



PKS HELP Programme Development through Centre of Technology in Polytechnic

Khatijah Mohammed Saad¹, Mazlisa Mohamed Isa^{2*}, Fadilah Yurani³, Muhammad Zaffwan Idris⁴

¹Department of Art, Computing and Creative Industry, Sultan Idris Education University, 35900 Tanjong Malim, Perak, Malaysia, ²Department of Design and Visual Communication, Polytechnic Ibrahim Sultan, KM10 Jalan Kong Kong, 81700 Pasir Gudang, Johor, Malaysia, ³Department of Design and Visual Communication, Polytechnic Ibrahim Sultan, KM10 Jalan Kong Kong, 81700 Pasir Gudang, Johor, Malaysia, ⁴Department of Art, Computing and Creative Industry, Sultan Idris Education University, 35900 Tanjong Malim, Perak, Malaysia. *Email: lisacdecpis@gmail.com

ABSTRACT

The purpose of this paper is to provide a review on the PKS HELP as a programme developed under the Centre of Technology (COT) of Polytechnic Ibrahim Sultan (PIS) through its collaboration with industries project. Final semester students diploma in graphic design and lectures of the Department of Design and Visual Communications, PIS involved on this programme for the whole semester. The project participants will attached to small and medium enterprises (SMEs) under Lembaga Kemajuan Johor Tenggara (KEJORA) to help SMEs to expand and commercialize brand design and product packaging. PKS HELP consists the process of (1) Consultation, (2) idea and design development and (3) research and development and innovation. The process will give exposer to students and lecturers in experiencing real industry practice and develops their professional practice. It is hoped that PKS HELP programme as presented in this paper will be beneficial to both, COT and KEJORA in promoting stronger industrial linkages this increasing national economic growth through SMEs products.

Keywords: Centre of Technology, Collaboration, Design, Branding

JEL Classifications: M10, J10

1. INTRODUCTION

Small and medium enterprises (SMEs) are one of the key contributors to the global economic development. In Malaysia, the SMEs have played an important role because of its trade activities that helped to increase competitiveness and served as a backbone of economic growth in Malaysia. There are various definitions given to the SMEs based on different approach of criteria and distinct standards.

In general, SMEs in Malaysia are identified according to the quantitative criteria such as the number of employees, amount of assets the enterprises possess, amount of paid-up capital, and the sales turnover per annum (Jamak et al., 2014; Khairuddin, 2009; 2010; 2011). In 2014, the National SME Development Council stated that SME in Malaysia is to be measured based on

the number of employees and annual sales turnover, which being accepted by the Malaysian Government as criteria in providing assistance. Packaging as an integral part of marketing is one of the various areas of assistance that being provided by the Malaysian Government for SMEs. Thus, the Malaysian Government through SME Corporation has initiated the Brand Innovation Centre and National Mark of Malaysian Brand, as well as running a programme called Groom Big, which organized by Ministry of International Trade and Industry (MITI) (Figure 1).

Today, higher education has become one of the energetic economic growth and national competitiveness (Moeliodihardjo et al., 2012). Therefore Polytechnic Ibrahim Sultan (PIS) as an institution of higher education play the important role in improving the country's economy in the labor provisions, particularly in the creative industries. Skilled labor in particular design can help

SMEs from the aspect of branding, packaging, corporate identity and advertising. This may indirectly improve product images SMEs to local and international markets. Therefore, polytechnic transformation which aims to build capacity to develop new polytechnics human resources to meet the needs of the new economic model based on innovation and creativity. Polytechnic transformation concepts include systemic changes that lead to the creation preferred institution), (employable graduates) and the construction of a positive perception among the community of polytechnic education. Transformation agenda is based on four pillars, namely the empowerment of polytechnics towards a selection comparable to university; development of programs of study and research in the field of propulsion power is rooted in the polytechnic; empowering citizens with knowledge polytechnics. Among the major initiatives being undertaken to meet the transformation agenda is to establish the Centre of Technology (COT) in niche areas for each polytechnic.

