



---

# **The Relationship between Athlete Satisfactions with Coach Management Training Programme, Transformational Leadership and Sports Innovations**

**Siti Nur Ain Zakinuddin<sup>1\*</sup> and Sabarani Haji Ghazali<sup>1</sup>**

<sup>1</sup>*School of Government, Universiti Utara Malaysia, Malaysia.*

## **Authors' contributions**

*This work was carried out in collaboration between both authors. Author SNAZ designed the study, performed the statistical analysis, wrote the protocol, wrote the first draft of the manuscript and managed the analyses of the study. Author SHG managed the literature searches, checking on grammar and also the arrangement of the sentences. Both authors read and approved the final manuscript.*

## **Article Information**

DOI: 10.9734/ARJASS/2019/v9i330128

Editor(s):

(1) Dr. Alina Georgeta Mag, Department of Private Law and Educational Science, "Lucian Blaga" University of Sibiu, Romania.

Reviewers:

(1) Pedro Miguel Alves Ribeiro Correia, University of Lisbon, Portugal.

(2) Hsu, Yu-Ping, Chang Jung Christian University, Taiwan.

(3) M. V. Chandramathi, Delhi Public School, India.

Complete Peer review History: <http://www.sdiarticle4.com/review-history/51551>

**Original Research Article**

**Received 10 July 2019**  
**Accepted 20 September 2019**  
**Published 04 October 2019**

---

## **ABSTRACT**

Athlete satisfaction is a sense of satisfaction derived from the leadership, experience and behavior of the coach. This study will expose the athlete's satisfaction in sports and give advantages of the sports industry generally in Malaysia and particularly at Universiti Utara Malaysia. This study will be helpful in completing research related to sports topics as the results of this study will be able to see the relationship between Coach Management Training Programme, Transformational Leadership and Sports Innovation with Athletes Satisfaction. The subjects of the study were 42 athletes of Universiti Utara Malaysia. This study uses quantitative methods conducted through questionnaires. The use of Statistical Package for Social Science (SPSS) version 25.0 has been carried out to determine the results of descriptive analysis, reliability and correlation. The results show, athlete's satisfaction has a positive relationship with the Coach Management Training Programme, Transformational Leadership and Sports Innovations.

---

\*Corresponding author: Email: [ainzakinuddin@gmail.com](mailto:ainzakinuddin@gmail.com);

*Keywords: Athlete satisfaction; coach management training programme; transformational leadership; sports innovations.*

## 1. INTRODUCTION

Malaysia is a developing country that is not only known through the governance, administration, education, health, economic and social work, and even sports development in Malaysia is quietly become famous. Sport is an activity that not only provides the body with fitness or leisure, but sports can help in boosting economic prosperity, provide employment opportunities thus contribute towards growing aspirations and increasing skill levels as well as opening up opportunities in commercial industries such as sports and tourism products which can promote the name of the country on the world stage. Malaysia has long desired to elevate the country's sporting prestige to the highest level. This is because sports are seen to be able in generating national income through services, medicine, sports science, tourism and others and not just focus on the sports product manufacturing industry [1]. In global sports news, some of the world's most popular sports such as football have been influencing sports interests from individuals around the world. The International Football Association (FIFA) has released a comprehensive audit report of final viewership data which sees the 2018 World Cup around 3.572 billion views recorded [2]. With an estimated 3.2 billion views for the tournament, revenue from broadcast rights is estimated to increase to \$ USD 3 billion. In Malaysia, sports are seen as an area that will help to boost the country's economy along with achieving the developed countries status. Malaysia used to give birth to many star athletes who have become national heroes on the international stage. However, things are getting worse and the country's name is sinking into global sports. In order to restore the country's sporting standing to the highest level in the world, millions of dollars have been spent solely on the success of various sports projects in our country. The issues arise is that, the sports in the institutions in Malaysia are still at disappointing level. The sports games for the universities level also shows that Malaysia is not compete with other countries.

