JOSTIP

Vol. 7 No. 1 (June 2021)

Psychological Capital as a Thrust to Innovative Personality: A Focus on Education

Nooraini Othman[1*]

[1]Perdana Centre of Science, Technology & Innovation Policy, Razak Faculty ofTechnology & Informatics, UTM

*Corresponding Author: p-noraini@utm.my

Abstract

This paper aims to describe the importance of psychological capital and innovative personality development for the creation of a sustainable educational ecosystem. References are made to some relevant Malaysian education policies. In principle, psychological capital and innovative personality are intertwined and inseparable, and the context educational development in Malaysia is no exception. Numerous policies have been developed by the Ministry of Education in Malaysia. What is profoundly important after every policy development is its effective implementation. Policy analysis is another initiative. This paper aims to investigate psychological capital as a component of holistic human capital that needs to be developed. The innovative personality profile is briefly described. The role of the education sector, and the progress towards the development of a sustainable education ecosystem, finally conclude the paper. The main emphasis is on training and policy enlightenment.

Keywords psychological capital, innovative personality, educational ecosystem, Malaysia education policy

■ 1.0 INTRODUCTION

The Malaysian Ministry of Education announced the National Higher Education Strategic Plan in 2011, which plays a crucial role in transforming Malaysia into a developed country with a high income, and highly competitive and innovative minded citizens. In relation to this plan, the Innovative Human Capital Strategic Plan at the Tertiary Level was also announced by Universiti Pendidikan Sultan Idris (UPSI) in the same year (The National Higher Education Strategic Plan Beyond, 2020, 2012). The purpose of this five-year plan is to reduce the current innovation gap by creating a conducive, innovative ecosystem, and commercialise new findings. Prior to that, the Malaysian government focused on developing creative, dynamic and innovative human capital in the 10th Malaysian Plan, as one of the cores in the nation's transformation strategies in achieving its vision to become a fully developed country by the year 2020. The above initiatives are predicted to facilitate the development of a holistic personality through education (Nooraini and Khairul Azmi, 2014).

Incentives such as increased facilities and financial allocation have been handed to the education sector to produce innovative human capital, from schools, to tertiary institutions.

Through these initiatives, students are hopefully capable of facing more practical and competitive situations, while teachers are trained to better lead and manage their students to become more innovative, in their teaching and learning sessions.

In order to shape the overall quality of an individual, the aspect of innovative personality was emphasized in producing the best and most valuable products, systems and services. This effort can be witnessed in the ongoing national innovation strategy and the higher education strategic plan in developing innovative human capital to increase the nation's economy.

Innovation is a chain to enhance economic value to a higher level. The Malaysian Prime Minister, Najib Abd Razak, has officially announced the year 2012 to be the National Innovation Movement year, in which one

of the agendas was to restructure the strategies in transforming research and development products into ones with high commercial value via research institutions.

Personality is one of the areas in psychology that holistically explores a person as an individual and a complex creature. Scientific analysis carried out on personality theory revolves around questions such as why are we where we are now? In responding to this particular question, we cannot avoid facing the truth that human behaviour is indeed complex. Humans may have numerous similarities, yet are different in many respects. A great deal of research has revealed continuous attempts to establish a meaningful relationship between personality, and various aspects of human behaviour. These include, but are not limited to, theories and research by Freud (1938), Allport (1961), Adler (1964), Bandura (1977) and Rogers (1980).

Innovative personality refers to the capability of the human resource to invent a new or better product, or service, in fulfilling the needs and demands of the society. According to Prather (2010), innovation heavily depends on the environmental factors that help innovation, and the ones that can 'squash' it. He developed a model, namely, the "Innovation Competence Model". There are three arenas associated with the competence model: education about the principles, tools, and techniques to solve critical business problems; and leadership in the workplace to enable innovation. He further argued that total leadership commitment from the top is the single most important factor in a company's level of innovation competence and innovative success. Thus, based on this concept, the present author in her research (Nooraini & Khairul Azmi, 2014) has included leadership as one of the important characteristics in the innovative personality profile. This concept is also supported by Gailly (2011). According to Hammond (2012), Forbes Insights study reveals five personality types that drive innovation. The study was based on a survey on a total of 1,245 executives in Europe, and included a series of questions on the executives' attitudes, beliefs, priorities and behaviours. The personality types include movers and shakers, which refer to the leaders. These are the ones who desire being in front, driving projects forward, and pushing to get things done. Braveness gives an individual a high level of confidence in completing any given task.

