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The Role of Universities in Fostering Research and Development of Social Innovation in Malaysia

By

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Abstract

Social innovation is a new discipline that aims to bridge the gap between societal requirements and modern technology. The use of social innovation is a strong component for universities that are committed to producing, disseminating, and making knowledge more meaningful. This paper examines the role of universities in supporting social innovations into research and development activities through support from the universities. Using quantitative method through descriptive statistical analysis on the data collected. In the present study, a total of 237 lecturers from eight public universities in Malaysia completed the questionnaire. Result showed, the university's strong support for research that satisfies the requirements of social innovation. The University's role is also to contribute with various types of resources and inputs to foster new social innovation ideas. Therefore, researchers and stakeholders must use the platform to establish collaboration with community to ensure that the research conducted fits societal demands and solves its issues.

Keyword: University, Higher Education Institute, Social Innovation, Research

Introduction

High-tech changes, globalization, and the elderly population in society have led to social imbalances (BEPA, 2010). Technology innovation requires social innovation in perfecting the development of innovation and knowledge in a city (van der Have and Rubalcaba 2015; Klein, Tremblay, and Bussieres 2010). Fagerberg (2012) explained that the integration of social innovation in innovation studies is defined as the scientific study of the methods or ways in which innovation occurs and the important factors that affect economic, social and environmental development (van der Have & Rubalcaba, 2015).

The European Union (EU) places emphasis on the development of social innovation by renewing the Higher Education agenda (2017), namely 'Institutes of Higher Learning (HEIs) should be involved in the development of their cities and regions, whether through development strategy contributors, cooperation with businesses, the public sector and volunteer or support community dialogue on societal issues'. This agenda enables the academic community to gain incentives, appreciation, and career development if it can meet the goals of this higher education agenda (Leubolt et al., 2017)

Social innovation refers to innovative activities and services that are driven with the goal of meeting social needs and are mostly spread through organisations which primary purpose is social (Mulgan, 2006). Meanwhile, Unceta et al. (2016) defined social innovation as new products, processes and methods developed creatively and sustainably, offering better solutions to one or several social demands. Besides that, Howaldt et al. (2016) asserted that the concept of social innovation involves the relationship of technology and business innovation aimed at meeting social demands, societal challenges and systematic change addressed by actors, networks and governance (including the role of social entrepreneurs, networks, and consumer engagement) for social change and development through a dynamic process.

The concept of social innovation is more comprehensive through Hochgerner's (2014) definition, which is a new practice to solve societal challenges that is adopted and used by the individuals, social groups and organisations involved. This concept is used to refer to new ideas (products, services, and models) developed to meet unmet social needs (Matei & Antonie, 2015; The Young Foundation, 2012). Howaldt et al. (2016) outlined five key dimensions in social innovation. First, identify the needs and challenges of the community. Second, identify the resources, capabilities, and constraints available to develop social innovation. Third, social innovation requires dynamic processes and involves creative social strategies (Pue et al., 2016). The fourth is to represent the elements of actors, network relationships, and governance that are important actors in the implementation of social innovation. Lastly, is the concept and understanding of social innovation among stakeholders where the dimensions and cores developed must be aimed at meeting social wants and needs as suggested by Morawska-Jancelewicz (2021) through the context of the quadruple/quintuple helix.

Bayuo et al. (2020) studied the relevance of the role of HEIs, namely teaching, research, and knowledge transfer with social innovation. The relevance of HEI teaching to social innovation results in a new curriculum in social innovation, integrates social innovation in existing curriculum, and provides the latest digital tools for education. The impact will cater to different educational needs and enable marginalized groups of students, disabilities or with diverse backgrounds to be involved in education in HEIs. Students are also agents of change, good citizens, and supporters of social innovation. The relationship of social innovation with

teaching, research and knowledge transfer can equip society with relevant knowledge so that it can solve problems in the future.

