

LEVERAGING CROWDSOURCING PRACTICES IN SMALL AND MEDIUM ENTERPRISES (SMEs)

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ABSTRACT

The growing Internet of Things (IoTs) and Technology Web 2.0 create a new business landscape. Furthermore, the recent growth in Information Communication Technology (ICT) has triggered SMEs to venture into crowdsourcing practices. Thus, the study attempts to explore the crowdsourcing practices among selected Malaysian SME's. The study employed qualitative method by conducting interview session among SMEs business owners in order to validate the benefits of crowdsourcing that has been practiced by the SMEs in their organizations. The findings indicates that, leveraging crowdsourcing practices serves several benefits to SMEs such as cost saving, brand visibility, problem solving, generate novel ideas and so forth. The study contributes to the understanding of the crowdsourcing practices, add to the body of knowledge on crowdsourcing and serves as a fundamental for future research. In terms of managerial perspectives, the results could provide guidelines and promoting SMEs to embark the crowdsourcing practices to seek for business efficiency and to enhance their business performance. Lastly, to the policy makers, the study serves as source of valuable information and inputs to strengthen the action plan and crowdsourcing programs in order to improve current crowdsourcing practices particularly in the context of Malaysian SMEs.

INTRODUCTION

Nowadays, in order to sustain in a global business environment, many organizations increasingly exploit collective wisdom and efficient cost control. Due to emerging of the Internet and Technology Web 2.0 such as social media facilitate the organization to strengthen their business strategy. Crowdsourcing allows organizations to obtain collective intelligence among heterogeneous of crowds in diverse background and knowledge at different professional fields and expertise (Lee et al., 2015).

The term of crowdsourcing is the combination from the words of crowds and outsourcing represents the process of outsourcing to the crowds (Maiolini and Naggi, 2011). It is refers to the act of organization or institution taking a function once performed by employees and outsourcing it to an undefined group of people in the form of open call (Howe, 2006). Meaning that, the SMEs outsource their tasks to an undefined group of crowds in the form of open call i.e. *via* social media. The crowdsourcers could be company, institution or non-profit organization proposes to an undefined group of crowdworkers such as individuals, formal or informal groups or others companies the voluntarily undertaking of tasks presented in an open call and receive rewards in return upon completion of tasks and fulfil the requirements by the organization (crowdsourcer) (Blohm et al., 2013). Crowdsourcing practice helps the organization to solve the problems, generate new ideas for innovation and accomplish the tasks effectively and efficiently manner. Those activities can be performed *via* Technology Web 2.0 i.e. social media such as Facebook, Website, Instagram and Twitter (Janom et al., 2014b). Therefore, the aim of this study

is to investigate the leveraging of crowdsourcing practices and its benefits among Small and Medium Enterprises (SMEs). It is because SMEs plays important roles in the development agenda of most transition economies in developing countries and contributes to the growing industrial sectors (Mutalemwa, 2015). On top of that, this study also analyzes the scenario of crowdsourcing practices in Malaysia. Finally, discussion and conclusion of the study will be adduced.

LITERATURE REVIEWS

Crowdsourcing Practices

Crowdsourcing was first coined by Jeff Howe in Wired Magazine article in June 2006. The phenomenon of crowdsourcing is define the act of recruiting a large group of undefined individuals from the community i.e. solvers or crowdworkers in order to complete organizational tasks *via* internet based platforms (Howe, 2008). Meanwhile, based on Sykora (2016) has integrated the definition of crowdsourcing is a type of participative online activity in which individual, institution, non-profit organization or company proposes to a group of individuals that is various knowledge, heterogeneity and number *via* a flexible open call or voluntary undertaking the tasks. In return of tasks undertaking, complexity and modularity where the crowds bring their work, money, knowledge or experience that entail mutual benefits. It is relatively new phenomenon appeared a few years ago due to technological progress (Xu et al., 2015) and crowdsourcing also considered as an important opportunity for businesses to obtain external expertise and reduce manpower cost (Kietzmann, 2017). The organization (i.e. seekers or crowdsourcer) hiring a large group of undefined individuals (i.e. solvers or crowdworkers) that is refer to crowds, to work on organizational tasks *via* on line or off line based platforms (Sivula and Kantola, 2016). It means that, the tasks can be performed whether off line or on line and the crowdworkers have flexibility of doing works, locations and durations of their own choices (Arshad et al., 2014). Due to innovation and talent management being major strategic priorities for many companies the crowdsourcing practices may serves as a method to foster organizational innovation through tapping external expertise's knowledge and their creativity.

