



اَوْنُوْرَسِيْتِي تِيْكْنُوْلُوْجِي مَارَا
UNIVERSITI
TEKNOLOGI
MARA

Monograph Series of UiTM Pahang

COMPASS

Compilation of Pahang Scholars' Synergy

Vol. 2 No. 1 (Research & Innovation)

ISSN 1985-9937



Moving towards Innovation-driven Culture through Avenues of Creativity

Nadhratunnaim Abas

ABSTRACT

As 2010 is announced to be the Year of Innovation and Creativity worldwide, it is a challenge that needs to be faced in order to move forward. Realising this, it is important to educate and expose people to the knowledge of channelling their creative energy through exploration of the Avenues of Creativity in their journey towards innovation. As an observation of the practicality of such exploration, twenty-two first semester students enrolling in the diploma programme of the Business Studies Faculty in Universiti Teknologi MARA (UiTM) Pahang were challenged to produce ideas that would contribute to innovation. Before getting started, they were educated on the knowledge of exploring the Avenues of Creativity. The findings seemed to indicate a positive impact. Four out of five groups of these students managed to produce amazing innovative ideas.

Keywords: *avenues, creativity, innovation, culture*

Introduction

The 21st century has marked the emergence of great inventions. From cell phones to computers, everything has embraced the all-in-one features. New innovations have landed companies with huge profits. With innovations, the rapid technological advancement is driven by mobility and eclecticism. The evolution of mobile phones, for instance, has tremendously moved the society worldwide through their latest innovations. These days, mobile phones are embedded with multifunctional tools like walkman, camera, navigation, computer, TV, radio and the internet. All these signify innovations towards catering to the needs of the society. According to The Oxford Research Agency (2009), 2010 is predicted to be 'The Year of Innovation'. In fact, the News Strait Times Online has recorded the emphasis on innovation made by the Prime Minister of Malaysia, Dato' Sri Mohd Najib Tun Abdul Razak as he declared 2010 The Year of Creativity and Innovation for Malaysia as a developing nation ("Najib names", 2009). Realising that the Malaysians cannot afford to be left behind, he has developed a new economic model

based on the creativity and innovation for the 2010 National Budget. Thus, to answer the call, the concept of innovation as well as its connection with creativity should be firstly understood and later moulded to fit into the cycle of the Avenues of Creativity.

Innovation and Creativity Examined

The term ‘innovation’ as derived from its Latin root, *nova* means ‘new’ or is thoroughly defined as ‘the embodiment, combination, or synthesis of knowledge in original, relevant, valued new products, processes or services’ (Harvard Business Essentials, 2003, p. 2). Based on this definition, it reaches our understanding that three utmost important keys of an innovation embrace the elements of ‘originality’, ‘relevance’ and ‘values’. Thus, an innovative product or service has to be original to ensure its uniqueness as well as relevant in which it is able to cater to the needs of the society. In addition, it has to be highly valued by the users at large. However, without creativity, innovation cannot ensure its existence. ‘Creativity’ as originated from the verb *create* describes itself perfectly as it establishes the existence of something that has not yet been created previously (Anon., 2005). In other words, in order to be creative, someone should be able to produce something entirely new. This path towards producing new products or services has to undergo the process of combining two contrastive, unrelated ideas or things (Mean, 2009). Therefore, creativity and innovation have to coexist in order to benefit everyone, from companies to societies at large.

Culture of Creative Thinking

Creative thinkers contribute to the development of the nation. Innovations through creative thinking have a lot to offer, from life convenience to the intellectual and economic boosts. Ament (n.d.) recorded the first ever breakthrough dated back in the age of the Ancient BC, which was the discovery of the use of fire in human lives. Since then, modern man had been born and inventions like the bows and arrows, wheels, pottery, metals, maps to the computers and green energy started to pour in. The modern man has been continuously seeking ways to improve the living and constantly making efforts to make the world a better place to live in. In addition, innovations that have benefited the worldwide community

have generated a lot of profits. Among the profit machines are the eBay estimated to be worth more than US\$70 billion, the luxurious automobile industries like Cadillac and Buick that have earned more than \$10 million in revenue in just two years as well as the amazing breakthrough in biotech which has annually gained at least \$39.2 billion of profit (BusinessWeek, 2004a; 2004b; 2004c).