The ability to provide creative ideas is also associated with braveness (Lee and Choi, 2003). Innovation requires braveness in creating and producing something new and different (Gailly, 2011). Another important characteristic is openness, which refers to open-minded people who are proactive and diverse in thinking. According to Foley (2014), diversity is good for innovation, for it brings different perspectives, experiences and points of references. The 'Big Five' is seen to have the most scientific support from the world of psychology, and is also referred to as the OCEAN model. One of its aspects is openness, i.e., openness to new ideas and promoting innovative and diverse thinking (Foley, 2014).

■ 2.0 Psychological Capital as a Component of Holistic Human Capital

Omar (2013), in his book, "The Essentials of Science, Technology and Innovation Policy", stated that the knowledge worker for the Innovation Economy should have the following attributes:

i. the ability to provide solutions, working alone or in a group;

ii. possess a core competency, and creativity, which is enhanced by mastery of ICT;

iii. creative, innovative and entrepreneurial;

i. highly motivated, adaptable, open to learning, including self-learning, re-learning, and prepared to master new skills;

ii. being a risk taker, and able to work without borders; and

iii. possess work ethics based on Smart Partnership Values (respect, trust, tolerance and transparency) and science ethics (professional with social, environment, moral and ethical obligations).

He further stressed that holistic human capital should comprise six elements, and one of them is psychological capital. The elements of psychological capital are commitment, passion, dedication, confidence and belief in self.

Ansari (2001) indicated that man should be a purposive being, and an evolutionary being. Man's struggle for some serious purpose and capability to rise higher and higher may form the very essence of his personality. Ansari also added that man should possess freedom of will, without which moral struggle would be absolutely

inconceivable. This freedom of will comes with responsibility and accountability. Thus, the following will describe the most important aspects of psycho-socio motivation and psychological capital from the Quranic perspective.

■ 3.0 Achievement Motivation

Allah says in the Quran (An-Nahl: 97):

"Whoever works righteousness, man or woman, and has faith, verily, to him will We give a new life, a life that is good and pure, and We will bestow on such their reward according to the best of their actions".

According to Badri (2000), one of the problems of the Muslim world today is that it has become dependent on the West in all branches of modern knowledge. In the past, Islamic civilization was among richest in the world: Universities of the Muslim world were centres of knowledge that attracted students from East and West; the books of their renowned scholars became international sources of reference, and Arabic played a fundamental role in the transmission of knowledge. Muslim specialists should therefore take an independent line in the study of all disciplines, and adopt an attitude of inquiry and criticism, rather that of passive acceptance.

Decoding the glorious words that Allah revealed to the holy Prophet Muhammad (S.A.W.) in 'the cave': the Muslim world was brightened with sciences that contributed enormously to the colossal technology of today (Owadally, 2005). The two words "Read" and "Pen" are among the first five verses revealed to the Prophet Muhammad (S.A.W.). These words produced extraordinary effects on the seekers of science, to such an extent that it can be acknowledged that there is no science in which Muslims had not excelled, ventured, learned, developed and transmitted. Islamic religion and Islamic sciences are inter-linked, and the civilization created by Islam can hardly be overemphasized, since there are so many verses in the Quran and Hadith that stress various scientific concepts. The images in Figure 1 are evidence of the achievements of Muslim scholars in the areas of science, technology and innovation.

