian Ministry of Education guideline, i.e. a mean score of 0.0 to 2.5 represents a low level of integrity, 2.6 to 5.0 is a moderately low level of integrity, 5.1 to 7.5 denotes a moderately high level of integrity, and 7.6 to 10.0 constitutes a high level of integrity and is considered desirous.

Normality tests were conducted followed by a series of single mean t-tests that were conducted to assess 19 items, dimensions and overall academic integrity. A series of null hypotheses were developed ($H_0: \geq 5$ as 5 is the midpoint of the 10 points scale for each questionnaire item) and would be rejected if the p-values for the respective tests were less than 0.05. This would imply the significance of the items, dimensions and overall mean for academic integrity. The demography of the respondents is presented in **Table 1**. Among the 213 respondents, the majority (36.2%) are from the professional cluster, 64.3% are female respondents, and 51.6% have been in service for more than 5 years without any positions held. These demographic data reflect the population parameter of most universities in Malaysia, thus indicating the sample's representativeness of the population parameter or characteristics.

For content validity, the instrument has been reviewed by integrity experts at Malaysian Institute of Integrity (IIM) specifically to ensure that the values that have been identified are suitable for measuring integrity and are in line with the integrity values used by IIM. After two times of discussions, the meeting members finally agreed on the values listed to measure integrity, namely accountability, trust, self-discipline, honesty, sincerity, credibility, prudent, efficient, and fairness. The next step of validating the instruments was getting comments from two experts of different institutions that are Malaysian Institute of Islamic Understanding (IKIM) and Mara Professional College (KPM). The reasons for choosing the two experts are based on their experience and expertise in studying about integrity Malaysian wide. Both have reviewed and gave their views on the constructed items including the sentence structure used in the questionnaire.

Analysis to determine reliability showed that Cronbach's Alpha value for items to measure integrity of academicians is 0.987. This value is above 0.7, so the scale can be considered reliable with our sample (Pallant, 2005). Corrected Item-Total Correlation is between 0.324 to 0.825, an indication that each item correlates with the total score. Low values (less than 0.3) indicate that the item is measuring something from the scale (Pallant, 2005).

To test for the validity of the instrument, exploratory Factor Analysis has been done. The test is done using the data by 213 academicians who completed the questionnaires. This is in line with Hair et al.'s (1995) minimum sampling size suggestion. According to Yong and Pearce (2013), item that achieved lower (< 0.3) and higher correlation value (> 0.9) should be removed as they have very weak correlation to describe a factor (items with correlation < 0.3) or high multicollinearity (items with correlation value > 0.9). On top of that, the Bartlett's Tests of Sphericity should be significant, $p < 0.05$ (Williams et al. 2010). This test is used to estimate probability of correlations are 0 in a matrix (Worthington and Whittaker, 2006). In addition, Williams et al. (2010) suggested the use of Kaiser-Meyer-Olkin (KMO) Measure of Sampling Adequacy and Bartlett's Tests of Sphericity to ensure that the data is suitable for EFA. The value of KMO Measure of Sampling Adequacy should be at least 0.50.

The result of the correlation matrix indicated that there are items to measure integrity in generic practices that achieved correlation value of .3 and above, indicating acceptable correlation values. In addition, the value of KMO measure for sampling adequacy was 0.933 (> 0.5) and Bartlett's test of sphericity was significant ($p < 0.05$). Thus, it is relevant to state that the factor analysis is appropriate to be conducted for these data. In the next analysis, based on the Kaiser and Caffrey's (1965), criterion (eigenvalue bigger than 1), all item construct yielded one factor, which explained 68.652% of the total variance. This total value is acceptable as it is higher than 50% cut-off value (Kaiser and Caffrey, 1965).

Analysis of the correlation matrix also indicated that there are items to measure integrity in teaching and learning that achieved correlation value of .3 and above, indicating acceptable correlation values. The value of KMO measure for sampling adequacy was 0.953 (> 0.5) and Bartlett's test of sphericity was significant ($p < 0.001$). Thus, it is relevant to state that the factor analysis is appropriate to be conducted for these data. In the next analysis, based on the Kaiser and Caffrey's (1965), criterion (eigenvalue bigger than 1), all items' constructs yielded one factor, which explained 70.063% of the total variance. This total value is acceptable as it is higher than 50% cut-off value (Kaiser and Caffrey, 1965).