The Emergence of Social Innovation

Concepts and research regarding innovation have evolved (Etzkowitz, 2003; Yeşil et al., 2013) and greatly exceed the technology-oriented paradigms formed through industrial societies (Williams & Edge, 1996; Geels, 2004; Perry, 2006; Theodorakopoulos et al. al., 2012). The 2011 Vienna Declaration came about 100 years after Schumpeter formulated the Economic Theory of Innovation. There is a transition of the industrial sector to community-based knowledge and services (van der Have & Rubalcaba, 2015). A paradigm shift increases the importance of social innovation over technological innovation (Franz et al., 2012). Technology innovation requires social innovation in perfecting the development of innovation and knowledge in a city (Geels, 2004; Klein et al., 2010; van der Have & Rubalcaba, 2015). Fagerberg (2012) stated that the integration of social innovation in innovation studies is defined as the scientific study of how innovation occurs and what important factors affect the economic, social and environmental (van der Have & Rubalcaba, 2015).

The emergence of social innovation is a string from the theory of innovation development inspired by Schumpeter in 1911 (Hochgerner, 2014). All innovations are relevant towards society and social but not all innovations refer to economic mechanisms and technical processes. The issues of social change, development, social crisis, resource challenges and solutions require a shift from economic-oriented innovation to social and community orientation. Even the economic element lies in the discussion of community well-being (Howaldt et al., 2016). Various initiatives, organisations, policies, and institutions were created to discuss social innovation especially to meet the sustainable development goals (SDGs). Among the earliest were the Institute of Social Invention London (1985), Center for Social Innovation Vienna (1990), Social Innovation Ltd. Dortmund (1994) and Stanford University Center for Social Innovation (2000) (Hochgerner, 2014). A high-impact social innovation development initiative in Asia is the Asian Social Innovation Award, Hong Kong (2011). In general, social innovation was discussed in depth during the National Innovation Exhibition and Conference by the Ministry of Science, Technology and Innovation, in Malaysia on 2 November 2014. The study of society aims to identify existing societal needs by prioritising urgent unmet needs.

The Theoretical, Empirical and Policy Foundations for Social Innovation in Europe (TEPSIE) outlines five elements in the core of social innovation development, namely innovation, implementation of ideas, meeting community needs, effectiveness, and enhancing community capacity to act. First, reform does not mean universal or absolute novelty, but leads to the acceptance of something new in the political, social or cultural context in which cases of social innovation arise. Although for some it has spread and been accepted in other countries, it can be considered new locally if it did not exist before. Second, the implementation of ideas through the practical application of social innovation ideas. The ideas created and tested must be applied to the field to qualify as social innovations. This also implies that the application needs to be sustainable.

Third, the ideas meet the needs of the community. Research that meets community needs and effective outcomes illustrate the success of social innovation. Fourth, effectiveness, i.e., the element of focus on the idea of effective social innovation in the form of outcomes (such as quality, satisfaction, cost, and impact) versus existing solutions. Fifth, increase the

community's ability to act. Social innovation is achieved not only by meeting unquenchable social needs in an effective way, but also by applying innovative processes to the whole society. Indeed, social innovation encompasses an inclusive process involving consumers, stakeholders, minorities, and marginalized people to enhance the capacity of society as a whole, as it ultimately relates to the empowerment dimensions of social innovation and community resilience (The Hope Institute, 2017).

Howaldt et al. (2016) outlined five key dimensions in social innovation. First, identify the needs and challenges of the community. Second, ascertain the resources, capabilities, and constraints available to develop social innovation. All three social innovations require dynamic processes, which involve creative social strategies (Pue et al., 2016). The fourth is to represent the elements of actors, network relationships, and governance that are important in the implementation of social innovation. Lastly is the concept and understanding of social innovation among stakeholders. Meanwhile, the dimensions and cores developed must be aimed at meeting social wants and needs.

Mdleleni (2021) conducted a study in South Africa involving the University of the Western Cape in Cape Town. The social innovation project involving the university is like the Zenzeleni Networks Project. The study was conducted to understand the methods or ways HEIs contribute beyond the traditional function of the university to implement a solution to the socioeconomic problem through research activities and knowledge transfer. Universities contribute to social innovation through the support available at the university, namely knowledge and resources of materials and assets (Benneworth & Cunha, 2015). In terms of knowledge as (i) a contributor of knowledge through the existing knowledge as well as the generation of knowledge generated, and (ii) a bridge of knowledge through the network or platform of social and academic networks of the university. Meanwhile, in terms of material resources and assets, it is as financing in the form of investment and the use of assets for facilities in the process of social innovation. Therefore, this study wants to examine the role of the university through the university support system in fostering the development of social innovation research.