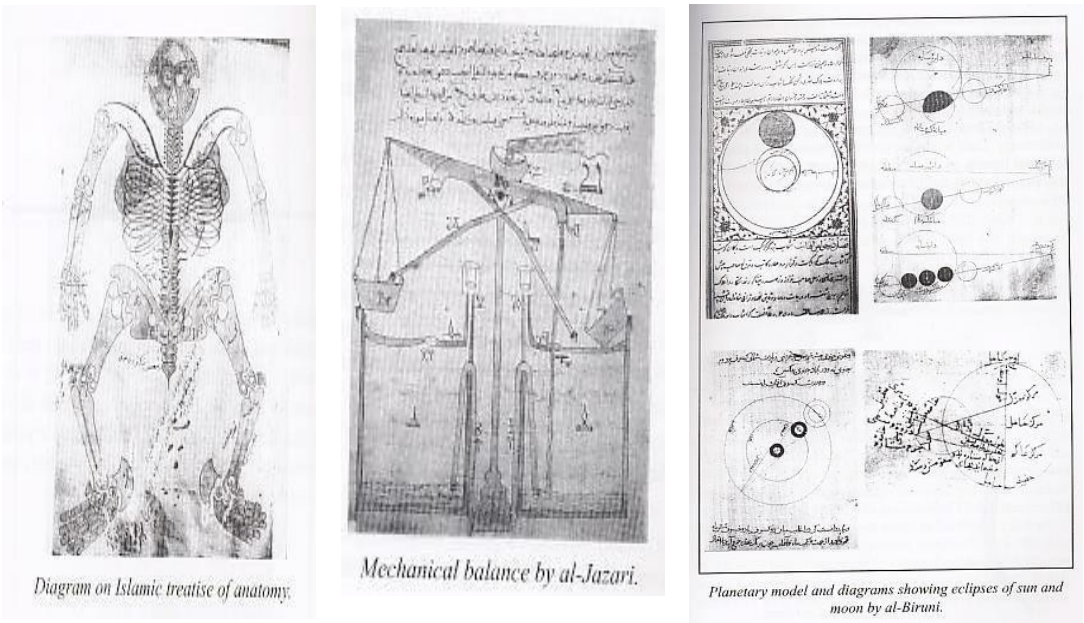

Figure 1. Images of achievements of Muslim Scholars in Science, Technology and Innovation

■ 4.0 Competitive Motivation

Allah says in the Quran (Al-Mutaffifin: 22-26):

"Verily, Al-Abrar (the pious and righteous) will be in Delight (Paradise). On thrones, looking (at all things). You will be given to drink of pure sealed wine. The last thereof (that wine) will be the smell of musk, and for this let (all) those strive who want to strive (i.e. hasten earnestly to the obedience of Allah).

The above verses imply that those who performed goodness will be rewarded with bounties by Allah. They will be showered with blessings. As a result, they will enjoy life and have the best seat in the sight of Allah. Such a description is usually observed in the context of life in the hereafter. However, inspiration can be drawn from the above verses to have the resulting implications in our own lives in this world. Taking the spirit of the above verses, human beings can aim for a higher sitting in order to attain a better position in any undertaking. Thus, they become highly competitive.

Competitiveness is a spirit of being passionate to be better and on top of everyone else. It is also a spirit with the desire to be the best. In order to be the best, Muslims must be qualitatively high. Competitiveness can be seen not only in the context of products in the market, but also in the individual as well. This is where Japanese differ with the West when they explain quality management, or quality control. The West would speak of quality control at the end of the production line. This means that, when a product is found to be defective, it will be removed from the line. This is, to a certain degree, considered wastage. The Japanese, however, acknowledge total quality control. To them, the process should start from the humans that manage the assembly line. They believe that, if a person is good, the end product would equally be good. In return, the West learned and emulated this principle of total quality control in order to establish competitiveness. This approach is more productive, and is in conformity with Islam.

■ 5.0 Profile of Innovative Personality

A study by Nooraini & Khairul Azmi (2014b) was carried out to identify the most important aspects of innovative personality among teachers in Malaysia. A newly developed instrument, namely, Nooraini's Innovative Characteristics for Excellence (NICE), was used for the data collection. The first construct generated by Principal Component Analysis (PCA) is leadership. This construct shows a leader's characteristics that are related to innovative personality development. The leadership traits need to be developed in each individual teacher, so as to enable them to influence innovative behaviour among their students. A leader is capable of influencing the behaviour of his or her employees (Yulk, 2002). According to Falk and Millar (2002), other than acquiring academic qualifications, those who want to be successful should be able to apply their knowledge in their daily lives as well. Thus, self - management is needed in developing the leadership trait. Knox (2002) states that, in order to achieve a successful organisation, a responsible leader is needed to implement innovative strategies, and to inspire his subordinates to create innovative culture among them.

The second construct is openness. This construct is also related to innovative personality development. An open-minded trait allows an individual to accept changes made in any organisation. According to LePine, Colquitt and Erez (2000), open-minded individuals will be able to adapt and accommodate themselves easily to any changes. They will change their attitude and behaviour according to new concepts and situations that they encounter (John, 1990).

The third construct generated by PCA is braveness. This construct serves as one of the aspects in innovative personality development. Braveness refers to an individual who is capable of making changes in an organisation, and is able to perceive things from different perspectives. In the context of this study, a teacher is expected to be brave enough to make changes in the processes of teaching and learning, with the main purpose of instilling innovative values among students.