Even though, the crowdsourcing practice is a simple however it is a powerful concept where it's virtually everyone has a potential to contribute valuable information to crowdsourcer. Surprisingly, the crowdsourcing practices become popular and increased drastically concurrent with the development of internet technologies and Web 2.0 (Zhao and Zhu, 2014). Malaysia is among the eight individual markets in Asia that uses social media extensively, with Facebook as the top social media site (Edosomwan et al., 2011; Parveen, et al., 2016). In addition, the current trend shows that the use of social media such as Facebook as a platform for business has a must. The Internet World Statistics indicated that the growth of internet users in Malaysia from 2000 to 2010 stood at 356.8% (Internet Society, 2015). Out of the recorded 19 million internet users in Malaysia, approximately 16 million are loyal to social media (We are social, 2013). Approximately, 13.2 million Malaysian residents use the social platform, thereby contributing towards its being the 18th most popular ranked site in the world (Socialbakers, 2012). In view of that, it is an opportunity to the SMEs to adapt and leverage the crowdsourcing practices in their business in order to enhance their business performance.

Nonetheless, the study of crowdsourcing requires further attention and need to be explored further particularly in the context of SMEs (Mansor et al., 2018). Hossain (2015) highlighted that many benefits related to the crowdsourcing practices are yet to be explored. It is

because the reviews of crowdsourcing studies are crucial to gain comprehensive knowledge on it. The study on these still in nascent stage and the scholars need to engage actively to enrich this field. Although many researches on crowdsourcing are already accomplished, optimum mechanisms of various types of crowdsourcing are still limitedly known. In addition, crowdsourcing is still an amorphous activity that is not well understood by most businesses but has proven to help some businesses (Warner, 2011).

Currently, Malaysia under government initiatives program called Digital Malaysia, crowdsourcing industry has been identified as a potential industry to uplift the income of the population in the bottom 40% (B40) household income with monthly income less than RM 2300.00 per month (Janom et al., 2014b). Under this program, crowdsourcing is intended to provide opportunities and help these groups in order to earn additional income by performing task available in the crowdsourcing industry. It is due to an increase of household expenses every year as based Department of Statistic Malaysia so that Malaysian government believes by introducing crowdsourcing, it would provide opportunities for this particular group (B40) to increase and improve livelihood and their lifestyle. Again, the structure of the crowdsourcing business process in Malaysia still at infancy stage and remain not been studied constructively (Salleh et al., 2013). In addition, In view of the above gaps, it is very pertinent to study the crowdsourcing practices in the context of SMEs in Malaysia.

Crowdsourcing practices in Malaysia

In Malaysia, crowdsourcing is limited understanding on the successful implementation. Nonetheless, the crowdsourcing concept has seriously given attention in the year 2016 by former Malaysia Prime Minister. He announced the budget provision for 2016 was RM 100 Million in order to materialize crowdsourcing projects. This project was monitored and coordinated by Malaysia Digital Economy Corporation (MDEC) to ensure the crowdsourcing practices successfully introduced and implemented. By having this, it is expected to drives Malaysia to embrace a vibrant digital economy and to ensure Malaysia successfully play a leading part in the global digital revolution (MDEC, 2018).

There are numerous crowdsourcing platforms introduced by the government and non-government agencies *via* Erezeki platform such as Teknologi (M) Sdn. Bhd., Multi Media Synergy Corporation Sdn. Bhd., Hot Bounty and many more in order to encourage the individuals (B40) or SMEs to leverage the crowdsourcing practices in order to increase their income and to increase the business performance *via* digital economy. These are the local platforms where an online marketplace for individual to generate the income and for SMEs to crowdsource their business activities across the web to generate quality leads through network of others, in return for rewards. While the collaboration with international platform from Australia such as Freelancer International Pty. Limited, Designhill.com, Upwork Global Inc. and so forth to help our people and SMEs to connect more than 18 million employers and freelancers globally from over 247 countries & regions (Erezeki 2017).