Universiti Utara Malaysia (UUM) is a university that prioritizes the field of management as the core of learning. Sports at UUM are considered less popular than the universities offering sports-related fields in study background. However, as UUM is a leading management university, the

course of management in the sports industry or the field of management related to athlete behavior should be a subject of study at UUM. There are various sports competitions involving universities such as the Majlis Sukan Universiti Malaysia (MASUM), the ASEAN University Games (AUG) and the Sukan Institut Pengajian Tinggi (SukIPT). However, UUM's position is still not favorable. The responsible party should find the cause and provide the initiative to address these issues. Sports in UUM are seen to be further enhanced. UUM also needs to be more prominent in the sport because day-to-day sports activities is not only fostering the spirit of sports among students but also will help UUM in generating income through business and aid services. Thus, it is still unclear whether athletes who required to work harder and sweating, or sports officials should pay more attention to upturn sports ranks at UUM. As one of the solutions, the cooperation from all parties is an essential factor in assessing the performance of athletes. The management, the coaches and the athletes themselves have to work harder to keep up with the sports performance at UUM. The Coach Management Training Programme is seen as one of the benchmarks to enable an athlete to achieve success. According to Anuar [3], Coach Management Training Programme is the control of training programs for athletes and team management that is regulated by officers, managers and coaches. Coach Management Training Programme covers aspects of training programme, financial aspects, aspects of association and organization management, skills and knowledge of coaches and also facilities [4, 5]. The results of Cakioglu [6] study, found that a lack of knowledge in coaching especially in Sports Science education is one of the reasons why athletes do not understand what a coach teaches. For example, the results of a study by Gibbons [4] found that US Olympic athletes were dissatisfied with the management of their training programme and had put pressure on them, resulting in their failure to achieve the expected performance. This proves that attention must be given to this aspect to avoid dissatisfaction with athletes or jeopardize their performance in any tournament.

Success coaches certainly capable of handling a good training programme for athletes and this is something considered as the key to athlete achievement. The leadership of the coaches also

exemplifies the athlete's achievements. The more comfortable the athlete with their coach, the higher the athlete's satisfaction with their performance in the sport. Leadership is widely studied in the management of work organizations such as leadership on employee ethics [7], leadership and creativity [8,9], and servant leadership with organizational goals [10,11] state that there are still few studies that focus on Transformational Leadership and Athlete Satisfaction. Several empirical studies of Transformational Leadership in sport have been explored in relation to several other variables, namely team unity [12,13], athlete welfare [14], commitment of sports workers [15], coach leadership and leadership behaviors [16] as well as leadership and internal motivation of athletes [17]. One of the studies that focused on transformational leadership and athlete satisfaction was adopted from [18] who found that there was a positive relationship between the two variables. However, this study is of small scale since it was conducted in Taiwan and used volleyball players as the subject of the study. Therefore, a scientific study is needed to understand the role of Transformational Leadership with Athlete Satisfaction.

Moreover, the use of technology in sports today is relatively new. The application of technology in sports is a platform to improve the performance of athletes and enable Malaysia to compete with the world's sports experts. If the elements of innovation along with the current cycle are not implemented in the sports industry, it is a disadvantage. Developing countries have long embraced technological innovations in sports and this is reflected in the performance of athletes in international sports. The importance of innovation in sports is an important element in the development of athletes either during training or competition [19]. As such, innovation is something that technology changes and relate with achievement especially within the organization. Studies on the relationship of innovation and organizational management have been studied by Dabic et al. [20] and Damanpour and Schneiderw [21]. In addition, studies by Angel et al. [22] found that innovation positively affects performance. This indicates that although the use of innovation as one of the variables has been widely used, its use as a variable in the sports industry remains unclear. Although innovation research has evolved over the past decade, there is little empirical research on innovation related to sports especially in Malaysia. Sports Innovation also contributes to

sports performance. Previous studies have shown that Sports Innovation has a positive relationship with global sports development [15], social participation and community health [23], with sports business activities [10], with assessment of sports performance [7] as well as with sports consumption products [24]. Meanwhile, [23] conducted qualitative studies on technology innovation, communication channels, screenings and ticket sales in the sports industry. There are still few studies that look at the relationship between Sports Innovation and Athlete Satisfaction. Therefore, research needs to be done to gain a deeper understanding of the relationship between Sports Innovation and Athlete Satisfaction and to see its role as an independent variable.

Therefore, in order to help UUM become one of the most recognized universities in sports, every student, coach or sports management member must create a body that really madly into sports, which for now UUM is not yet at that level. Thus, UUM's sports performance needs to be safeguarded and enhanced so that UUM is not viewed as a passive university and merely academic only. Ultimately, a large-scale creative effort towards designing, systematically and innovating the sports industry must be planned to meet the mechanism. Therefore, before any action is taken, a scientific study should be conducted to identify the causes of deterioration and dissatisfaction of athletes from the grassroots level. In general, this study aimed to identify factors that may affect athlete satisfaction in UUM. The objectives of this study also focus on Coach Management Training Programme, Transformational Leadership, Sports Innovations and Athlete Satisfaction. These objectives are detailed in the following three objectives:

- a) To see the relationship between Coach Management Training Programme and Athlete Satisfaction.
- b) To find out the relationship between Transformational Leadership and Athlete Satisfaction.
- c) To study the relationship between Sports Innovation and Athlete Satisfaction.