The correlation matrix also indicated that there are items to measure integrity in research and publication that achieved correlation value of .3 and above, indicating acceptable correlation values. The value of KMO measure for sampling adequacy was 0.927 (> 0.5) and Bartlett's test of sphericity was significant ($p < 0.001$). Thus, it is relevant to state that the factor analysis is appropriate to be conducted for these data. In the next analysis, based on the Kaiser and Caffrey's (1965), criterion (eigenvalue bigger than 1), all items' constructs yielded one factor, which explained 74.339% of the total variance. This total value is acceptable as it is higher than 50% cut-off value (Kaiser and Caffrey, 1965).

To measure integrity in performing community service, the result of correlation matrix indicated that items have achieved correlation value of .3 and above, indicating acceptable correlation values. The value of KMO measure for sampling adequacy was 0.941 (> 0.5) and Bartlett's test of sphericity was significant ($p < 0.001$). Thus, it is relevant to state that the factor analysis is appropriate to be conducted for these data. In the next analysis, based on the Kaiser and Caffrey's (1965), criterion (eigenvalue bigger than 1), all items' constructs yielded one factor, which explained 73.701% of the total variance. This total value is acceptable as it is higher than 50% cut-off value (Kaiser and

Caffrey, 1965).

4.1. Findings

Among the 213 respondents, the majority (36.2%) are from the professional cluster, 64.3% are female respondents, and 51.6% have been in service for more than 5 years without any positions held. These demographic data reflect the population parameter of most universities in Malaysia, thus indicating the sample's representativeness of the population parameter or characteristics. The demography of the respondents is presented in **Table 1**.

Table 1. Demographic information of respondents.

| Information | f | % |
|--------------------------------------|------------|------------|
| Cluster | | |
| Science | 35 | 16.4 |
| Arts | 49 | 23.0 |
| Professionals | 77 | 36.2 |
| Medical | 52 | 24.4 |
| Total | 213 | 100 |
| Gender | | |
| Male | 76 | 35.7 |
| Female | 137 | 64.3 |
| Total | 213 | 100 |
| Tenure | | |
| Less than 1 year | 14 | 6.6 |
| 1- 5 years | 55 | 25.8 |
| 6 - 10 years | 33 | 15.5 |
| 11- 15 years | 36 | 16.9 |
| More than 15 years | 75 | 35.2 |
| Total | 213 | 100 |
| Administrative position held: | | |
| Yes | 103 | 48.4 |
| No | 110 | 51.6 |
| Total | 213 | 100 |

4.2. Analysis of findings

Subsequently, the researchers conducted reliability tests for the factors by determining Cronbach's alpha values. A factor is statistically reliable only when Cronbach's alpha values are greater than 0.7 (Hair et al., 1998). Cronbach's alpha values from the 213 respondents ranged from 0.7234 to 0.8333 indicating good statistical reliability. A series of normality followed by single mean t-tests were conducted to analyze seven dimensions of academic integrity. Null hypotheses were developed and would be rejected if the p-values for the respective tests were less than 0.05. This would imply that the means for the gaps are significantly negative, implying dissatisfaction among the respondents. This exploratory study intends to compare expectations and perceptions of service quality. Therefore, simple single mean t-tests at the item, dimension and overall service

quality would suffice accordingly. Tests for normality were conducted prior to any inferential analysis. The simple method to check for normality is to determine the skewness and kurtosis of the dependent variable in the range of -2 to $+2$ (Khan et al., 2018). In the current study, the skewness and kurtosis of the dimensions and items for academic integrity are within the range of 1.76 to 1.96, thus implying the data is normally distributed.

The result of the analysis to answer research question 1: “What is the level of integrity among the academicians in the selected university in implementing generic task, teaching and learning, research and publication, and in community service?” is shown in **Table 2**.

