Student Perception about Higher Education Innovation: A Descriptive Study

Richard Andrew^{1*} Michelle Claudia¹ Rini Tri Hastuti²

ABSTRACT

Nowadays, higher education administrators faced high global challenges and this situation similar with the other business and social sectors. All of those administrators must prepare solutions and innovations to sustain in post-normalization era. This research objective is to find the urgency of innovation as general for higher education academic and non-academic environments. The research used purposive sampling with descriptive analysis method and took 145 nominal samples from Universitas Tarumanagara students. There are plenty of innovation in this research such as marketing, digital infrastructure, learning process, curriculum, student organization, education administration and education facilities. Overall, research findings explain the big benefit of education innovation for the sustainable development of higher educations.

Keywords: Innovation Study, Higher Education Administrator

1. INTRODUCTION

Global problems have the impact of changing the way of working in the socio-economic life of the community [1]. This of course includes the education sector which faces unanticipated challenges that are accompanied by lack of opportunities for growth [2]. On the other hand, in recent years, education policy has received wide criticism [3].

One way to overcome this global problem is to innovate. This innovation is related to many things ranging from job satisfaction, communication, human relations, leadership to motivation [4]. However, adopting an innovation is highly dependent on several factors other than the innovation itself, namely the user and the way in which the innovation is delivered [5].

Fernández [6] mentions that education only works for the majority of the population and not for the entire population. Of course, every educational institution has an interest in ensuring students learn effectively [7]. This is because education has a significant role for the future of mankind [8]. There are so many new ways to innovate in education ranging from improvement, modernization, maintaining privacy and discovering the potential of the sector [9]. As for maintaining the continuity of small and medium-sized businesses, educators and interactions have a role and contribution to even improve these businesses [10]. As an alternative, the use of the internet has become massive in all fields [11].

Not only the internet, lecturers at the university level are also challenged to increase adaptation to a student-centered approach [12]. Of course the relationship between universities and companies today can be carried out with

many diverse activities and understanding specific types of interactions can provide important innovative outcomes such as workforce training or collaborative research [13].

Lemay & Moreau [14] explained that short-term improvements can increase morale to implement innovations that show progress and successful results as a contribution to a new curriculum. Kahn [15] states that innovation is a result, innovation is a process and innovation is a mindset. It was stated by Rajapathirana & Hui [16] that the relationship between innovation capability, type of innovation and firm performance is strong and significant. Binz & Truffer [17] explain that the global innovation system has four important elements, namely knowledge, financial investment, market formation and legitimacy.

Research conducted by Parrilli & Alcalde Heras [18] states that the contribution of the fields of science and technology has a strong influence on producing technical innovations, while the learning process with practice, use and interaction has a strong influence on producing non-technical innovations. Nieves & Diaz-Meneses [19] suggest that collective knowledge has a direct influence on marketing innovation and has an indirect effect on learning capabilities.

De Wit [20] states that in the last decade, increased globalization and regionalization of the economy and society combined with the need for knowledge created a strategic context for approaches to internationalization of higher education. The results of research from Ayllón et al [21] stated that there was a positive and strong

¹Management Department, Faculty of Economics, Universitas Tarumanagara, Jakarta 11470, Indonesia

²Accounting Department, Faculty of Economics, Universitas Tarumanagara, Jakarta 11470, Indonesia

^{*}Corresponding author. E-mail: richarda@fe.untar.ac.id



relationship between achievement with teacher involvement and student self-efficacy.

According to Gleason [22], the impact of the fourth industrial revolution on the economy and the environment requires drastic consideration of the college curriculum so that students can analyze and predict the evolution of technological, environmental and social systems. Furthermore, according to Borges et al [23], student organization activities open interest in networking between students, practice concepts taught in college classes and add practice experience to work on a project basis and create value for sustainable self-development.

Owens [24] finds that universities currently play a key role in achieving the goal of inclusive, fair and quality education for all. From all of the narations above, researchers found the benefit of sustainable development by creating the innovative education environment. This align with the title to determine the perception of higher education innovation.