Research Questions

Thus, the research question that needs to be answered is to what extent do universities play a role in supporting the application of social innovation through the research activities conducted?

Research Methodology

A quantitative methodology based on questionnaire form. Analysis packages IBM SPSS version 22 were used for statistical analysis of the data collection. Descriptive statistical analysis was conducted on the 5 likert type questions. The final sample consists of 237 lecturers of which all drawn from 8 different public universities in Malaysia. The respondents involved were from Universiti Malaya (UM) 30 respondents (13%), Universiti Kebangsaan Malaysia (UKM) 35 respondents (15%), Universiti Putra Malaysia (UPM) 35 respondents (15%), Universiti Teknologi Malaysia (UTM) KL branch only 20 respondents (8%), Universiti Malaysia Kelantan (UMK) 31 respondents (13%). While Universiti Malaysia Terengganu (UMT), Universiti Sultan Zainal Abidin (UniSZA) and Universiti Malaysia Pahang (UMP) are 31 respondents (13%), 36 (15%) and 19 (8%) respectively.

The level of reliability was tested using Cronbach's alpha procedure for validate the survey instrument. Table 1 shows the Cronbach's alpha measures of reliability for the construct is 0.898 which are well above value of 0.7.

Table 1: *Cronbach Alpha for Support System by Universities*

Reliability Statistics		
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.898	.898	6

Results and Discussion

Respondent Profile

A total of 237 respondents were analyzed in this study. Table 1 shows the respondents' background in brief which represents their gender, race, marital status, academic qualification, age, and position. A total of 43 percent or 102 respondents were male and 135 or 57 percent were female. The respondents are made up of various races, but the majority are Malays, which are 219 people who represent 92.4 percent of the respondents. While 9 academics who are Chinese answered this questionnaire which is 43.8 percent. The rest are Indians, Bumiputera and Punjabis with 2.1 percent, 1.4 percent, and 0.4 percent respectively. Marital status of the respondents, most of the academics are married which is 201 people which is 84.8 percent. Meanwhile, 31 respondents (13%) are single and five are divorced or widowed, which is 2.1 percent.

Table 2: *Respondents' Demoghraphic*

		Frekuensi	Peratus
Gender	Male	102	43
	Female	135	57
	Total	237	100.
Ethnicity	Malay	219	92.4
	India	5	2.1
	Chinese	9	3.8
	Bumiputera	3	1.3
	Punjabi	1	0.4
	Total	237	100.0
Marital Status	Berkahwin	201	84.8
	Belum Berkahwin	31	13.1
	Bercerai/Balu	5	2.1
	Total	237	100.0
Age	<30 Years	9	3.8
	31-40 Years	112	47.3
	41-50 Years	85	35.9
	51-60 Years	31	13.1
	Total	237	100.0

Based on Table 2, a total of 16 people has Professor status which is 6.7% and 48 Associate Professors (20.5%). The largest number of respondents are academics with senior lecturer positions, which are 107 people representing 55.7% of respondents. Meanwhile, 40 respondents

are lecturers, which is 18.9%. Most of the respondents have a PhD or DBA degree, which is a total of 182 people (82.7%). Most of the lecturer's positions have a master's degree, which is 29 people out of 42 people who have a master's academic degree. At the same time, only one respondent holds the position of Professor and Associate Professor with a master's degree.

Table 3: *Position and Academic Qualification of Respondents*

		Position				
		Professor	**Associate Professor**	**Senior Lecturer**	**Lecturer**	**Total**
Academic Qualification	PhD/DBA	15	47	122	15	200
	Master	1	1	6	29	37
	Degree	0	0	1	0	1
Total		16	48	129	44	237

Support System by Universities for Research and Development in Social Innovation

The role of universities in social innovation is to succeed in research activities through specific processes, showing methods as well as stages in the process of social innovation (Benneworth & Cunha, 2015; Cunha et al., 2015; Mdleleni, 2021). Table 4 shows the university support for research based on social innovation. Participants responded to a statement indicating that strongly agree (SA), agree (A), neutral is neither agree or disagree (N), disagree (D), or strongly disagree (SD) for each item (Croasmun and Ostram, 2011). There are six statement to discuss. First, lecturer or researcher get support from the university in carrying out research that contributes to the development of social innovation. The result show that the respondents agreed with 62%, strongly agreed with 27%, neutral with 10.5% and only 0.4% respondents disagreeing for the statement.