Table 2. Integrity level of academicians.

| Dimension of academic integrity | Mean | Standard deviations | Level |
|--|---------------|----------------------------|-------------------------------|
| <i>Generic practices:</i> | 7.2019 | 2.51066 | <i>Moderately high</i> |
| accountability | 8.9906 | 1.24382 | High |
| trustworthiness | 8.0376 | 2.46838 | High |
| self-discipline | 8.3521 | 1.36083 | High |
| honesty | 9.2394 | .98285 | High |
| sincerity | 9.2019 | 1.22150 | High |
| credibility | 9.1643 | 1.26500 | High |
| prudent | 9.3099 | 0.94557 | High |
| <i>Teaching and learning:</i> | 8.3850 | 1.45763 | <i>High</i> |
| accountability | 8.7981 | 1.28548 | High |
| trustworthiness | 9.3474 | 0.86953 | High |
| self-discipline | 8.8028 | 1.15276 | High |
| honesty | 9.1362 | 1.18372 | High |
| sincerity | 9.5117 | 0.76855 | High |
| fairness | 9.3380 | 0.92569 | High |
| <i>Research and publication:</i> | 7.4554 | 2.44643 | <i>Moderately high</i> |
| accountability | 8.7136 | 1.34503 | High |
| trustworthiness | 8.5164 | 2.30790 | High |
| Self-discipline | 8.4413 | 1.72730 | High |
| honesty | 9.1408 | 1.33490 | High |
| credibility | 9.2535 | 1.60528 | High |
| efficient | 8.8263 | 1.37459 | High |
| <i>Community service:</i> | 8.4554 | 1.76286 | <i>High</i> |
| accountability | 8.8920 | 1.34676 | High |
| trustworthiness | 9.2535 | 1.25951 | High |
| self-discipline | 9.4085 | .83966 | High |
| honesty | 9.3803 | .98142 | High |
| sincerity | 9.1455 | 1.47061 | High |
| efficient | 9.2770 | 1.02942 | High |
| <i>Overall academic Integrity</i> | 6.4085 | 2.82130 | <i>Moderately high</i> |

As mentioned earlier, according to Malaysian Ministry of Education (2014), score of 0.0 to 2.5 represents a low level of integrity, 2.6 to 5.0 is a moderately low level of integrity, 5.1 to 7.5 denotes a moderately high level of integrity, and 7.6 to 10.0 constitutes a high level of integrity and is considered desirous. It is interesting to note that all the items, dimensions, and overall academic integrity has attained at least moderately high level. For the main dimensions, “community service” and “teaching and learning” have achieved a high level. “Community service” was at the highest level (mean score = 8.4554), followed by “teaching and learning” (mean score = 8.3850). “Research and publication” and “generic practices” achieved a moderately high level. Mean score for “research and publication” is 7.4554, while mean score for generic practices is 7.2019. It is also interesting to note that value “sincerity in teaching and learning” has attained the highest level (mean score = 9.5117) while “trustworthiness in generic practices” has attained the lowest level (mean score = 8.0376). Even though in some area, lower score means have been achieved, these findings however, showed that the academicians have attained a high level of integrity. This finding is expected as many of the teaching staff at the university are Muslims, and the university has made integrity as its main focus. However further research should be done to determine the relationship between academicians’ background and level of integrity among them.

Multiple regression analysis has been done to answer research question two, “How well do the four dimensions of integrity (integrity in generic practices, integrity in teaching and learning, integrity in research and publication and integrity in community service) predict integrity level of academicians?” The analysis also produced output that explained “How much variance in integrity scores of academicians can be explained by scores on these four scales?”. The analysis was also to answer the question of “Which is the best predictor of integrity level of the academicians’ integrity in generic practices, integrity in teaching and learning, integrity in research and publication or integrity in community service?”

Multicollinearity analysis to determine the correlation value between independent variables (integrity in generic practices, integrity in teaching and learning, integrity in research and publication and integrity in community service) and between independent variable with the dependent variable (integrity level of the academicians) was made. **Table 3** shows the findings of the analysis.

Table 3. Correlation between independent and dependent variable and correlation between independent variables dimensions.

| | Integrity of academicians | Integrity in generic practices | Integrity in teaching and learning | Integrity in research and publication | Integrity in community service | |
|--------------------------------|---------------------------------------|--------------------------------|------------------------------------|---------------------------------------|--------------------------------|---------|
| Integrity of academicians | 1.000 | 0.450** | 0.364** | 0.477** | 0.353** | |
| integrity in generic practices | 0.450** | 1.00 | 0.862** | 0.853** | 0.844** | |
| Pearson Correlation | integrity in teaching and learning | 0.364** | 0.862** | 1.00 | 0.845** | 0.839** |
| | integrity in research and publication | 0.477** | 0.853** | 0.845** | 1.00 | 0.849** |
| | integrity in community service | 0.353** | 0.844** | 0.839** | 0.849** | 1.000 |

** correlation is significant at 0.01 (2-tailed)

The correlation value between the dimensions of independent variables (integrity in generic practices, integrity in teaching and learning, integrity in research and publication and integrity in community service) is between 0.844 and 0.862, which is $r < 0.90$. Pallant's (2005) view that multicollinearity exists only when there is a high correlation between independent variables ($r = 0.9$ and above) is used to perform the next procedure which is the multiple regression test. The results of the analysis to determine the correlation between the independent variable and the dependent variable (the level of integrity of academicians) show that the correlation value (r) is between 0.353 to 0.477, which is more than 0.30, then again provides justification for a multiple regression analysis made to answer the research question.