2. METHOD

This research with Tarumanagara University as the research subject took samples with purposive sampling method for 145 respondents. The analysis technique is descriptive analysis by using Google Forms and nominal measurement scale in several questions.

The forms of marketing innovation are Scholarships from Academic Achievements, Scholarships from Non-Academic Achievements, Scholarships for Underprivileged Students, Scholarships for Foreign Students, Full Scholarships for Prospective Lecturers/Employees, Registration Fees Discounts when Direct Marketing, Postgraduate Fees Discounts at Institutions the Same, and Special Discounts for New Study Programs.

The forms of innovation in the learning and teaching process are Increasing the Number and Quality of Assignments, Increasing the Number and Quality of Interactions in the Classroom, Increasing the Number and Quality of Interactions Outside the Classroom, Increasing Privacy during Personal Discussions, Increasing Educational Facilities for Teaching and Learning, Optimizing The Number of Students (15 -20 Students), Sharing Experiences related to the Materials Discussed, and Increasing the Variety of Pedagogical Instruments Used.

The forms of digital innovation are Digitizing Content for Teaching and Learning Processes, Digitalizing Marketing through Websites and Social Media, Digitalizing Marketing through Conventional Mass Media, Digitizing Transactions for Ease of Financial Administration, Digitizing Student Activities Conducted by Students, Increasing Digital Security and Privacy in Higher Education, and Information Improvement Regarding Digital Facilities in Higher Education.

The forms of educational curriculum innovation are Variations of Actual Elective Courses with the World of Work, Opportunities and Ease of Internships in Higher Education, Opportunities and Ease of Internships outside Higher Education, Opportunities to Compete among Students

with Companions, Opportunities to Conduct Collaborative Research with Lecturers, and Opportunities for Community Service Activities with Lecturers.

The forms of student activity innovation are Ease of Implementation of Student Activities within Higher Education, Ease of Implementation of Student Activities outside of Higher Education, Security and Assistance from Lecturers/Leadership for Student Activities, Financial Subsidies for Implementation of Student Activities, Improvement of Neatness and Speed of Administration of Student Activities, and Improving Student Activity Standards for Achievement for Higher Education.

The forms of educational administration innovation are Speed and Accuracy of Education Administration Information, Ease of Administrative Completion through Higher Education Applications, Increased Security and Privacy of Digital Education Administration, Clarity and Hospitality of each Section of Education Administration, Special Additional Subsidies for Students with Orderly Administration, and Optimization and Centralization College Telephone Operator System.

The forms of educational equipment innovation are Standard Learning Technology Facility Packages in Higher Education Entrance Fees, Textbooks and Scientific Journal Packages in Tuition Fees per Semester, Periodic Health Checking Packages in Tuition Fees per Year, Additional Digital Privacy Security Facilities for Higher Education Students, Facilities Additional for People with Special Needs in Higher Education, Multi-Function Student Card Facilities in Higher Education, as well as Education Fee Packages including Quotas for Distance Learning.

3. RESULT & DISCUSSION

The results of the study show that there are many innovations in higher education. This is indicated by the results of the questionnaire which stated that they strongly agree (67.6%) and agree (31%). Only 1.4% thought otherwise. This shows that the role of invention, commercialization and adaptation does not only apply in the business sector but also in the non-profit sector such as higher education, especially those that are challenged to create their own income such as the private higher education sector.

When this research is broken down into several variables, it can be seen through each variable that marketing innovation is critical for universities to survive in the midst of the times. In detail, scholarships for underprivileged students (53.1% of respondents chose this as one of the most important instruments for higher education marketing) is the most important thing followed by other indicators.

Innovation in the teaching and learning process in universities is even more important than marketing



innovation and this shows that the quality of the teaching and learning process tends to be even more important than the final results or qualifications of a lecturer. In detail, the innovations that are most needed are educational facilities that can be improved, starting from the equipment or equipment used in education, especially when interacting face-to-face under normal conditions (49.7% of respondents consider this as the most important) apart from other indicators.