Thus, it is important to have creativity and innovation as a culture in a society. The inculcation of these values has to be done in as early as the childhood days as creativity suits the nature of a child who enjoys being playful and imaginative. Goleman and Kaufman (1992) illustrated the similarities between being an infant and being creative in which there is a strong passion to explore and test things to satisfy curiosity. For instance, an infant who is playing with a new toy will try many ways to make it work without even being guided by the manual and this makes him creative. Therefore, assisted by creativity and imagination, he is able to innovate ways of playing with the toy. When creativity and innovation are constantly practised, they might become part of the culture or the norms of thinking employed leading towards adulthood.

Bearers and Killers of Creativity

Apart from curiosity and imagination, creativity can be born through enjoyment and freedom. Goleman and Kaufman (1992) mentioned that children who are allowed to have freedom and flexibility in the activities that they participate are more likely to innovate as the joy that they feel drives their passion to explore. However, rigidity, pressure and intolerance of ambiguity may threaten creativity. They further illustrated the danger of rigidity and pressure as children who are frequently dictated to adhere to only getting it right will be frustrated by the loss of freedom. This will make them lose the passion to explore as the fun is no longer there. Mean (2006) seemed to agree with this by mentioning that constant criticism may cause death in creativity.

Human beings are fortunate to be equipped with a creative part in the brain. However, just like a computer with an installed programme, in order to fully utilise it, users need to be acquainted with the knowledge of activating it. The activation of creativity through a proper method will conveniently trigger an innovation.

Avenues of Creativity Explored

In moving towards innovation, it may greatly help to explore one's own Avenues of Creativity. The Harvard Business Essentials (2003) viewed an innovation as an exploratory process that undergoes a series of events which manipulates creativity along the way. The process, which can also be referred to as the Avenues of Creativity is synthesised from the ideas proposed by the creativity experts, the Harvard Business Essentials (2003) and Mean (2006). This exploration will start with two initiators of the process followed by another five major events fully utilising creative avenues that will eventually lead to an innovation.

The path towards a breakthrough will be triggered by firstly, the identification of a problem or an issue that affects the situation or the people. For example, the invention of masking tape by the 3M company was prompted by the damage done by 'heavy adhesive tape in an auto body repair shop' (Harvard Business Essentials, 2003, p. ix). When the problem starts to affect people deeply, it needs to be carefully analysed and examined. Then, once it is identified, it is time to call for a solution.

In the midst of the journey to find the remedy, an innovator-to-be will need to undergo some events following the Avenues of Creativity. The first one calls for a brainstorming session that requires vast production of ideas. No matter how insane they are, any ideas might be extremely important for the innovation. Mean (2006, p. 22) emphasised the value of ideas in this stage as according to him, 'some of these wild ideas may become winners for they may be developed further or may act as catalysts of other ideas'. He further warned the dangers of judgment and criticism on killing the ideas and thus, they should be hindered by all means.

The second event witnesses the evaluation of ideas. Here, all ideas drawn during the brainstorming session should be scrutinised. Analyses will be done in the light of their values. Questions enquiring about their practicality and/or marketability will be raised. Once the ideal is carefully retained and the others are tossed out, further discussion will be needed.

Following the evaluation of ideas is the mind-mapping event where the selected idea will be further elaborated. The mind-mapping technique which was developed by Buzan in 1970s, according to Mean (2006), requires creative thinking as further ideas are expanded in the form of branches representing freedom of thoughts. Mind-mapping might be essential in the path towards innovation as it ponders upon the selected idea thoroughly covering all aspects and views. Mean (2006) also pointed

Avenues of Creativity Explored

In moving towards innovation, it may greatly help to explore one's own Avenues of Creativity. The Harvard Business Essentials (2003) viewed an innovation as an exploratory process that undergoes a series of events which manipulates creativity along the way. The process, which can also be referred to as the Avenues of Creativity is synthesised from the ideas proposed by the creativity experts, the Harvard Business Essentials (2003) and Mean (2006). This exploration will start with two initiators of the process followed by another five major events fully utilising creative avenues that will eventually lead to an innovation.

The path towards a breakthrough will be triggered by firstly, the identification of a problem or an issue that affects the situation or the people. For example, the invention of masking tape by the 3M company was prompted by the damage done by 'heavy adhesive tape in an auto body repair shop' (Harvard Business Essentials, 2003, p. ix). When the problem starts to affect people deeply, it needs to be carefully analysed and examined. Then, once it is identified, it is time to call for a solution.