Furthermore, the SMEs may notify their business activities and generating new ideas for the organizational innovation *via* those platforms. The common crowdsource activities that can be crowdsourced by the SMEs are packaging, production or manufacturing, web development, marketing, product repairing, website development, logistics, training, new product development, product design, advertising and promotion, ideas generation, problem solving and many more (Qin et al., 2016; Maiolini and Naggi, 2011; Xu et al., 2012; Schulze et al., 2011; Jayanti, 2012; Saxton et al., 2013; Shaqrah and Noor, 2017; Schenk and Guittard, 2011; Ye and

Kankanhalli, 2013). Those activities are more economical and cost saving whenever outsource to external crowds rather than performing internally. Moreover, SMEs also could enhance the creativity and organization innovation in order to obtain news ideas for new product development and product improvement *via* crowdsourcing. These may foster organizational innovation through tapping external expertise's knowledge and their creativity (KPMG, 2016).

Moreover, SMEs may offer their products, services, skills, expertise or even the tasks or projects from their business to the crowds in the community. The SMEs may hire part time crowdworkers that possibly among graduates, expertise or a group of individual from communities to complete the tasks. It is because crowdworkers in the crowdsourcing platform consists of various amateurs from low skill to specialized skills (Ye and Kankanhalli, 2013). The SMEs also may advertise or notify their business activities or services *via* social media or crowdsourcing platform to the large organization or crowds in order to perform the tasks and projects. Based on Hanefah et al. (2002) found that the production process of SMEs are usually labor intensive and such firm usually serve as suppliers for the large manufacturing firms. Therefore, the crowdsourcing practice is relatively significant to the SMEs business setting rather than outsourcing to the defined consultants or professional bodies that would be incurred extra operating costs to them.

Numerous crowdsourcing benefits has been discussed and recognized from these practices. Among the advantages or benefits are discussed in the literatures are cost saving, reduce delivery time (Ye and Kankanhalli, 2015), to cater problem on peak demand and generating new ideas for innovation (Marjanovic et al., 2012), access to a multiplicity of competences, ideas and resources (Schenk and Guittard, 2009), reduce the risks faced by organization in the sense that the tasks not crowdsourced to a single provider (Maiolini and Naggi, 2011) and many more. Crowdsourcing remains interesting either to entrepreneurs, or to the public sectors. The positive features of crowdsourcing are ability to bring innovative solutions to difficult problems in a short period of time at minimal costs and an ability to attract brightest minds to the solution process. Another strong side of crowdsourcing is performing simple tasks, which cannot be automated, at a very low cost, or even for free in the short-term (Surowiecki, 2004). Hence, it is necessary and important to embark the study on leveraging crowdsourcing practices and its benefits in the Malaysian SMEs perspectives.

Meanwhile, there are several factors motivate the organization to leverage crowdsourcing. As evidenced in open innovation research by Von Hippel (2005), group and open problem solving approaches encourage the organization to embark on crowdsourcing. It is due to organization may produce better results than people working alone and cognitive diversity (Page, 2007). Moreover, cost saving is also one of the motivation factors the organization leverage the crowdsourcing in their organization. For example Gold Corp is the Gold producer made its geographical databases available to the public and offered a prize to anyone who could inform where to find the gold *via* crowdsourcing. Subsequently, the result of open call enables the company to increase its production from 53,000 to 504,000 ounces per year and managed to reduce production cost from \$360 to \$59 per ounce. In view of that, GoldCorp managed to increase their income from \$100 M to \$ 9 B (Tapscott and Williams, 2008).

Nevertheless, there are several major problems on crowdsourcing practices need further consideration and attention. The problem will occur if the motivation in crowdsourcing tasks is not attractive may lead to the lower participation attention among potential crowdworkers. The crowdsourcers need to contribute a lot of time waiting for a certain extent of innovation ideas to solve the contingent problem (DiPalantino and Vojnovic, 2009). These result the problem on the

number of registered teams unequal to the amount of innovative solutions received. Another drawback of the crowdsourcing as explained by Archak and Sundrarajan (2009), the crowdworkers may decide to quite their participation despite their registration which affect the crowdsourcing companies tend to receive fewer quality solutions due to the lower participant's motivation in providing companies with innovative solutions (Lee et al., 2015). On top of that, the solutions suggested by crowdworkers could not align to the companies' objectives and expectations. Consequently, the crowdsourcing company would not accept the proposal due to unsuitability even the quality and ideas are excellent and unpredictable (Howe, 2008). In nutshell, these major problems will generally avoid the company to adopt crowdsourcing practices in their organization. However, these problems can be solved by proper planned, organized and coordinated during crowdsourcing process (Lee et al., 2015).