Digital innovation, especially in special conditions faced by the world today, is more important than marketing innovation, although it is not as important as innovation in the teaching and learning process. The most important point that is digitized is content in the teaching and learning process (59.3% consider this point the most important compared to other indicators) so that the role of the course coordinator is quite important to bridge the equality of content and also improve the quality of the content used in each course periodically, either in the medium or long term. Curriculum innovation is only considered quite important in higher education, there are even 4.1% of respondents who do not agree with sustainable curriculum innovation. In general, this may be felt by the respondents to be financially burdensome because the curriculum changes too quickly, causing some educational instruments to also be actualized and this actualization usually requires a new additional cost. Not to mention the relatively fast curriculum changes that forces educators to master several new variations of science related to new fields so that the process of transferring knowledge to students runs effectively.

However, in general, innovation in the curriculum is still considered quite important as evidenced by two factors that get quite high enthusiasm by respondents, namely the addition of variations in actual elective courses according to the needs in the world of work (70.3% of respondents consider it important) and the opportunity to do internships outside the university area are in accordance with the fields taught by each student (53.8% of respondents consider it important). This is also what causes a number of study programs internship courses and a variety of elective courses become one of the competitive advantages of these study programs besides other indicators.

In contrast to curriculum innovation which is only considered important enough, student activity innovation is considered important. There are two main factors in this case, namely the ease of carrying out student activities within the university environment (66.9% of respondents consider it important) and also outside the university environment (51% of respondents consider it important). This indicates that there are activities that can be carried out on campus, especially those with academic nuances such as seminars and training and there are several activities that can be carried out outside campus, especially those with non-academic nuances such as music festivals and joint sports activities.

If you look at some of these activities, of course, they can be carried out in a joint association such as a student organization or student activity unit. However, some of these activities will also be more optimal in attracting many students if they are carried out in a freelance volunteer-based scheme that is not related to student organizations or student

activity units. Of course, with or without student organizations and student activity units, all of these student activities refer to increasing the experience of group activities or increasing achievement in general either individually or in groups for higher education or higher prestige than that.

Unlike before, educational administration innovation has become something that is considered only quite important. In fact, there are around 3.4% of respondents who do not agree with educational administration innovation. This is most likely related to the potential for additional replacement workers which can be eroded by digitalization and simplification of education administration. If we look at the last few periods, there is a tendency for universities to reduce the number of non-academic workers to be outsourced or replaced with academic workers as part of their additional tasks that increase the income of the educators.

However, the speed and accuracy of educational administration information remains an absolute necessity for respondents (66.2% who consider it important) in addition to the clarity and friendliness of every part of the education administration in higher education (56.6% who consider it important). This shows that the role of digitizing education administration is a inevitable dilemma in universities. Of course, the role of humans remains the main hope in the education sector because that is where hospitality can be trained and then implemented throughout the academic community in higher education. Apart from these two dominant factors, there are several other important indicators.

Educational equipment innovations, which are actually considered to be relatively the most important when compared to innovations in other parts. It is evident that the respondents who voted strongly agreed were very large because the rejuvenation of educational facilities has become one of the things that are considered the most common for adaptation to the world of work. However, unexpectedly 0.7% of respondents did not agree with the innovation of educational equipment. The biggest possibility of this is the cost constraint currently faced not only by educational institutions but also by other sectors. The innovations in this sector can lead to a tremendous increase in the costs charged to students, especially those who operate as the private sector.

However, there are two main factors that have received quite a high spotlight, namely the facilities of technological equipment and equipment which are expected by students to be a main package in starting educational activities (60.7% of respondents who consider it important) and also the multifunctional student card facility (55.9 % of respondents who consider it important). Regarding technological facilities and equipment, it is suspected that the level of difficulty in obtaining smartphones and other digital devices such as laptops or computers differs from one region to another, as well as from one country to another.