COT in the polytechnics also is a centre where science and technology is also used in certain niche areas or in applications through the provision of specialized services, the implementation of research and innovation and improving the quality of teaching and learning. Generally COT polytechnics focus on centre of knowledge, expertise and skills acquired by a polytechnic in certain niche areas as well as developing knowledge, sharing of expertise and best practices through strategic partnerships with industry. COT polytechnic focus in collaboration, consultancy engagement, research and innovation, publication and recognition and excellence in pedagogical approach or teaching and learning.

Smirnova (2014) had stated a collaboration between higher education and industries is also a key to increase innovative performance of an economy. Further to this, PKS HELP are created as a design collaboration program developed under the COT of PIS through its collaboration and consultation with industries project. The program involves the final year students and lecturer in Diploma in Graphic Design with the SMEs of Lembaga Kemajuan Johor Tenggara (KEJORA). The program were conducted for 5 months (one semester), where students are attached to the SMEs and required to prepare a complete project planning and art direction in a way to expand and commercialize SMEs brand design, advertising and product packaging. It's also to full fill COT's key performance indicators (KPIs) and ensures the students will get the real-life situation in design field and prepare them to be more professional in the future.

2. LITERATURE REVIEW

2.1. COT

COT polytechnic core activities; collaboration, teaching and learning and expert services can be explained in Figure 2. Salleh and Omar (2013) describe that there are five types of collaboration approaches between university and industry in Malaysia. There are knowledge exchange, research and development, consultation work and product commercialization. However, in PIS under usually comes in different modes of engagements. Collaboration refers to polytechnics in collaboration with

Figure 1: New definition of small and medium enterprises (Corp. SME, and Council, 2013) Illustrate by author

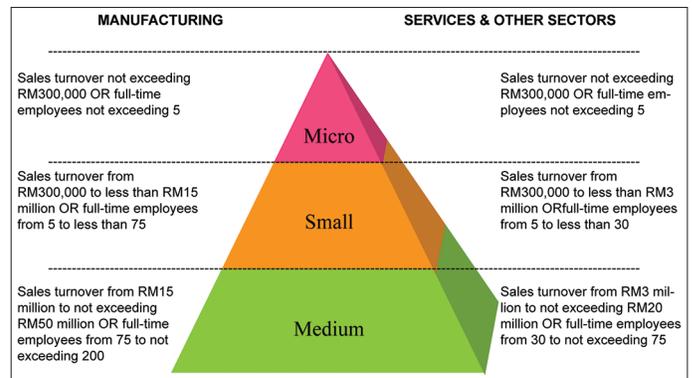
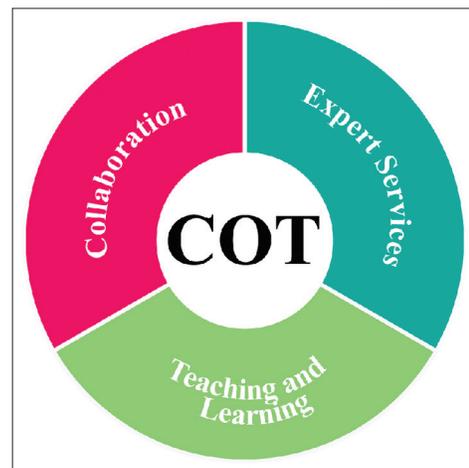


Figure 2: The element of Centre of Technology core activities



industry, universities and other agencies such as the government, private sector, government-linked companies, statutory bodies, non-governmental organizations and the communities in which both parties will contribute their knowledge and skills to achieve common goals in the field of thrust. Strengthen the collaboration project between polytechnics and industry/institutions in the development phase of the project with regard to getting a cradle students as well as trying to take advantage of the collaboration is to commercialize innovative products. In expert services polytechnic provides specialized services specific to the needs and demands of customers involving problem solving consultation, business planning and product development. Strategies and action plans that can be implemented by the management of the consultancy is COT polytechnics. COT provides consulting services using the expertise of lecturers in the niche area, specific to the needs and requirements of customers such as problem solving projects, business planning and product development consulting. For that goal it is needed to develop education approach through teaching and learning (Nurdin, 2012). Development of teaching and learning materials, the production of new and innovative pedagogical approach by exploring the latest technologies to enhance the delivery of creative learning and teaching and developing course learning modules to be used for running programs which is reflect to the practical activities in industries field.