Second, the university provides funding to support the development of research based on social innovation had respondent who agreed with the higher percentage of 63.7% then strongly agreed with 22.8%. The rest were neutral and disagreed with 11.8% and 1.7%, respectively. This study is in line with various funds introduced to increase the capacity of academia to produce impactful research (Kamarulzaman et al. 2012; Yayasan Inovasi Malaysia, 2020).

Third, The University provides a platform for successful research, development and commercialization oriented towards social well-being showing the higher result of agreed with 62.9%, followed by those who strongly agreed with 27.4%. Other than that, 7.6% respondent show the neutral and the rest 2.1% support by disagreeing.

Fourth, universities create intermediary organizations or collaboration platforms between researchers and industry to produce impactful research. The results of the study show that the respondents agree with 64.1%, which is a total of 152 lecturers and strongly agreed with 22.4%. The rest showed that 13.1% were neutral and 1.7% disagreed. Fifth, university create intermediary organizations or platforms between researchers and society to produce meaningful research, showing the higher results of agreed with 62.9%, followed by strongly agreed and neutral with 21.9% and 1.7%, respectively. For example, Fab Labs are an effective instrument to promote social innovation of universities (Valenzuela-Zubiaur et al., 2021). The creation of an experimental space can convince others to join the collaboration, simplifying the process of arranging or holding meetings. This process assists in validating new inventions in social innovation and enables fundraising through research projects.

Lastly, there was a 90.7 percent agreed or strongly agreed that the programs and projects community-oriented organized by universities can increase the ability to absorb social innovation. Other than that, the respondent shows the neutral (8.0%) and 1.3% disagreed with the statement. This result is similar to Mdleleni (2021) who stated that socially innovative university projects can contribute to the social sustainability of the community maintaining social cohesion by increasing social capital and providing resources to empower marginalized communities.

Table 4: *Descriptive Analysis of University Support for Research based on Social Innovation*

	Frequency (Percent)						
Item	**SD**	**D**	**N**	**A**	**SA**	**Mean**	**St.D**
Support from the university in carrying out research that contributes to the development of social innovation	-	1 0.4%	25 10.5%	147 62%	64 27%	4.16	.608
The university provides funding to support the development of research based on social innovation	-	4 1.7%	28 11.8%	151 63.7%	54 22.8%	4.08	.640
The University provides a platform for successful research, development and commercialization oriented towards social well-being.	-	5 2.1%	18 7.6%	149 62.9%	54 27.4%	4.16	.642
Intermediary organizations/ collaboration platforms between researchers/academics and industry	-	5 2.1%	27 11.4%	152 64.1%	53 22.4%	4.07	.647
Intermediary organizations/ collaborative platforms between researchers/academics and society	-	5 1.7%	31 13.1%	149 62.9%	52 21.9%	4.05	.659
Programs and projects community-oriented organized by universities can increase the ability to absorb social innovation.	-	3 1.3%	19 8.0%	145 61.2%	70 29.5%	4.19	.626

Figure 1 illustrates the university support for research and development based on social innovation according to university. The total mean score for each university shows that it is in a high score which is between 3.94-4.32. Most universities have innovation centres and Technology Transfer Office (TTO) that give scholars a platform to share and expand significant research findings (Nizam et al., 2016; Academy of Sciences Malaysia, 2018). For example, in UPM there is the Putra Science Park (PSP), the Centre of Innovation and Enterprise at UM, while UKM has the Centre for Innovation and Transfer Technology (inovasi@ukm).