Not to mention the different expectations of each lecturer who requires additional applications on these different devices, especially because the process in the laboratory has shifted to online. In contrast to technological equipment, the multifunctional student card becomes a realistic expectation of the students. If at this time the student card is only part of the identity, in the future this student card is expected to be a means to get discounted prices for several affiliates from universities.

In addition, the student card can of course be a medium for borrowing books and physical journals in the library other than of course for financial administration processes such as paying for meals in the campus canteen area, paying for parking in the campus parking area and paying other administrative fees in the campus environment. All of these things make student cards valuable and even tend to be kept as a keepsake even after graduating from the college. Not to mention the probability that the student card will become one of the means to open the door to certain educational areas such as the library area and discussion room.

Apart from the points described above, there are several points that are quite worthy to be considered by universities for implementation. These points along with the respondent's favorite level are Scholarships for Academic Achievement (49%), Scholarships for Non-Academic Achievements (48.3%), Digitalization of Marketing through Websites and Social Media (44.8%), Digitizing Student Activities (47.6%), Opportunity to Work Part Time or Permanently in Higher Education (49%), Financial Subsidy for Student Activities (42.1%), Ease of Completion of Digital Education Administration (47.6%), Enhanced Security and Privacy of Education Administration (40.7%), as well as the Tuition Fee Package including Textbooks and Scientific Journals (45.5%).

4. CONCLUSION

It can be concluded that innovations made by education providers are very important and have benefits for sustainable adaptation. This at least includes innovations in various fields of marketing, teaching and learning, digital, curriculum, student activities, educational administration and educational equipment. For the long-term development of innovation in the field of large educational infrastructure and a cross-sectional performance appraisal system for the academic community, it is worthy of consideration for future research in several higher educations.

REFERENCES

- [1] Wiryanto, W. (2019) 'Replikasi Model Inovasi Pelayanan Administrasi Kependudukan Di Indonesia', *INOBIS: Jurnal Inovasi Bisnis dan Manajemen Indonesia*, 3(1), pp. 27–40. DOI: 10.31842/jurnal-inobis.v3i1.118.
- [2] Ramirez-Montoya, M. S. (2020) 'Challenges for Open Education with Educational Innovation: A Systematic

- Literature Review', *Sustainability (Switzerland)*, 12(17). DOI: 10.3390/su12177053.
- [3] Moreno-Guerrero, A. J. *et al.* (2020) 'Flipped Learning Approach as Educational Innovation in Water Literacy', *Water (Switzerland)*, 12(2). DOI: 10.3390/w12020574.
- [4] Avdimiotis, S. and Papadopoulou, E. (2020) 'Educational Innovation affects Leadership and Interpersonal Relations in an Experimental School in Northern Greece', *International Journal of Educational Research Review*, 5(1), pp. 61–69. DOI: 10.24331/ijere.659214.
- [5] Agélii Genlott, A., Grönlund, Å. and Viberg, O. (2019) 'Disseminating digital innovation in school leading second-order educational change', *Education and Information Technologies*. Education and Information Technologies, 24(5), pp. 3021–3039. DOI: 10.1007/s10639-019-09908-0.
- [6] Fernández, A. H. (2019) 'Good Practices, Innovation or Scientific Research in Education? A Conceptual Reflection', in *CUICIID*, pp. 132–135. Available at: http://hdl.handle.net/2117/182023.
- [7] Okoye, K., Nganji, J. T. and Hosseini, S. (2020) 'Learning Analytics for Educational Innovation: A Systematic Mapping Study of Early Indicators and Success Factors', *International Journal of Computer Information Systems and Industrial Management Applications*, 12, pp. 138–154.
- [8] Cortés-Robles, G., García-Alcaraz, J. L. and Giner Alor-Hernández (2019) *Managing Innovation in Highly Restrictive Environments*. Edited by J. (Aveiro) Paulo Davim. Berlin: Springer. Available at: http://link.springer.com/10.1007/978-3-319-93716-8.
- [9] Schröder, A. and Krüger, D. (2019) 'Social Innovation as a Driver for New Educational Practices: Modernising, Repairing and Transforming the Education System', *Sustainability (Switzerland)*, 11(4). DOI: 10.3390/su11041070.
- [10] Stål, H. I. and Babri, M. (2020) 'Educational Interventions for Sustainable Innovation in Small and Medium Sized Enterprises', *Journal of Cleaner Production*. Elsevier Ltd, 243, p. 118554. DOI: 10.1016/j.jclepro.2019.118554.
- [11] Andrew, R. (2018) 'Inovasi untuk Media Sosial Indonesia', *Jurnal Muara Ilmu Ekonomi dan Bisnis*, 2(1), p. 29. DOI: 10.24912/jmieb.v2i1.1533.
- [12] Santos, J., Figueiredo, A. S. and Vieira, M. (2019) 'Innovative Pedagogical Practices in Higher Education: An Integrative Literature Review', *Nurse Education Today*, 72(February 2018), pp. 12–17. DOI:



10.1016/j.nedt.2018.10.003.

- [13] Moon, H., Mariadoss, B. J. and Johnson, J. L. (2019) 'Collaboration with higher education institutions for successful firm innovation', *Journal of Business Research*, 99(November 2016), pp. 534–541. DOI: 10.1016/j.jbusres.2017.09.033.
- [14] Lemay, J. and Moreau, P. (2020) 'Managing a Curriculum Innovation Process', *Pharmacy*, 8(3), p. 153. DOI: 10.3390/pharmacy8030153.
- [15] Kahn, K. B. (2018) 'Understanding Innovation', *Business Horizons*, 61(3), pp. 453–460. DOI: 10.1016/j.bushor.2018.01.011.
- [16] Rajapathirana, R. P. J. and Hui, Y. (2018) 'Relationship Between Innovation Capability, Innovation Type, and Firm Performance', *Journal of Innovation and Knowledge*. Journal of Innovation & Knowledge, 3(1), pp. 44–55. DOI: 10.1016/j.jik.2017.06.002.
- [17] Binz, C. and Truffer, B. (2017) 'Global Innovation Systems—A conceptual framework for innovation dynamics in transnational contexts', *Research Policy*, 46(7), pp. 1284–1298. DOI: 10.1016/j.respol.2017.05.012.
- [18] Parrilli, M. D. and Alcalde Heras, H. (2016) 'STI and DUI Innovation Modes: Scientific-technological and Context-specific Nuances', *Research Policy*. Elsevier B.V., 45(4), pp. 747–756. DOI: 10.1016/j.respol.2016.01.001.
- [19] Nieves, J. and Diaz-Meneses, G. (2016) 'Antecedents and Outcomes of Marketing Innovation: An Empirical Analysis in the Hotel Industry', *International Journal of Contemporary Hospitality Management*, 28(8), pp. 1554–1576. DOI: 10.1108/IJCHM-11-2014-0589.
- [20] De Wit, H. (2019) 'Internationalization in Higher Education, a Critical Review', *SFU Educational Review*, 12(3), pp. 9–17. DOI: 10.21810/sfuer.v12i3.1036.
- [21] Ayllón, S., Alsina, Á. and Colomer, J. (2019) 'Teachers' Involvement and Students' Self-efficacy: Keys to Achievement in Higher Education', *PLoS ONE*, 14(5), pp. 1–11. DOI: 10.1371/journal.pone.0216865.
- [22] Gleason, N. W. (2018) Higher Education in the Era of the Fourth Industrial Revolution, Higher Education in the Era of the Fourth Industrial Revolution. DOI: 10.1007/978-981-13-0194-0.
- [23] Borges, J. C. *et al.* (2017) 'Student organizations and Communities of Practice: Actions for the 2030 Agenda for Sustainable Development', *International Journal of Management Education*, 15(2), pp. 172–182. DOI: 10.1016/j.ijme.2017.02.011.
- [24] Owens, T. L. (2017) 'Higher Education in the Sustainable Development Goals Framework', *European*

Journal of Education, 52(4), pp. 414–420. DOI: 10.1111/ejed.12237.