The contribution in this study list as below:

- a) Through this study, UUM will be able to address the issues that are at the root cause of the athlete's incompetence in sports, this will help them in creating the steps to improve the sports performance.

- b) This study is also expected to provide an opportunity for every officer, team manager and coach to identify their weaknesses in managing the training program provided.
- c) This study will provide an overview of the process of developing a training program that influences athletes' success and also guides them in designing training programs to prepare athletes in competition.
- d) Methodologically, this study contributes to a greater understanding of the measurement of coach management training programme, transformational leaderships and sports innovation variables through the formulation of unavailable measurement items.

The limitations in this study found that:

- a) This study cannot be generalizing for the whole population of athletes in Malaysia as this study only focus on UUM athletes.
- b) The theory used is more focused on the management body and not on the sports industry.
- c) The access to the respondents also take time as the study is done during the semesters break for the students.

This study used contingency theory and system theory to further strengthen the findings. According to Damanpour [25] contingency theory is a study of variables in management. This theory can help one to analyze a situation as well as the variables that need to be selected in making a decision. In the study conducted, the management factor of the coach training programme is one of the structures that can be applied through contingency theory where management translated in this situation is about how to handle the training programme in a better way. Vanessa [26] states that innovation is an important factor in contingency theory. He argues that the process of innovation used determines the effectiveness of structure in an organization. Innovation through contingency theory is a change that needs to be made in technology to ensure that it achieves its goals over time. This study using sports innovation factors found to be in line with the theory of contingency in the elements of technology. System theory is a type of theory that has three stages, namely input, process and output [14,27]. The input stage is the initial part of the system that acts as the operating force, the process stage is the process of processing input to produce output [28]. Different input criteria allow for different results even if they have the same purpose in a

particular system. Outputs have two forms, both physical and non-physical, which are outputs derived from the input operation process [28,10]. In the context of this study, the inputs described in this study are factors such as Coach Management Training Programme, Transformational Leadership and Sports Innovation. When these factors are activated, they act in a system that is considered a process for generating output. During the course of the programme, there may be several factors that influence their decision to be known as external factors. go through the process when team managers or coaches start working to manage the programme they design. During the course of the programme, there may be several factors that influence their decision to be known as external factors. From there, managers and coaches will receive criticisms and suggestions that are considered feedback for improvement from outside parties involved in their planning such as the athlete himself and the local sports critics. So is the transformational leadership in which coaches practice this style of leadership through systematic processes as they apply the characteristics that should be present in the transformational leadership dimension. In addition, sports innovation is also the input used in system theory for this study in the event of innovation in sport, the process taken to apply that innovation to the process in system theory. All the critique of innovation is feedback that can be used for improvement. Thus, the hypotheses develop in this study is that:

- a) There is significant relationship between Coach Management Training Programme and Athlete Satisfaction.
- b) There is significant relationship between Transformational Leadership and Athlete Satisfaction.
- c) There is significant relationship between Sports Innovation and Athlete Satisfaction.

## 2. METHODOLOGY

This study is a quantitative study as it is conducted through a survey method using self-administered questionnaire as the main instrument of the study. Quantitative use is more appropriate in this study because the researcher can arrange the questions that are asked, narrow the scope of the study, collect data obtained from the study subject and also can apply analytical numbers using objective statistics and thus avoid bias. Thus, it is more appropriate to validate and test the theory [29]. This study was conducted

using 42 UUM athletes as the subjects. The researcher approached the athlete personally by asking for help from the UUM Sports Center on the training schedule and attendance of the athlete at the sports center. The instruments for this study were questionnaires. A set of questionnaires for athletes is divided into 5 sections, Part A (demographics), Part B (Athlete Satisfaction), Part C (Coach Management Training Programme), Part D (Transformational Leadership), and Part E (Sports Innovations). This study uses the Likert Scale consists of five (5) priority points that are 1-strongly disagree, 2-disagree, 3-uncertain, 4-agree, 5-strongly agree. Through these various scales, the researcher can identify the agreement or disagreements that can be obtained from the respondents beyond the scale provided.