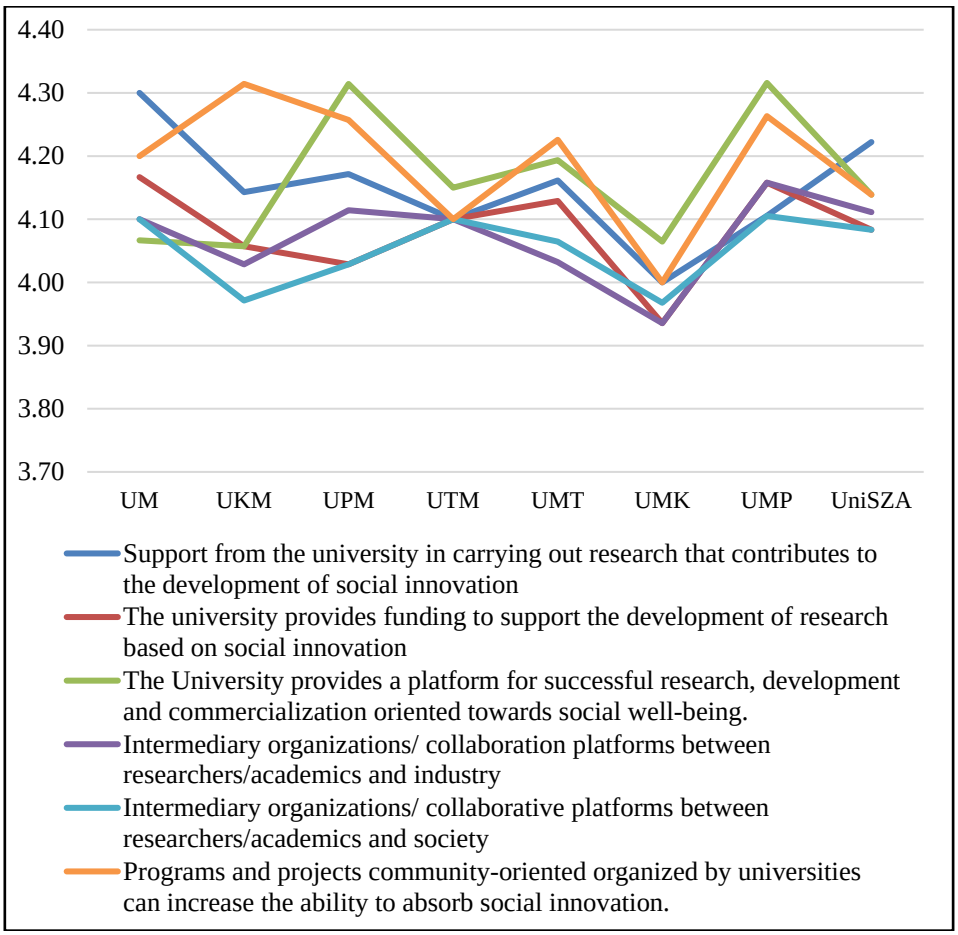

Figure 1: *University Support for Social Innovation Research*

Findings show that university support is at a high level. Nevertheless, the study British Council (2020) states that the support of social innovation in Malaysia is still at a moderate level. This may be due to the measurement of this support being more specific to the application of social innovation. The university's efforts in supporting impactful research have been carried out since the Fifth Malaysia Plan, (1986-1990) and through the Second National Policy on Science, Technology, and Innovation (2002-2010). Therefore, Support from universities needs to be more efficient and comprehensive to face global challenges and achieve sustainable development goals (SDGs) therefore, Support from universities needs to be more efficient and comprehensive to face global challenges and achieve sustainable development goals (SDGs)

Conclusion

In conclusion, planning in the development of meaningful research for industry, society that leads to sustainable development has been done since the Second National Policy on Science, Technology and Innovation (2002-2010). The application of social innovation elements in university research activities can further strengthen the positive impact on societal change and development. The results of studies show that's support from the university through research funding, platform for knowledge transfer, intermediary organization or collaboration platforms between researchers, industry and society positively contribute to the success of effective research. Programs and projects community-oriented organized by universities also can increase the ability to absorb social innovation but a more in-depth study needs to be conducted so that the benefits are really obtained by the community. Further research needs to be done to determine the relationship between the effect of social innovation research and

ecosystem support. A study of the whole ecosystem of social innovation can also be conducted to help academics and stakeholders in finding solutions to societal and national challenges based on the context of social innovation.

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References

A BEPA Report. (2014). Social innovation: A decade of changes. Publication Office of the European Union, Vol. 92. Luxembourg.

Academy of Sciences Malaysia. 2018. Science Outlook 2017: Converging Towards Progressive Malaysia 2050. Science Outlook. 1–246.

Bayuo, B. B., Chaminade, C., & Göransson, B. (2020). Unpacking the role of universities in the emergence, development and impact of social innovations - A systematic review of the literature. Technological Forecasting and Social Change, 155(October 2019).