2.2. PKS HELP Programme

The PKS HELP programme in this study, involves three component; PIS, KEJORA and SMEs is described as Figure 3. Generally ever component holds a different role in order to build up successful collaborative activities. PKS HELP require a qualified and skill full students to get involves in this collaboration activity. Final year students from diploma in graphic design was a perfect candidates to involves in this collaboration project, since they had through many semester to learned and trained in the graphic design field. In that case, they have to be knowledgeable in graphic design discipline and enthusiastic about the project. They also need to understand and show interest towards projects. As a beginning process, students are required to conduct a complete research and data collecting of the company's or SMEs. They have to define a basic information such as company's background, aim and goals, product or services provided and everything that can contributes for their project planning and development. Recognize the project goal and their responsibilities are a must to every student. Three times meeting with the company's owner is one of the project requirements. The most important things are to identify the SMEs requirement in order to help them in promoting their business and achieving potential business opportunities, through graphic design services. When they have completed the research, they have to prepare a design proposal and specify a concept, art direction and idea to meet the company's and market requirement. Once the design proposal approved by the owner, students will proceeds to the design and idea development process, where they have to consult the idea together with their lecturers or project advisor to get the best result. As a designer, students need to propose a creative and yet a marketable design to ensure it can be accept by the industry. They need to gives full commitment and project their understanding of the project to produce a good design proposal. Consultation and critique session need to be done regularly, to ensure the design proposal really meets any requirement.

2.3. PIS (Lecturer and Students)

During the collaboration process, lecturer takes a role as project coordinator where they have to initiate the project contact with other potential partners (in this case, KEJORA and SMEs) and introduce the project proposal clearly. The proposal gives SMEs an opportunity to identify the project aim and objectives, the project

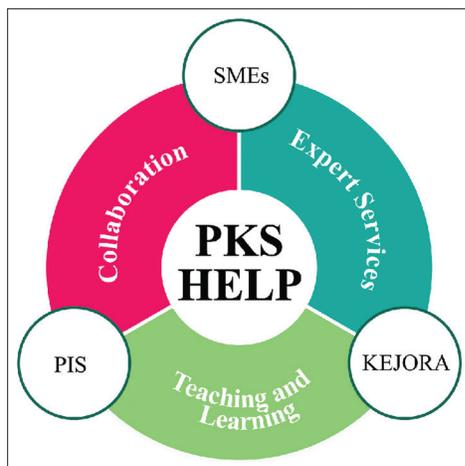
timeline, the operational methods of project and responsibilities of each party. Once the contents have been approved by the SMEs, project coordinator will conduct a small meeting and assign students with the SMEs. According to Zaharatul et al. (2012) through the process of teaching and learning, student involvement in completing tasks using real projects with industry are important to improve the knowledge and skills to meet the current scenario of a competitive job market demand. Thus, a meeting must set continuously with students to ensure their progress have improvements and meet the commercial standard. In this case, project advisor are responsible to advice and monitor students' progress and development, to ensure students could manage and complete the project successfully.

2.4. KEJORA

KEJORA responsible to develop and encourage economic and social activities in their region. In this collaboration project, they responsible in providing a lists of potential SMEs to be part of the collaboration partnership. Moreover, KEJORA also play a role in monitoring all SMEs involved and ensure they provide full cooperation to the project. While SMEs play a main role in the collaboration project. Their role is to gives full commitment by providing any useful information that can be use in the collaboration project. In this case, they need to really understand project requirements and ready to share any information, knowledge or technology that are required by students. They need to identify clearly anything for their business needs, so that it can be delivered to students in a completely perfect. It also can help students to conduct a good research and develop their ideas with the detailed information. In addition, they also need to assists students during research and be more flexible in providing any information required.

KEJORA provide a list of selected SMEs in Johor Bahru. KEJORA is an agency under the Ministry of Territory and Rural Development with its function as a Territory Development for Johor. The territory division includes a 16% area of Johor with 300,111 ha. It is divided into two smaller territory which is Johor Tengah (149,009 ha) and Pengerang (151,356 ha). Located at two districts which is Kota Tinggi (75%), and Kluang (25%). Founded on 1st June 1972 under Parliament Act 75, its objectives was to reduce the economic imbalance, creating job opportunities to community and boosting the economic growth. Play a role as an agency that responsible to develop and encourage economic and social, KEJORA also help and attempt economic and social development, resident development, agriculture development, entrepreneur development, trade development, control and coordinate economic and social activity implementation. Officially, in this collaboration project the whole process was between Politeknik Ibrahim Sultan and Economic and Entrepreneur Unit (UEU) of KEJORA. UEU was responsible to strategies, coordinate and monitor the economic development in some particular sectors of the KEJORA region. Its functions was to plan and coordinate the development of the industrial sector which involves investors, private company, Johor State Government and agencies involved in industrialization such as MITI and Malaysia External Trade Development Corporation. It also responsible in planning, coordinate and implement entrepreneur development programmes for entrepreneur or SMEs