The R^2 value in **Table 4** shows how much of the variance in the dependent variable (the level of academicians' integrity) is affected by the independent variable (integrity in generic practices, integrity in teaching and learning, integrity in research and publication and integrity in community service). The R^2 value shown is 0.266 or equal to 26.6 percent. This means that overall, 26.6 percent of the variants in academicians' integrity are influenced by integrity in generic practices, integrity in teaching and learning, integrity in research and publication and integrity in community service. While another 69.7 percent were influenced by other factors that were not studied in this study.

Table 4. Model Summary.

| Model | R | R square | Adjusted R square | Std. Error of the estimate |
|-------|--------------------|----------|-------------------|----------------------------|
| 1 | 0.516 ^a | 0.266 | 0.252 | 2.43970 |

a. Predictors: (Constant), integrity in generic practices, integrity in teaching and learning, integrity in research and publication and integrity in community service.
 b. Dependent Variable: Integrity of Academicians.

To determine the extent of the contribution of each construct (integrity in generic practices, integrity in teaching and learning, integrity in research and publication and integrity in community service) towards academicians' integrity, the Beta value in **Table 5** is seen. According to Pallant (2005), to compare different variables, it is important to look at the standard coefficients. Standardized means that all values for each variable have been converted to the same scale. The highest Beta value is 0.550 which is for "research and publication". This means that "research and publication" contributes the most to academician's integrity, followed by "generic practices" with Beta value = 0.338, and community service with Beta value = 0.260. The least contributing dimension is "teaching and learning" with a Beta value of 0.217. At value of $p \leq 0.05$, only research and publication and generic practices have a significant contribution towards academicians' integrity.

What can be concluded from this finding is "integrity" has become a culture among the academicians. However, in some respects, since generic practices and research and publication contribute the most to the level of integrity, academician still need to ensure that they will inculcate all the values of integrity in doing their job especially the value of accountability to make sure that their level of integrity can be increased.

Table 5 Coefficients.

| Model | Unstandardized coefficients | | Standardized coefficients | | | Collinearity statistics | |
|--------------------------|-----------------------------|------------|---------------------------|--------|-------|-------------------------|-------|
| | B | Std. Error | Beta | t | Sig. | Tolerance | VIF |
| (Constant) | -10.585 | 2.703 | | -3.916 | 0.000 | | |
| Generic Practices | 1.783 | 0.632 | 0.388 | 2.823 | 0.005 | 0.187 | 5.348 |
| Teaching and Learning | -0.969 | 0.598 | -0.217 | -1.621 | 0.107 | 0.197 | 5.074 |
| Research and Publication | 2.050 | 0.497 | 0.550 | 4.122 | 0.000 | 0.198 | 5.042 |
| Community Service | -1.039 | 0.519 | -0.260 | -2.001 | 0.047 | 0.210 | 4.772 |

5. Discussion

The fact that the academicians have attained a moderately high level of integrity is consistent with the effort of the institution to ensure integrity is being practiced. This finding is expected as many of the teaching staff are Muslims. Religiosity can significantly impact employee behavior and performance and provide a frame of reference for decision-making (Osman-Gani et al., 2013). Piety, or doing what is commanded and avoiding what is forbidden, is a high level of integrity in the eyes of God for believers (Ali, 2009). From a broader perspective, Islamic integrity covers truthfulness, trust, honesty, sincerity, loyalty, responsibility, decisiveness, justice, efficiency, diligence, wisdom, firmness, personability, nobility and virtue (Hamam, 1995); values which emanate from the Messenger of Allah's qualities of truthfulness (Siddiq), trust (Amanah), revelation (Tabligh), and wisdom (Fatanah). From psychological perspective, a knowledgeable and competent academically individual needs to have high integrity. Not to mention that they are educators who should be good models for students by always having integrity whether in actions or words.