METHODS

This study applied qualitative methods by conducting interview session. Purposive random sampling has been used due to purposive (judgment) sampling technique is a non-probability sampling technique in which the study selects the sample based on the judgment about several appropriate characteristics required of the sample member (Zikmund et al., 2010). The inclusion criteria of the study satisfies the following criteria; first, the respondents must actively practice crowdsourcing and registered as small and medium Malaysian SMEs in order to ensure the accuracy of the data. Second, the organization should fulfil the criteria of Malaysian SME based on number of permanent employees and total annual sales turnover. The expert's opinion obtained from SMEs Owners/Chief Executive Officers (CEO) to validate the crowdsourcing practices and its benefits. Initially, three SMEs Owners/CEOs were selected in order to obtain preliminary ideas on how crowdsourcing being practiced and it benefits in the SMEs. Finally, content analysis approach was used to analyze the findings from each expert opinion.

RESULTS AND DISCUSSION

Based on the above reviews, many crowdsourcing benefits can be obtained by the companies. It is also not limit to the context of SME however there are numerous evidences and studies have been conducted such as investigating organizational task crowdsourcing (Ye and Kankanhalli, 2015); the effect of crowd voting on hotels; crowdsourcing business models (Kohler, 2015), crowdsourcing business model for B40 income earners (Zakariah et al., 2016) and so forth. On top of that, looking at the issues and problems faced by the SMEs somewhat lacking compared to others developed countries (Hooi and Ngui, 2014), unable to achieving high performance due to challenges faced in innovation and technology adoption, human capital development, access to financing, market access, legal and regulatory environment and infrastructure (World Bank Productivity and Investment). Furthermore, it is shows that the SMEs went bankrupt within 5 years of commencement of their business and the failure rate of the business is an estimated 60% (Ahmad and Seet, 2009) and they are vulnerable to local and global competition (Magasi, 2016). In view of the above, this study propose the crowdsourcing practices because this practice would be seen as one of the good business strategy to close the above gaps mainly in the context of SMEs in Malaysia in order to enhance their business performance.

To materialize the current study and to validate the crowdsourcing benefits, a preliminary study among three SMEs business owners were conducted. The findings and discussion are as follows.

SME A: (Foods & Beverages, Crackers)

SMEs are a small enterprise and categorized as foods and beverages sector. A 38 years old female CEO, hold the degree in International Business, employed 15 permanent employees and hiring 5 to 10 crowdworkers depending on projects and tasks. The crowdsourcing activities are packaging, production, filling, auditing, marketing, record keeping, IT (Blog development).

The CEO pointed out, crowdsourcing practices portray and introduce their brand image to the outsiders *via* an assistant from the crowdworkers. It is because of marketing activities *via* Facebook help their company to obtain an opportunity to market the products at the stores such as Giant and Tesco by using Agromas brand. Other than that, CEO explained that leveraging crowdsourcing practice in the company, the products brands can be introduced and visible to the crowds/customers at lower cost, fast product delivery, enhance business rapport with external crowds as well as increase their business performance. Furthermore, the CEO also highlighted that the unique of crowdsourcing business model the company may reduce their operating cost. It is clearly explained by the CEO.

“Crowdsourcing has reduced our operating costs. Interestingly, in some circumstances the tasks are perform at their own premises or at home whereby the company unnecessary to invest in fixed costs such as to provide building or workstation to them. We can’t afford to invest to all these since we’re lack of capital.” (Translation).

In addition CEO agreed that, the crowdsourcing practices assist the company to minimize the issue of marketing cost whereby the company would advertise and promote their products at lower cost eventually increase their brand awareness of the products. In some circumstances, the communities in persons (such as senior aunty) are better than permanent employees where they are more experience and knowledgeable in the traditional foods and beverages. The company used their specialized skill and knowledge to improve current product such as to improve product taste and product quality. For example *“bahulu and rempeyek”* types of traditional Malaysian crackers will be crispier and improve the taste by adding *“X”* ingredient during the process of mixing of raw materials. This suggestion and new ideas given by crowdworkers that enables to improve product taste, packaging, product shape, product color and etc. It is according to the statement by the CEO.