Benneworth, P., & Cunha, J. (2015). Universities' contributions to social innovation: Reflections in theory & practice. European Journal of Innovation Management, 18(4), 508-527.

Cockshut, L., Brown, A., & Hardey, M. (2020). Social innovation and the university: The impact of intervention for the micro creative economy in North East England. Social Enterprise Journal, 16(2), 203-220.

Cunha, J., Benneworth, P., & Oliveira, P. (2015). Social Entrepreneurship and Social Innovation: Handbook of Research on Global Competitive Advantage through Innovation and Entrepreneurship, 616-639.

Fagerberg, J., Fosaas, M., Sapprasert, K., 2012. Innovation: exploring the knowledge base. Res. Policy 41, 1132–1153.

Farmer, J., Carlisle, K., Dickson-Swift, V., Teasdale, S., Kenny, A., Taylor, J., … Gussy, M. (2018). Applying social innovation theory to examine how community co-designed health services develop: Using a case study approach and mixed methods. BMC Health Services Research, 18(1), 1-12.

Geels, F. W. (2004). From sectoral systems of innovation to socio-technical systems: Insights about dynamics and change from sociology and institutional theory. Research Policy, 33(6–7), 897-920.

Hochgerner, J. 2014. The concept of social innovation and entry points to establish a Malaysian. Innovations are embedded in social change. National Innovation Conference and Exhibition

Howaldt, J., Kaletka, C., Schröder, A., Rehfeld, D. & Terstriep, J. 2016. Mapping the World of Social Innovation. Social Innovation: Driving Force of Social Change July(612870)

Kamarulzaman, A.A., Harris, H., Richardson, S. & Ab. Aziz, N. 2012. Drivers for University Research Performance: Investigating the Researchers' Dynamics. IBIMA Business Review.

Klein, J. L., Tremblay, D. G., & Bussieres, D. R. (2010). Social economy-based local initiatives and social innovation: a Montreal case study. International Journal of Technology Management, 51(1), 121.

Leubolt, B., Moulaert, F., Mehmood, A., & MacCallum, D. (2017). Social Innovation as a Trigger for Transformations: The Role of Research. European Commission, DG for Research and Innovation.

Mulgan, G. 2006. The Process of Social Innovation. Innovations: Technology, Governance, Globalization 1(2): 145–162.

Mdleleni, L. (2021). University as a vehicle to achieve social innovation and development: repositioning the role of the university in the society. Social Enterprise Journal.

Monteiro, S., Isusi-Fagoaga, R., Almeida, L., & García-Aracil, A. (2021). Contribution of higher education institutions to social innovation: Practices in two southern european universities. Sustainability (Switzerland), 13(7), 1-15.

Morawska-Jancelewicz, J. (2021). The role of universities in social innovation within quadruple/quintuple helix model: Practical implications from Polish experience. Journal of the Knowledge Economy. Springer US.

Nizam Jali, M., Abas, Z., & Ariffin, A. S. (2016). Addressing Social Innovation in the Malaysian Knowledge Transfer Program: Gaining a Preliminary Insight. `4IOSR Journal of Business and Management, 18(10), 56-64.

Unceta, A., Castro-Spila, J. & Fronti, J.G. 2016. Social innovation indicators. Innovation: The European Journal of Social Science Research (January): 1351–1610.

Valenzuela-Zubiaur, M., Bustos, H. T., Arroyo-Vázquez, M., & Ferrer-Gisbert, P. (2021). Promotion of social innovation through fab labs. The case of proteinlab utem in chile. Sustainability (Switzerland), 13(16).

Van der Have, R. P., & Rubalcaba, L. (2015). Social innovation research: An emerging area of innovation studies? Research Policy, 45, 1923-1935.