In the midst of the journey to find the remedy, an innovator-to-be will need to undergo some events following the Avenues of Creativity. The first one calls for a brainstorming session that requires vast production of ideas. No matter how insane they are, any ideas might be extremely important for the innovation. Mean (2006, p. 22) emphasised the value of ideas in this stage as according to him, 'some of these wild ideas may become winners for they may be developed further or may act as catalysts of other ideas'. He further warned the dangers of judgment and criticism on killing the ideas and thus, they should be hindered by all means.

The second event witnesses the evaluation of ideas. Here, all ideas drawn during the brainstorming session should be scrutinised. Analyses will be done in the light of their values. Questions enquiring about their practicality and/or marketability will be raised. Once the ideal is carefully retained and the others are tossed out, further discussion will be needed.

Following the evaluation of ideas is the mind-mapping event where the selected idea will be further elaborated. The mind-mapping technique which was developed by Buzan in 1970s, according to Mean (2006), requires creative thinking as further ideas are expanded in the form of branches representing freedom of thoughts. Mind-mapping might be essential in the path towards innovation as it ponders upon the selected idea thoroughly covering all aspects and views. Mean (2006) also pointed

out the significance of mind-mapping as it reveals the interrelationships of an idea. The branches including the sub-branches represent maps of thoughts that illustrate the values of such idea.

The next event marks the birth of an innovation which will still need to be tested, improved and upgraded from time to time. In this stage, as the innovation is still at its infancy, it might be subject to improvisation and the needs for adjustment. Some innovators would opt to test their invention at the laboratory while others would release it to the users, letting them decide what needs to be improved. The release will be treated as a test through the feedback received from the users which will enable the company to see the effectiveness of the new product or service. The innovation will then be improved, upgraded and developed according to the needs of the users.

Once produced, the new product or service needs to be commercialised. It is once again to reach the users, be tested, improved and upgraded. It will act as the object of transaction in the market through various advertisements in the mass media until the next invention comes in to replace or upgrade it.

This cycle of path towards innovation should be ongoing. The innovation needs to be constantly reviewed and upgraded when necessary. The events undergoing the *Avenues of Creativity* beginning from the identification of problem to the commercialisation would be extremely essential in the journey towards great invention. Figure 1 below illustrates the ongoing *Avenues of Creativity* leading towards innovation.

Avenues of Creativity Tested

Realising the importance of creativity and innovation as early as in the classroom, an effort was made to cultivate these values to a group of twenty-two first semester students enrolling in the diploma programme of the Business Studies Faculty in UiTM Pahang. These students were chosen due to a number of reasons; firstly, they were presumably individuals with new and fresh perspectives and secondly, they were taking Business Studies which means that they might need to be creative and innovative in order to become successful entrepreneurs in the future.

During the ice-breaking session, students participated in an activity called the *Innovation Challenge*. They were put into five groups with four to five members in each group. In this activity, they were required