“The external parties (crowdworkers) are very experienced and possessed very good skills and knowledgeable in traditional foods and beverages. They are willing to share new ideas or input to improve our product durability, taste and product appearance. I noticed that, our products quality are better and increase our sales.” (Translation).

The CEO mentioned that, crowdworkers given several ideas to improve packaging design, work process from manual to semi auto or fully auto in order to speed up production process. Hiring crowdworkers from the communities, the company is able to solve problem on product durability. For example the problems of our two products that are easily defect. This problem can be resolved by crowdworker through formulating new ingredients consequently improve the product durability. Moreover, the crowdworkers from universities students perform the tasks during the semester break would improve the routine tasks such as systematic filling,

billing, account and record keeping. For example, these crowdworkers help us to settle the problem on administrative activities such as filling, record keeping, accounts checking and auditing and to obtain certification purposes. Overall, CEO agreed that leveraging the crowdsourcing practices able to resolve several problems on product durability and administration activities from various inputs and ideas drives to increase their business performance.

SME B: (Cookies and Biscuits)

SME B is a medium enterprise producing cookies and biscuits. A 58 years old female CEO, hold the degree in Education, employed 75 permanent employees and hiring more than 100 crowdworkers depending on the demand of the products. The crowdworkers are the individual from the communities, students from higher institutions, secondary school and teachers. The crowdsourcing activities are packaging, production, transportation and marketing.

Leveraging crowdsourcing practices as explained by CEO, crowdsourcing promotes product brands and create product awareness. Our product brands can be introduced to the outsiders and increase product visibility among the customers. She also added that, hiring crowdworkers help the company introduce the products to the external parties at various regions. Crowdworkers hired from the community would recommend; introduce the products to their relatives; friends and become an agents to the company. Interestingly, the power of crowds “*word of mouth*” and social media significantly promote their product in the community and minimize the issues of promotion activities such as extra efforts and budget. CEO agreed that *via* crowdsourcing the products brands can be visible and introduce to the crowds/customers at lower cost, within a short period of time, increase business networking and increase market outreach as well as improve business performance. It can be demonstrated from the CEO statement.

“By engaging crowdsourcing, the crowdworkers help us to introduce our products to their relatives and friends...then an advertisement via Facebook has increased our cookies and biscuits brand’s (brand visibility). These reduced our marketing costs eventually increase our products demand...via crowdsourcing help us to solve the issues of peak demand because we used external parties (crowdworkers) to help us to increase our production. We cannot say “NO” to our customers when they need our products” (Translation).

CEO posited that, the crowdworker from the higher institution i.e. student’s contributes to improve their existing packaging design. The crowdworkers outside the company also contributes to the product improvement in term of product taste, product colour and design. Those are the persons so call “*expert*” due to their experience and knowledge to a particular product. Meanwhile, the crowdworker provides a good suggestion and solution to improve production layout to be fully utilized and consequently save production space. Due to their knowledge, skills and creativity the production space can be planned and arranged systematically. In some circumstances, *via* crowdsourcing the crowdworkers would assist the company to source the suppliers whenever the crowdsourcer supplier’s unable to deliver the raw material. In short, CEO strongly recommended that SMEs should leveraging crowdsourcing in order to access specialized skills and to improve daily operation activities. It is because the company facing several constraints such as lack of skilled manpower, lack of financial and inability to hire consultant or professional staffs due to expensive service charge.

SME C: (Cosmetics and Household Items)

SME C is a medium enterprise producing cosmetics and household items for their own customers and Original Equipment Manufacturer (OEM). A 46 years old female owner-manager, hold the degree in Accounting, employed 65 permanent employees and hiring 10 to 15 crowdworkers depends on the demand of the products. The crowdworkers among the individuals from the communities. Among the crowdsourcing activities are packaging, production, transportation, inventory, training and marketing.