Figure 3: PKS HELP collaboration partnership



under KEJORA and plan strategies to develop the economy through existing resources available in various sector for the residents of the KEJORA.

2.5. SME

There are three types of industries in Malaysia, namely large companies, multinational corporations, and SMEs, which usually cooperate with universities to implement collaborative activities (Salleh and Omar, 2013). In PIS, SMEs are the one of collaboration partnerships. SMEs participating in PKS HELP programme are listed by the KEJORA. KEJORA cooperation and PIS was in their efforts to assist entrepreneurs in the development of added value products or services to encounter the standards of the branding: Image, packaging and advertising that can compete in local and international markets. Categories of food products and beverages, health and beauty products, handicrafts and services are among those offered by SMEs involved with PKS HELP program.

3. RESEARCH DESIGN

In this study PKS HELP programme practiced a very common process which indicates three stages of development: Consultation process, design development and outcome or result to ensure the activities run effectively. Putnik et al. (2008) had stated that collaboration is a process of sharing information, resources and project management responsibilities in achieving a common goal by the participants through a mutual understanding. Every collaboration process has its unique and different way. The consultation process between PIS, KEJORA and SMEs involves branding the entire corporate identity, advertising or packaging in accordance with the needs of the SMEs involved. Fixing the needs of every SMEs will determine the design development between lecturers, students and SMEs as clients. The level outcome/result, the final results will be presented to the client’s products and evaluators. Branding theory in 1960 The American Marketing Association defined a brand as a name, term, design, symbol that identifies one seller’s good or service as distinct from those of other sellers. The legal term for brand is trademark. A brand may identify one item, a family of items, or all items of that seller (Mitchell et al., 2012). From this, packaging design theatres an important role as a means of communication between the product and the brand (Abidin et al., 2014). Creative and innovative packaging can make products to compete with other major producers. In the competitive world of food retailing in particular, the packaging is very important in the competition between different products as a form of continuous communication (Wells et al., 2007).

The implementation of this program is based on the modification of the Guidelines Final Project (Figure 4) issued by the Division of Academic Development, Department of Polytechnic in 2012. The collaborative process began with the project overview and its requirements – Includes aims and objectives, operational method, the project timeline, and the involvement and responsibilities of the parties in the collaborative process to the end product. Mutual understanding had to be achieved and understood by all parties to the responsibilities towards the project. The next process will need a full commitment from all parties, the consultation require a complete data collection to ensure a good design proposal can be

prepared. Consultation process will be carried out by students with entrepreneurs for almost half semester. As a project coordinator, the lectures will supervise student’s idea developments and suggests the best design to be proceed by the clients or the owner. The final developments requires students to prepare a final design mock-up, dummies or an artworks as a final design for the collaboration project.

The final stage in the process of collaboration is to get an approval from the company. It is to ensure that the process of collaboration has really achieved the project goal and accepted by the other parties. In conclusion, several advantages can be gained from the implementation of the PKS HELP. Students will have a chance to exhibit and promote their ideas and creativity through