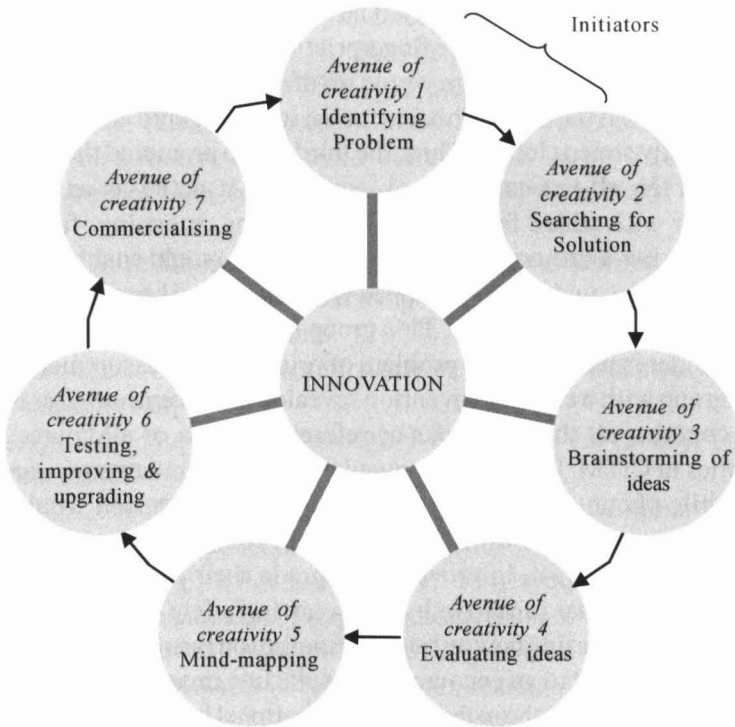


Figure 1: The Ongoing Avenues of Creativity towards Innovation

to produce the best innovation in the form of a product or a service. Then, they needed to lay out their ideas and present the innovation to their fellow classmates who would act as their future customers. Before letting them discuss with their group members, they were educated on the cycle of creative avenues as illustrated in Figure 1. They were reminded that in order to produce an excellent innovation, they had to undergo the events in the Avenues of Creativity. During their discussion, their exploration of creative avenues was observed. Immediately after identifying the problem at hand, they started to brainstorm, evaluate and mind-map their ideas.

The findings of this observation proved to have a positive impact. Their exploration of the Avenues of Creativity seemed to be fruitful. Out of the five groups, four had amazing inventions. The first group presented on the invention of a laundry machine that would not only wash and dry the clothes, but would also fold them neatly. This was due to the problem

of limited time to do the laundry. The second group invented a clothes hanger which could record the fingerprint of its owner for identification purposes. If stolen, the alarm would go off to attract people's attention and thus, reveal the thief. This invention was triggered by the problem of frequently stolen clothes. Then, the third group promoted their product that was the all-in-one notebook computer. It acted as an ordinary computer with added features such as printing, scanning, faxing and photocopying. Furthermore, its size and weight would enable mobility. In addition, it would also be equipped with an internal broadband modem for the Internet connectivity. This group invented this as they felt that most students had the same problem of printing their assignments. The final group with a creative invention revealed the invention of an eBook that contains all the textbooks or reference books of all courses and faculties in UiTM. It could be conveniently transferred to any computer or mobile phone. According to this group, this invention would help students save their money to buy the costly textbooks every semester. As an attempt to test, improve and upgrade their product, two of the groups took further initiative by interviewing a few of the audience.

Thus, it is amazing how an hour of exposure on manipulating students' creativity can lead to an encouraging result. Just imagine if they were to apply this knowledge throughout their educational lives, from the primary school to the university, the impact would be even greater.

Conclusion

It would be great to apply the knowledge of activating the creative area of the brain. The exploration of the Avenues of Creativity would have to begin from childhood in the mission of producing great innovators who would have endless great ideas that would help in the development of the nation.

References

- Ament, P. (n.d.) *The innovation history*. Retrieved January 14, 2010, from <http://www.ideafinder.com>.
- BusinessWeek. (2004a) *Billy Durant: Greasing Detroit's wheels*. Retrieved January 14, 2010, from http://www.businessweek.com/bwdaily/dnflash/apr2004/nf20040427_0647_db078.htm.

- BusinessWeek. (2004b) *Pierre M. Omidyar: The Web for the people*. Retrieved January 14, 2010, from http://www.businessweek.com/magazine/content/04_49/b3911015_mz072.htm
- BusinessWeek. (2004c) *Robert Swanson and Herbert Boyer: Giving birth to Biotech*. Retrieved January 14, 2010, from http://www.businessweek.com/magazine/content/04_42/b3904017_mz072.htm
- Goleman, D., & Kaufman, P. (1992). *The art of creativity*. Retrieved March 28, 2006, from <http://www.psychologytoday.com/>
- Harvard Business Essentials. (2003). *Managing creativity and innovation*. United States of America: Harvard Business School Publishing Corporation.
- Longman Dictionary of Contemporary English* 4th ed. (2005). Essex: Pearson ED.
- Mean, L. A. (2006). *On creativity awakening the creative mind*. Subang Jaya: Pelanduk Publications (M) Sdn Bhd.
- Mean, L. A. (2009). *What is creativity?* Retrieved January 5, 2010, from <http://leoannmean.blogspot.com/search?updated-min=2009-01-01T00%3A00%3A00-08%3A00&updated-max=2010-01-01T00%3A00%3A00-08%3A00&max-results=7>
- Najib names 2010 Year of Creativity, Innovation. (2009, December 25). *News Straits Times (NST) Online*. Retrieved January 5, 2010, from http://www.nst.com.my/Current_News/NST/articles/02sick/Article/index_html
- The Oxford Research Agency. (2009). *2010 forecast to be 'The Year of Innovation'*. Retrieved January 5, 2010, from http://www.tora.co.uk/2010-forecast-to-be-the-year-of-innovation_116.html