The owner-manager explained that hiring crowdworker from the community helps the company to promote their product brands at surroundings areas *via* the “*words of mouth*”. Instead of using traditional “*word of mouth*”, the company also utilized the social media in order to ensure their product visible to the crowds. The owner-manager mentioned that, the promotion cost can be reduced by leveraging crowdsourcing practices. The owner-manager pointed that their OEM customer’s has increase due increase because of increase brand awareness among customers.

The owner-manager strongly agreed that crowdsourcing practice helps the company to introduce the product brands and penetrate the market with minimum costs. It would reduce their operating cost and create a better business performance. The owner-manager also emphasized that, particularly during peak demand due to an increase in products order from OEM customers, crowdsourcing practices is the best strategy to cater these problem. It is because, the company cannot afford to hire many staffs due to budget constraints. Thus, crowdsourcing resolve the problem of manpower shortage. In short, crowdsourcing provide many benefits to the company and would minimize the problem on lack of skills and manpower.

Interestingly, the owner-manager also highlighted that *via* crowdsourcing practice the company may resolve the issue on product fake *via* packaging techniques. These inputs and ideas put forwarded by crowdworker’s from the university graduates. It is clearly stated from the statement by the owner-manager.

“We have a problem on problem fake, there are many competitors started to imitate our products...thus we generate ideas from universities graduates to help us to solve this problem. Finally, we’re able to solve this problem via confidential code from packaging. All these are ideas obtained via crowdsourcing. (Translation).

On top of that, leveraging crowdsourcing practices the company may enhance idea generation and innovation to the company *via* product improvement such as new material formulation, feedback and suggestions received from the crowds. The issues of quality and waste can be reduced since the crowdworkers will be paid based on the quantity and quality output. Overall, the owner-manager agreed that crowdsourcing practices definitely serve various advantageous such as resolve several business problems such as product fake, manpower shortage, productivity and so forth. By having this, the company may enhance the business performance. On top of that, the owner-manager also emphasized that using crowdworkers the company may also reduce the labor cost and minimize the operating cost. It is clearly emphasized by the owner-manager.

“Outsourced the tasks to the external parties may reduce our labor and operating cost. Tasks performed by crowds (crowdworkers) are cheaper than perform internally because we only pay to the crowds based on the job being done and the company not necessary to bear any extra compensation and benefit costs to the crowdworkers.” (Translation).

Summarily, based on the above findings it is proven that, all SMEs business owners strongly agreed that by leveraging crowdsourcing practices serves numerous benefits such as reduce operational cost, access to specialized talent, obtain new knowledge and experts from large pool of crowds, reduce time product delivery, ideas generation and obtain feedback for problem solution. Other than that, crowdsourcing practices may promote brand visibility in the sense that increase the product and service awareness by using Technology Web 2.0 such as social media. In view of the above, the advantages and benefits from the crowdsourcing practices eventually boost their business performance.

LIMITATION AND FUTURE RESEARCH

In respect to the current study, the study only employed a qualitative approach to access the crowdsourcing practices and its benefits. It is acknowledge that, the limited number of respondents and this qualitative approach may limit the findings and generalization. Consequently, a sophisticated and extended research model is needed to be developed and empirically test by using quantitative approach. The study also recommends future studies to include larger sample of SMEs operate in intense competition and dynamic environment. Last but not least, future study also may integrate the legal and employment issues and extent to the longitudinal study.

CONCLUSION

It is concluded that, crowdsourcing practice is a one of effective business model by recruiting a large group of undefined individuals from the community i.e. solvers in order to complete organizational tasks. Numerous advantages and benefits can be leveraged *via* crowdsourcing practices particularly in the context of Malaysian SMEs. Amongst the benefits i.e. cost saving, reduce time product delivery, overcome peak demand, organizational innovation, brand visibility, access to specialize skills, solution diversity and many more. Based on the qualitative data it is proven that, all SMEs business owners strongly agreed that crowdsourcing contributes positive implication to their business. The study also contributes to both theoretical and practical contributions such as to enrich the current literatures on crowdsourcing and foundation for future research particularly in the context SMEs in Malaysia. Meanwhile, the practical contributions to the policy makers could assist them formulating and enhancing the effectiveness of current crowdsourcing programs. To an entrepreneurs the study enhance their knowledge and understanding towards crowdsourcing practices and its benefits that positively contributes to their business eventually promoting other SMEs to embark the crowdsourcing business model in their companies.

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