### 3. RESULTS AND DISCUSSION

Descriptive analysis was conducted based on the respondents' demographics. Among the questions in the demographic section were gender, age, race, education level, sports type, sports category, mode of engagement and level of engagement such as Table 1.

Descriptive analysis showed that 13 respondents were male athletes with 31.0% while female

athletes with 68.0% were 29. Besides, 26 (61.9%) of athletes aged 15-24 and 16 athletes with 38.1% aged 25-34. For the athletes Nations, Malay is 38 (90.5%), Indian 2 (4.8%) and Chinese and other ethnicities were 1 (2.4%). For education level, PMR is 1 (2.4%), SPM and STPM 3 (7.1%), Diploma 4 (9.5%), degree 29 (69.0%) and others are 2 (4.8%). For types of sports, 11 are from individuals (26.2) and 31 (73.8 %) are from team. For the elite sports category 8 (19.0%), 16 seniors (38.1%) and 18 teens (42.9%). Part-time athletes were 39 (92.9%) and full-time athletes were 3 (7.1%). Participation level was SUKMA 6 (14.3%) and 36 (85.7%).

The use of Cronbach's alpha values to identify the reliability of the tested questionnaire was used to assess the extent to which items in a set were acceptable and related to each other [30]. Reliability analysis was used to measure the level of understanding of the question among respondents. Furthermore, according to Sekaran et al. [31] and Chua Yan Piaw [33], values ranging from 0.6 and above are good and reliable. According to Sadowski [30] Cronbach's alpha was calculated in terms of the average correlation between items measuring the concept. Cronbach's alpha values indicated by the pilot study need to be statistically positive

**Table 1. Descriptive analysis**

<b>Demographic</b>	<b>Status</b>	<b>Frequency</b>	<b>Percentage</b>
<b>Gender</b>	Men's	13	31.0
	Female	29	68.0
<b>Ages</b>	15 - 24 Years	26	61.9
	25 - 34 Year	16	38.1
<b>Race</b>	Malay	38	90.5
	Chinese	1	2.4
	India	2	4.8
	Other	1	2.4
<b>Education Level</b>	PMR	1	2.4
	SPM	3	7.1
	STPM	3	7.1
	Diploma	4	9.5
	Degree	29	69.0
	Other	2	4.8
<b>Types of Sports</b>	Individual	11	26.2
	Team	31	73.8
<b>Sports Category</b>	Elite	8	19.0
	Senior	16	38.1
	Teen	18	42.9
<b>Sports Mode</b>	Part-Time Athletic	39	92.9
	Full-Time Athlete	3	7.1
<b>Engagement Level</b>	SUKMA	6	14.3
	Other	36	85.7

**Table 2. Reliability statistics**

	Cronbach's alpha	Cronbach's alpha based on standardized items	N
Athlete Satisfaction	.922	.921	20
Coach Management Training Programme	.965	.967	22
Transformational Leadership	.976	.977	20
Sports Innovation	.929	.929	20

**Table 3. Correlation coefficients**

		Athlete satisfaction
Athlete Satisfaction	Pearson Correlation	1
	Sig. (2-tailed)	
	N	42
Coach Management Training Programme	Pearson Correlation	.612**
	Sig. (2-tailed)	.000
	N	42
Transformational Leadership	Pearson Correlation	.499**
	Sig. (2-tailed)	.001
	N	42
Sports Innovation	Pearson Correlation	.565**
	Sig. (2-tailed)	.000
	N	42

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

and acceptable at least 0.7 to be considered reliable and valid so that researchers can continue for further analysis [31]. Table 2 shows the Cronbach's alpha values for the Athlete Satisfaction survey questionnaire used 0.922, Coach Management Training Programme 0.965, Transformational Leadership 0.976 and Sports Innovation 0.929. Cronbach's alpha values for all variables were greater than 0.7, indicating valid and reliable survey questions.