■ 6.0 Role of the Education Sector

The second construct is openness. This construct is also related to innovative personality development. An open-minded trait allows an individual to accept changes made in any organisation. According to LePine, Colquitt and Erez (2000), open-minded individuals will be able to adapt and accommodate themselves easily to any changes. They will change their attitude and behaviour according to new concepts and situations that they encounter (John, 1990).

The education sector directly contributes to the development of human resources, and in turn the development of an entire nation. Apart from being a development agent, education becomes the bridging factor in directing human knowledge, training, potential, interest and all quality elements to more dynamic, innovative and progressive dimensions, in moving the country towards a better and

higher income one. Thus, education plays a crucial role in shaping the quality of students, not only from the aspects of academic, co-curriculum and personality, but also in enhancing human capital value through innovation and intellectual capabilities. In line with the national agenda, the government place great emphasis on producing human capital with high thinking skills, good personality, creativity, innovation and competitiveness. Equipped with these aspirations, teachers should be trained and developed to become innovative teachers in order to produce innovative students.

Teachers are responsible for educating their students in academic aspects, as well as developing the innovative culture among them. Without innovative teachers, it is difficult to expect the birth of an innovative generation. It is also important for teachers to equip themselves with the necessary skills. Thus, the development of this profile will assist teachers and educators alike to comprehend the innovative characteristics, and in turn develop their personality parallel to these characteristics, in order to produce innovative students, as future innovative citizens.

The Ministry of Education, through higher education institutions, needs to have a predefined teachers' training programme in developing teaching skills, and instilling innovative characteristics among students. This profile is able to provide the ministry with input in developing and strengthening teachers to shape innovative and competitive human capital.

However, it is worthy to note that the process of developing holistic human capital must be initiated at home, and then carried through to the workplace with conducive environments (Omar, 2013). Innovativeness requires an individual to act outside of the normal thinking framework. In this context, leadership is among the cores in moving the initiative to create an innovative culture. Openness can make every party concerned learn new things and assess the best approach to instilling an innovative culture. Meanwhile, braveness is the motivating factor in making changes and looking at things from different perspectives. It is the combination of these characteristics that will eventually help to develop innovative human capital.

According to Seyyed Hossein Nasr (2010), the first element we must understand is that this technology is not neutral. Although it is assumed that people make positive use of technology because they are good, and vice versa, he argued that this is not case. Global warming is destroying numerous ecosystems, and a great portion of destruction comes from the so-called peaceful use of the automobile. He further stated that it is not a simple question of the good or bad use of technology; there are more factors involved. Muslims need to understand the nature of this technology, and cannot be naïve and in thinking that it is simply neutral.

Thus, developing an innovative personality in humans is not only having humans with creative and innovative ideas. Most importantly, a person must be innovative in choosing the best technologies that have the least negative impact on the development of a country.

■ 7.0 Progress Forward

Each and every policy being developed in the innovation ecosystem (Malaysia Blueprint Education 2015-2025, 2015) needs to be clearly understood by all educators, as well as their corresponding administrations. If these policies are misunderstood, it could be assumed that the translation of these policies, particularly in the context of teaching and learning, would not be executed effectively. This might also create a large gap in terms of understanding policy makers at the ministry level, and policy implementers among educators. Therefore, a comprehensive and extensive movement should be made throughout the country to provide a proper and clear understanding to educators about:

1. the policy itself;
2. its implementation approach;
3. challenges and limitations during its implementation;
4. monitoring of implementation; and
5. improvement and enhancement activities, and their approaches after feedback is gathered.

An ‘educator’, in this context, is generic in nature. It refers to teachers in the schooling system, and also to lecturers in higher learning institutions. This movement should not only involve these two important groups (i.e., schools and higher learning institutions), but should be extended to pre-schooling systems as well. To some, pre-school is viewed as a less relevant institution, and not more than just preparing children for their subsequent school years. However, previous research (Brooks et. al., 2002; Han et. al., 2001; Pianta et. al, 1997; Birch & Ladd, 1997) showed that pre-school education is a thrust to personality, and a potential development of students. In other words, pre-school ecosystems should also embrace the meaning and intention of psychological capital development, as well as that which relates to the development of innovative personality.

Psychology, particularly personality psychology, and innovation, especially innovative personality, is a very specific subject. They require specific modules to accomplish such human development programs. Ultimately, educators who embrace and embed in themselves the relevant fundamental elements, personality psychology and innovative personality will be achieved.