Figure 4: Collaboration and consultation process

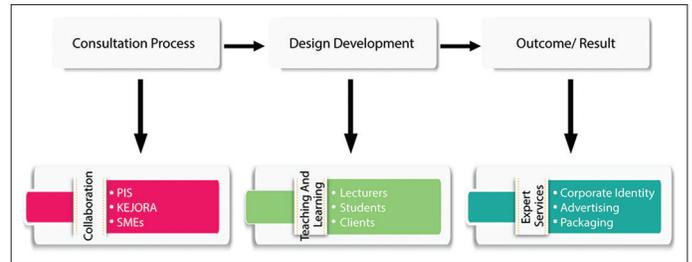
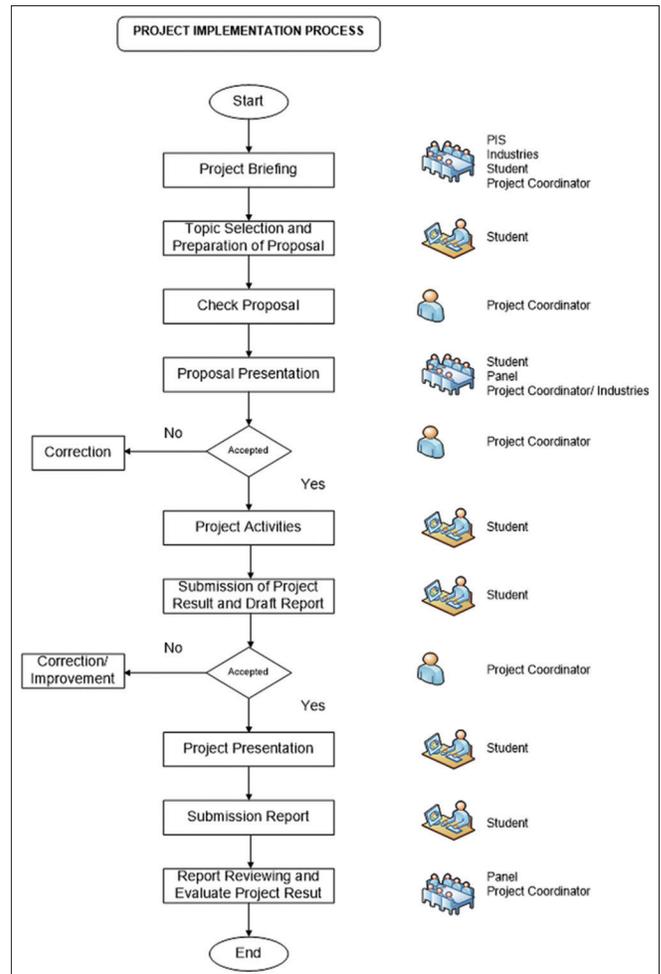


Figure 5: Project implementation process (Akademik, 2012)



VISCOM SHOW. In addition to promoting professionalism among students and lecturers, this program would create a new method in the teaching and learning process. Surely it can enhance the competitiveness and resilience of students in producing professional work to the real life experience (Figure 5).

4. RESULTS AND DISCUSSIONS (FIGURE 6)

Results of the current study are presented in Figure 6.

5. CONCLUSIONS AND SUGGESTIONS

Overall, the results show that there are numerous benefits that derive from PKS HELP programme to COT including benefits to PIS, KEJORA, and SMEs. The interaction between polytechnic and SMEs has been considered as a strategic instrument for promoting stronger industrial linkages to increased national economic growth through SMEs products. This collaborative project demonstrate that a combination of multi disciplines brings a new approach in

Figure 6: Visual audit table of design output

Category		Visual	
		Before	After
Belanga Sakti Food Industry	Corporate Identity Design Rebranding		
		This is an original version of Belanga Sakti Food Industry. This original logo uses the image of a chef holding a pepper shaker. Pepper represent the main ingredient in food (spices), produces by Belanga Sakti Food Industry	This is the design propose by PIS students for Belanga Sakti Food Industry. The design represent a pot, in Malay called 'Belanga'. The tendril represents a letter 'S' and mean for 'Sakti'. Purposely using an earth tone colors, it's represent the color of spicy food – significant to Malay food/taste
	Packaging Design Rebranding		
		Belanga Sakti original product was pack in a plastic bottle. The label design considered as out of date, and pack with images and typefaces	Students new design proposal is more simple and clean. By using green concept, student apply recycle paper material for product label and glass jar for product packaging
Ranorm Batik Creation	Corporate Identity Design Rebranding		
		The original design of Ranorm Batik Creation identity was very simple and less use of color. More to logotype style, the original version represent the quality of line for batik canting, to represent the strength of the company	New design proposed by the students are more elegant in design and colors. However, the main features of batik canting of Ranorm Batik Creation still maintain. The new design emphasis on the simplification of floral elements in 'Ranorm' typeface
Aniera – Virgin Coconut Oil (Vco)	Packaging Design Rebranding		
		The following is a design for virgin coconut oil products produced by Aniera enterprise. A very clear image of coconuts used in label design to show main ingredient used in this product. The overall layout of inconsistent and some words difficult to read	Students develop a simple and clean design. Everything simplified and some graphic elements has reduce for a minimal design concept. A recycle material used for label and product secondary pack