The study was conducted to look at the correlation between the variables dependent on Athlete Satisfaction and the independent variables of Coach Management Training Programme, Transformational Leadership and Sports Innovation. Correlation is a statistical technique used to indicate the strength of a variable and is used to study the relationship between independent variables and dependent variables. Correlation test was performed with a 5% 2-tailed significant level. Test results show that Athlete Satisfaction has a positive relationship with Coach Management Training Programme, Transformational Leadership and Sports Innovation. Correlation for Athlete Satisfaction and Coach Management Training Programme was 0.612 with p value of 0.001 <0.05. For athlete satisfaction and

transformational leadership, p = 0.001 was also less than 0.05. For sports innovation variables, p = 0.000, less than 0.05. This indicates that there is a positive significant relationship between Athletes' Satisfaction with Coach Management Training Programme, Transformational Leadership and Sports Innovation. Thus, all the hypotheses are accepted. This study answers for the objectives is that, there is significant relationship between Coach Management Training Programme, Transformational Leadership and Sports Innovation with Athlete Satisfaction. This study suggest a future research should focus on athletes under the age of 12 because the perceptions from the young athletes could be differ from the current study. Besides, the future study should be done using different variables such as athlete performance as dependent variables and different types of leadership as independent variables. Furthermore, the qualitative study or mixed method can be done in the future studies to varies the results.

#### 4. CONCLUSION

Athlete satisfaction is an important factor in determining the country's sports performance. This is because, when the athlete is satisfied, the performance shown will be even more

impressive. Factors such as Coach Management Training Programme, Transformational Leadership and Sports Innovation have been found to have a positive impact on athlete satisfaction. The leader should focus on the training programme and their leaderships styles as it can give impacts towards the athlete satisfactions. Also, the sports innovation must be up to date with athletes training and performance because it also influences the athletes' satisfactions. Therefore, it is important for those responsible parties to ensure that the proven elements form the basis of their training and management of sports been applied for the sake of sports. Nevertheless, the UUM must play a more active and dynamic role in seeking new talents for the country in the future. Similarly, the University of Malaysia (MASUM) Sports Council also plays a role in highlighting quality athletes for the country. With the combined efforts of the two bodies, the country will certainly not be missing out on new talents for national sports. Efforts to cultivate sports in the community need to be initiated at a young age. Approaches through sports and physical education in institutions need to be enhanced to identify potential young talent. The studies in this areas should always be done from time to time to ensure the performance of the sports in line with the goals to be a nation with sports excellence.

## COMPETING INTERESTS

Authors have declared that no competing interests exist.

## REFERENCES

1. Ahmad Shabery Cheek. Sports industry to play more prominent role in Malaysia's economic growth; 2011. Available:<http://www.theborneopost.com/2011/07/29/sports-industry-to-play-more-prominent-role-in-malaysia%E2%80%99s-economic-growth/> pada 8 Oktober 2018
2. Axello Tacts. FIFA Sahkan Separuh Daripada Populasi Manusia Di Bumi Menonton Piala Dunia. Dipetik pada 22 Disember daripada; 2018. Available:<https://semuanyabola.com/fifa-sahkan-separuh-daripada-populasi-manusia-di-bumi-menonton-piala-dunia-2018/>
3. Anuar Din. Gaya kepimpinan, kepuasan kerja dan pengurusan program latihan jurulatih terhadap kepuasan atlet sekolah sukan (Tesis doktor Falsafah yang tidak diterbitkan). Sekolah Pendidikan dan Pembangunan Sosial, Universiti Malaysia Sabah, Kota Kinabalu, Sabah; 2010.
4. Gibbons T, McConnel A, Forster T, Riewald ST, Peterson K. Reflections on success: US Olympians describe the success factors and obstacles that most influenced their Olympic development (Vol. Report phase II). Colorado Springs: United States Olympic Committee; 2003.
5. Greenleaf C, Gould D, Dieff enbach K. Factors influencing Olympic performance: Interviews with Atlanta and Nagano U.S. Olympians. *Journal of Applied Sport Psychology*. 2001;13:154–184.
6. Cakioglu A. Leadership and satisfaction in soccer: Examination of congruence and players' position (*Master thesis* yang tidak diterbitkan). Department of Physical Education and Sport: Middle East Technical University; 2003.
7. Hoch JE, Bommer WH, Dulebohn JH. Do ethical, authentic and servant leadership explain variance above and beyond Transformational Leadership? A metaanalysis. *Journal of Management*. 2018; 44(2):501-529. DOI: 10.1177/0149206316665461
8. Abdul Majeed, Sabarani Ghazali. The Mediating Role of Intrinsic Motivation between Transformational Leadership And Creativity, *Acta Information Malaysia*. 2017; 1(1):01-03.
9. Tatiane Baseggio Crespi, Priscila Rezende da Costa, Taísa Scariot Preusler, Geciane Silveira Porto. The alignment of organizational structure and R&D management in internationalized public company: The EMBRAPA case *Innovation & Management Review*, 2019;16(2):193-216. Available:<https://doi.org/10.1108/INMR-07-2018-0046>
10. Stenling A, Tafvelin S. Transformational leadership and well-being in sports: The mediating role of need satisfaction. *Journal of Applied Sport Psychology*, 2014;26(2): 182-196.
11. Smith MJ, Arthur CA, Hardy J, Callow N, Williams D. Transformational leadership and task cohesion in sport: The mediating role of intrateam communication. *Psychology of Sport and Exercise*. 2013;14:249–257.
12. Cronin LD, Arthur CA, Hardy J, Callow N. Transformational leadership and task cohesion in sport: The mediating role of inside sacrifice. *Journal of Sport & Exercise Psychology*. 2015;37:23–36.