REFERENCES

Adler, A. (1964). Social interest: A challenge to mankind. New York: Capricorn Books.

Ansari, M. F. (2001). The Qur’anic Foundations and Structure of Muslim Society. Kuala Lumpur: Islamic Book Trust.

Allport, G.W. (1961). Pattern and growth in personality. New York: Holt, Rinehart and Winston.

Badrī, M. (2000). Contemplation: an Islamic psychospiritual study. IIIT. Bandura, A. (1977). Social learning theories.

Birch, S., & Ladd, G. (1997). The teacher-child relationship and children’s early school adjustment. Journal of School Psychology, 35.

Brooks-Gunn, J., Han, W. J., & Waldfogel, J. (2002). Maternal employment and child cognitive outcomes in the first three years of life: The NICHD study of early child care. Child development, 1052-1072.

Falk, I., & Millar, P. (2002). Non/Working Lives: Implications of" Non-Standard Work Practices" for Literacy and Numeracy.

Foley, P. (2014). Innovation Psychology: Five Personality Traits of Innovators. Retrieved on 2 June 2015 from http://www.innovationexcellence.com/blog/2014/12/29/innovation- psychology-five-personality-traits- of-innovators/

Freud, S. (1938). The Basic Writings of Sigmund Freud.

Gailly, B. (2010). Developing innovative organizations: a roadmap to boost your innovation potential. Palgrave Macmillan.

Hammond, M. (2012). Forbes Study Reveals Five Personality Types that Drive Innovation. Retrieved on 2 June 2015 from: http://www.smartcompany.com.au/legal/intellectual-property/25264-forbes-study- reveals-five-personality-types-that-drive-innovation.html

Han, W., Waldfogel, J., & Brooks-Gunn, J. (2001). The effects of early maternal employment on children’s later cognitive and behavioral outcomes, Journal of Marriage and the Family, 63(2).

John, O. P., Donahue, E. M., & Kentle, R. (1990). ‘The ‘‘Big Five. Factor Taxonomy: Dimensions of Personality in the Natural Language and in Questionnaires.’’In Handbook of Personality: Theory and Research, ed. Lawrence A. Pervin and Oliver P. John, 66-100.

Knox, S. (2002). The boardroom agenda: developing the innovative organisation. Corporate Governance: The international journal of business in society, 2(1), 27-36.

LePine, J. A., Colquitt, J. A., & Erez, A. (2000). Adaptability to changing task contexts: Effects of general cognitive ability, conscientiousness, and openness to experience. Personnel Psychology, 53(3), 563-593.

Lee, H., & Choi, B. (2003). Knowledge management enablers, processes, and organizational performance: An integrative view and empirical examination.Journal of management information systems, 20(1), 179 - 228.

Malaysia Education Blueprint 2015-2025. (2015). Putrajaya: Ministry of Education Malaysia. Othman, N., & Mohamad, K. A. (2014). Integrated System in the Malaysian Education

Paradigm: A Catalyst for a Holistic Personality Development. International Education Studies, 7(5), p8.

Nooraini Othman & Khairul Azmi Mohamad. (2014b). Exploring Leadership Characteristics in Innovative Teachers for Innovative Students. 7th International Conference of Education and Innovation (ICERI 2014). 17-19 November 2014.

Omar A. (2013). The essentials of Science, Technology and Innovation Policy. Kuala Lumpur: Academy of Science Malaysia.
Owadally, M. Y. (2005). The Muslims Scientists. Kuala Lumpur: A.S. Noordeen. Pianta, R. C., Steinberg, M. S., & Rollins, K. B. (1995). The first two years of school: Teacher- child relationships and deflections in children's classroom adjustment. Development and Psychopathology, 7(02), 295-312.
Prather, C. (2009). The Manager's Guide to Fostering Innovation and Creativity in Teams. McGraw Hill Professional.
Rogers, C. R. (1980). A Way Being. Boston: Houghton Mifflin.
Seyyed H. N. (2010). Islam, Science, Muslims and Technology. Petaling Jaya:Islamic Book Trusts. The National Higher Education Strategic Plan Beyond 2020. (2012). Putrajaya: Ministry of Higher Education Malaysia.
Yulk, G. (2002). Leadership in Organizations (5th Edn.). Englewood Cliffs, NJ: Prentice Hall.