Alwi, A., Nordin, M.N.B. (2022). Applying Information Technology-Based Knowledge Management (KM) Simulation in the Airline Industry. International Journal of Mechanical Engineering, 2022, 7(1), pp. 1249–1252

Bin Nordin, M.N., Rajoo, M., Maidin, S.S., Sulaiman, M.S.S., Mosbiran, N.F. (2022). Competencies On Implementations Of 21st Century Technology on Teaching, Learning and Assessment**.** Res Militaris, 2022, 12(2), pp. 7320–7331

Bin Nordin, M.N., Rajoo, M., Maidin, S.S., Sulaiman, M.S.S., Mosbiran, N.F. (2022). Competencies On Implementations Of 21st Century Technology on Teaching, Learning and Assessment. Res Militaris, 2022, 12(2), pp. 7320–7331

Bin Shafie, A.S., Binti Rubani, S.N.K., Nordin, M.N., Ibrahim, E., Talip, S. (2022). Micro-Pits Effectiveness for Controlling Friction In Planestrain Extrusion. International Journal of Mechanical Engineering, 2022, 7(1), pp. 1270–1280

Jaya, S., Zaharudin, R., Hashim, S.N.A., Mapjabil, J., Nordin, M.N. (2021). Employing Design and Development Research (DDR) Approach in Designing Next Generation Learning Spaces (NGLS) In Teachers' Pedagogy and Technology Tools. Review of International Geographical Education Online, 2021, 11(7), pp. 1237–1246

Mizan, M.Z., Lada, S., Hamzah, A.A., Esam, A., Nordin, M.N. (2021). Movement Control Order (MCO): An Syar'iyyah Political Approach. Review of International Geographical Education Online, 2021, 11(7), pp. 1225–1230

Mosbiran, N, F, B, M.; Mustafa, M, Z, B.; and Nordin, M, N, B. (2021) Special Elements and Values Needed in Leadership for Special Education. Review of International Geographical Education (RIGEO), 11(4), 712-722. doi: 10.33403/rigeo. 8006784

Mosbiran, N.F., Mustafa, M.Z., Nordin, M.N., Abenoh, N.A., Saimy, I.S. (2021). Analysis of the Study of Individual Education Plans in Special Education. Review of International Geographical Education Online, 2021, 11(7), pp. 1231–1236

Norazmi, N., Zaid, M. & Abdul Rasid, A. R. (2019). The Practice of Headmasters' Leadership and Its Effect on Job Satisfaction of Special Education Integration Program (PPKI) Teachers in Johor, Malaysia. Universal Journal of Educational Research 7.9 (2019): 2008-2014. DOI: 10.13189/ujer.2019.070923.

Norazmi, N., Zaid, M. & Abdul Rasid, A. R. (2020). Relationship between Headmasters' Leadership, Task Load on Special Education Integration Programme Teachers' Job Satisfaction. Universal Journal of Educational Research 8(8):3398-3405

Nordin, M.N., Alwi, A. (2022). Digital Video Broadcasting Implementation in WSN Environments. International Journal of Mechanical Engineering, 2022, 7(1), pp. 1256–1259

Nordin, M.N., Alwi, A. (2022). Knowledge Management Model Implementation in Electronic Devices. International Journal of Mechanical Engineering, 2022, 7(1), pp. 1253–1255

Nordin, M.N.B., Maidin, S.S., Rajoo, M., Magiman, M.M., Mosbiran, N.F. (2022). International Frameworks For 21st Century Competences: Comparative Education. Res Militaris, 2022, 12(2), pp. 7332–7344

Rosnee Ahad, Mohamad Zaid Mustafa, Suhaimi Mohamad, Nur Hanim Saadah Abdullah, Mohd Norazmi Nordin (2021). Work Attitude, Organizational Commitment and Emotional Intelligence of Malaysian Vocational College Teachers. Journal of Technical Education and Training Vol. 13 No. 1 (2021): 15-21.

S, S.M., Yusoff, M.Y.M., Rahmat, R., Yassin, Y.N.H.M., Nordin, M.N. (2021). Asset Tokenization: A Simulation Study. Review of International Geographical Education Online, 2021, 11(7), pp. 1219–1224

Zaid, M., Norazmi, N. & Abdul Rasid, A. R. (2020). Regression between Headmaster Leadership, Task Load and Job Satisfaction of Special Education Integration Program Teacher. Universal Journal of Educational Research 8.4 (2020) 1356 - 1362. Doi: 10.13189/ujer.2020.080428.

Zaid, M., Norazmi, N. & Abdul Rasid, A. R. (2020). Structural Equation Modelling Using AMOS: Confirmatory Factor Analysis for Taskload of Special Education Integration Program Teachers. Universal Journal of Educational Research, Vol 8 (Jan, 2020) No 1: 127-133. DOI: 10.13189/ujer.2020.080115.