13. National Sports Institute. Background of National Sports Institute from the Sports Innovations Perspective; 2019. Available:<http://new.isn.gov.my>
14. Schoderbek. Management system conceptual considerations, Business Publications; 1985.
15. Kim S, Magnusen M, Andrew D, Stoll J. Are transformational leaders a double edged sword? Impact of transformational leadership on sport employee commitment and job satisfaction. *International Journal of Sports Science & Coaching*. 2012;7(4):661-677.
16. Bass B, Riggio R. Transformational leadership. Mahwah, Lawrence Erlbaum; 2006.
17. Charbonneau D, Barling J, Kelloway EK. Transformational leadership and sports performance: The mediating role of intrinsic motivation. *Journal of Applied Social Psychology*. 2001;31:1521–1534.
18. Kao S-F, Tsai C-Y. Transformational Leadership and Athlete Satisfaction: The Mediating Role of Coaching Competency, *Journal of Applied Sport Psychology*. 2016; 28:469–482.
19. Mariana MB, Sabina M, Ingrid I. Innovation in the Context of World Sports Development. The European proceedings of social & behavioural sciences. ICPEK 2015: 5th International Congress of Physical Education, Sports and Kinetotherapy; 2016.
20. Dabic M, Potocan V, Pavicic J, Nedelko Z. Personal values as predictors of managers' innovativeness – from theory to practice. In: 2019 International Conference of the IEEE Technology and Engineering Management Society (TEMSCON 2019), Atlanta, Georgia, United States; 2019.
21. Damanpour F, Schneiderw M. Phases of the Adoption of Innovation in Organizations: Effects of Environment, Organization and Top Managers. *British Journal of Management*. 2006;17:215–236.
22. Angel Martinez-Sanchez, Manuela Perez-Perez, Silvia Vicente-Oliva. Absorptive capacity and technology: influences on innovative firms. *Management Research: Journal of the Iberoamerican Academy of Management*; 2019. Available:<https://doi.org/10.1108/MRJIAM-02-2018-0817>
23. Anne T. Innovation for Social Inclusion in Sport. *Innovation development books*. 2016; 42-58.
24. Sekaran U. *Research Methods for Business: A Skill Building Approach*. New York: John Wiley & Son; 2015.
25. Damanpour F. Organizational complexity and innovation: Developing and testing contingency models, models, *Management Science*. 1996;5(42).
26. Vanessa R. Sport innovation: the role of social entrepreneurship and creativity in fostering sport related business activities. Abstract for the Research Colloquium on Societal Entrepreneurship and Innovation at RMIT; 2014.
27. Sonali Shah. Sources and patterns of innovation in a consumer products field: Innovations in Sporting Equipment. Sloan Working Paper #4105; 2000.
28. Muslim T, Pasaman S. Penerapan dan pendekatan teori sistem: studi kasus universitas hkbp nomensen. Fakultas Teknik Universitas Sumatera Utara; 2004.
29. Creswell JW. Educational research planning, conducting and evaluating quantitative and qualitative research. New York: Pearson; 2017.
30. Sadowski P. System theory as an approach to the study of literature: origins and functions of literature, E. Mellen Press, Lewiston NY; 1999.
31. Sekaran U. *Research Methods for Business :A Skill Building Approach*. New York: John Wiley & Son; 2010.
32. Chua Yan Piaw. Kaedah dan statistik penyelidikan buku 1: Kaedah penyelidikan. Kuala Lumpur: Mc Graw Hill; 2006.

© 2019 Zakinuddin and Ghazali; This is an Open Access article distributed under the terms of the Creative Commons Attribution License (<http://creativecommons.org/licenses/by/4.0>), which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

*Peer-review history:*  
The peer review history for this paper can be accessed here:  
<http://www.sdiarticle4.com/review-history/51551>