Highly integrity individual embracing personal qualities such as accountability, trustworthiness, self-discipline, honesty, credibility, and prudence that has become the values that always tied by the academicians (Duke 2011). According to Tracy (2017), those qualities will contribute to the seven attributions of becoming great leaders, namely visionary, courage, humility, strategic planning, focus, and cooperation. Those personal and social competencies attributes are included in the domains of emotional intelligence which considered crucial for educators or academicians (Goleman 2014; Hassan, 2006; Rorlinda 2010; Syafril, 2004). Therefore, this might be one of the reasons why the university has become among the top-ranking research university in Malaysia, as stated by Treviño and Nelson (2021), the success of any venture depends on four core values: trust, respect, innovation, and self-esteem, which are determined by one's ethics and integrity. A person with integrity will act ethically and hold acceptable values and beliefs (Van Aswegen and Engelbrecht, 2009). Leaders with high integrity are trustworthy, caring, honest, and fair whereas communicating ethical standards and disciplining unethical employees can influence subordinates to practice ethical behavior (Brown and Treviño, 2006). Integrity is compatible with ethics and success. Thus, a morally upright manager will always practice ethical leadership with high integrity and gain followers' trust and confidence (Schoorman et al., 2007). To support this statement, further

research should be done specially to determine the relationship between leaders' role, academicians' background, and level of integrity.

This study's findings align with Azman et al. (2016) by addressing ethical considerations that are fundamental to career advancement, creating a cohesive narrative on the challenges and ethical facets of academic progression. Moreover, its relevance extends to the international stage as it parallels Muhammad et al. (2020) offering potential cross-cultural perspectives on academic integrity. Furthermore, the connection with Ismail et al (2021) underscores the broader impact of integrity on academic motivation and engagement, highlighting the interconnectedness of ethical considerations and students' educational experiences. In essence, this research on academic integrity contributes not only to the Malaysian academic landscape but also to the broader discourse on ethical practices and motivations within diverse educational contexts.

6. Conclusion

This study supports the policy and initiatives implemented in the university. The role of a special unit named by Integrity Unit need to be strengthened. Their main role is to promote integrity among university staff, including the academicians should be supported. Integrity in whatever undertakings should be emphasized and should become a compulsory to all. This study is also significant to increase the awareness of the integrity in the institution since public agencies are established with the primary objective of meeting the needs of people and the country (Abdullah and Abdullah, 2016). As Monson et al. (2006) believed, a high-quality public service delivery system is required, where integrity should become a vital in creating efficient and disciplined public administration and services. Even though conclusion has been made based on findings that integrity has become a practice among the academicians, however, in some respects such as in generic practices and research and publication, effort should be taken to inculcate values of integrity since these two domains have been identified as the major factors that contribute to the level of integrity.

Additionally, the present study supports the theory that integrity is the outcome of having a value of accountability, trustworthiness, self-discipline, honesty, sincerity, credibility, prudent, fairness and efficient. A person with higher level of those values will become someone with a higher level of integrity. Therefore, to become academician with integrity, he or she must inculcate the values of integrity whether in their general practices, teaching and learning, research and publication as well as in doing community services. Lower score attained in some aspect of integrity that is in general practices and in research and publication (compared to in teaching and learning and in community services) showed that the academicians need to be more careful and must ensure that they have practice the values of integrity in doing job related to general practices and research and publication. The Muslim academicians should act as a good model to others by showing that integrity is their major concern in whatever their undertakings.

To conclude, the study found academicians have achieved a moderately high level of integrity. The most contribution factors to integrity are generic practices and research and publication. Therefore, effort must be done to inculcate the value of integrity (the values of accountability, trustworthiness, self-discipline, honesty, sincerity, credibility, prudent and efficient) among academicians to further increase integrity level. For future research, mixed method research design is recommended. Data from interviews or observations (qualitative method) can be used to

explain the findings in detail of quantitative data especially for the level of integrity attained by the respondents.

Author contributions

Conceptualisation, BSA, RY; methodology, BSA; validation, AR; formal analysis, MNAN, MRI; investigation, MNAN, MRI, SAP, KAJ; resources, IHA; writing the original manuscript, BSA, RY; writing-reviewing and editing, MJI. All authors have read and agreed to the published version of the manuscript.

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Conflicts of Interest

The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

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