many aspects. Collaborating with various discipline allows the sharing of information, transferring knowledge and technology indirectly. Cooperation in education can bring many benefit to the institution, such as creating new teaching and learning methods that are more realistic where students are exposed to real work situations. It also can help institutions identify and assess the marketability of students and value existing curriculum to meet the current market needs. Some improvements can be made in existing teaching and learning process to a better level. For the COT, this collaboration will contribute in research and innovation, as well as introduce COT as a centre of excellence that can offer expert services in the creative design field. As a consequence polytechnic's KPIs will achieve. Furthermore, on KEJORA side this collaboration helps UEU identify potential SMEs received product development grants to develop their businesses. They also strategies on SMEs product or service development and future planning. For SMEs, collaboration provides many benefits including company and product development, identity and brand development, commercialization and profit increment.

REFERENCES

- Abidin, S.Z., Effendi, R.A.A., Ibrahim, R., Idris, M.Z. (2014), A semantic approach in perception for packaging in the SME's food industries in Malaysia: A case study of Malaysia food product branding in United Kingdom. *Procedia - Social and Behavioral Sciences*, 115, 115-130.
- Akademik, B.P. (2012), *Garis Panduan Projek Akhir*. Putrajaya, Kuala Lumpur. Available from: <http://www.eprints.utm.edu.my>.
- National SME Development Council, (2013), *guideline for new sme definition - SME Corporation Malaysia*. Available from: http://www.smecorp.gov.my/images/guideline_0.pdf.
- Jamak, A.B.S., Ali, R.M.M., Ghazali, Z. (2014), A breakout strategy model of malay (Malaysian indigenous) micro-entrepreneurs. *Procedia - Social and Behavioral Sciences*, 109, 572-583.
- Khairuddin, H.M. (2009), *Developing Capabilities Among Small and Medium-Sized Enterprises in Malaysia*. Kedah: UUM Press. p17.
- Mitchell, R., Hutchinson, K., Bishop, S. (2012), Interpretation of the retail brand: An SME perspective. *International Journal of Retail and Distribution Management*, 40(2), 157-175.
- Moeliodihardjo, B.Y., Soemardi, B.W., Brodjonegoro, S.S., Hatakenaka, S. (2012), University, industry, and government partnership: Its present and future challenges in Indonesia. *Procedia - Social and Behavioral Sciences*, 52, 307-316.
- Khairuddin, H.M. (2010), *Fundamental Issues in Small and Medium-sized Enterprises*. Kedah: UUM Press.
- Khairuddin, H.M. (2011), *Managing Small and Medium-Sizes Enterprises: The Malaysian Perspective*. Kedah: UUM Press. Available from: <http://www.uumpress.uum.edu.my>.
- Nuridin, M. (2012), Center of technology (COT) for industrial product development through collaboration and partnership in polytechnic education. *Procedia - Social and Behavioral Sciences*, 52, 207-216.
- Putnik, G.D., Klinger, K., Ash, J., Snavely, J. (2008), *Encyclopedia of Networked and Virtual Organizations*. IGI Global Information Science Reference. p1.
- Salleh, M.S., Omar, M.Z. (2013), University-industry collaboration models in Malaysia. *Procedia - Social and Behavioral Sciences*, 102, 654-664.
- Smirnova, Y.V. (2014), Attitudes of companies in Kazakhstan towards knowledge collaboration with universities. *Procedia - Social and Behavioral Sciences*, 109, 639-644.
- Wells, L.E., Farley, H., Armstrong, G.A. (2007), The importance of packaging design for own-label food brands. *International Journal of Retail and Distribution Management*, 35(9), 677-690.
- Zaharatul, A.A.Z., Shukor, A.H., Ghazali, A.A. (2012), Smart tri-partite partnership: Polytechnic-industry-student. *Procedia - Social and Behavioral Sciences*, 31(2011), 517-552.