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**Citation** (please note it is advisable to refer to the publisher's version if you intend to cite from this work)

**Belal, HM, Othman, SN, Zaidi, MFA and Shirahada, K (2019) Collaboration Impact on Social Well-being for Business Sustainability: A Case Study of a Malaysian Water Treatment SME Company. International Journal of Services and Operations Management. 34 (3). pp. 385-404. ISSN 1744-2370**

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## **Collaboration impact on social well-being for business sustainability: a case study of a Malaysian water treatment SME company**

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**Abstract:** This study demonstrated how collaboration advances the manufacturing-based industry to transform its business structure as a social service-oriented and well-being solution, thereby being able to sustain its business vis-à-vis market competition. Thus, this paper presents an approach for industry analysis from the corporate collaboration rationality perspective. The study was performed in the Malaysian water management service industry and examined the operations of a small and medium-sized enterprise (SME) water treatment company as a case example. Data were gathered by conducting an explorative questionnaire survey with the SME water service provider in Kedah, Malaysia. Potential scenarios were identified for establishing viable future directions of SMEs, which include the needs of mutual corporate collaboration for service encapsulation, and ecosystem oriented approach for social welfare value creation. This research can help overcome the managerial challenges of a company, thus enable it to succeed in the commercial market by ensuring service-oriented social well-being solutions.

**Keywords:** service; well-being solution; small and medium-sized enterprises; SMEs; corporate collaboration; water management; sustainability.

**Reference** to this paper should be made as follows: Belal, H.M., Othman, S.N. and Zaidi, M.F.A. (xxxx) 'Collaboration impact on social well-being for business sustainability: a case study of a Malaysian water treatment SME company', *Int. J. Services and Operations Management*, Vol. X, No. Y, pp.xxx-xxx.

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## **1 Introduction**

Service concept within a product-based firm (servitisation, Vandermerwe and Rada, 1988) is a journey to build capability in providing service-based value by enhancing products that are offered. In academics the servitisation is defined as the transition process of adding service concepts into product-based business (Belal et al., 2012). This concept may not be new to scholars, but it is not established enough to be practiced in the industry. Because, adapting the servitisation and its implementation within a typical typical business firm is a difficult task. To adapt an effective servitisation strategy, organisational philosophy change and improving the performance capability (Reinartz and Wolfgang, 2008) by managing the interaction of business, people expertise supporting cultural shifts in the organisational blueprint, technology and system integration competencies are required (Daim et al., 2009; Wise and Baumgartner, 2000; Oliva and Kallenberg, 2003; Weeks, 2010). Servitisation is more than only adding services to products or product-based innovation, it's about viewing the company as a service provider (Baines, 2013) including in terms of what is offered to the customer, but also in how products and services are designed, produced, delivered, and marketed (Bititci et al., 2003; Martinez, et al., 2010). It is a resource-based organisational process. Thus, the transition of a company from a product-centric vision to a service-centric vision is still poorly understood and complex concept (Voss, 1995; Tukker, 2004; Johnston, 2004). Although this concept had received more attention by western cultures and big corporations, it is still being explored by the small and medium enterprises (SMEs), especially in developing countries like Malaysia. Due to the open economy policy, globalisation, and potential effects of the trans pacific partnership agreement (TPPA), Malaysia's SMEs will not just have to compete at the local marketplaces with local companies, instead they would have to compete with multinational corporations capable of offering better products, services, knowledge, and support. This would affect business sustainability of SMEs. As a result, SMEs need to offer a better solution to customer's problems, rather than just sell a product.

Sustainability of business as satisfying the needs and desires of providers and recipients (e.g., customer, consumer, society) to practice mutual value co-creation process without decreasing the quality of future value co-creation (Shirahada and Fisk, 2011). Nowadays, business sustainability is a main concern among the business community, since it is paramount in assuring the survival and continuity of business in the future. Hence, practitioners, academics, and government have attracted to sustainability issue which is consideration on economic performance, social performance, and environmental performance (Bansal, 2005; Vucetich and Nelson, 2010; Hult, 2011) perspective. To translate the sustainability opportunities in business, companies need to focus on mentioned three areas leverage to service-based value. Since much of the world has evolved, the ways businesses are managed have also evolved accordingly. Thus, simply producing and selling a good product is not enough to secure the future market share and growth, in order to become a wealthy company. Due to resource constraints, SMEs have very limited options to compete with the more well-established companies and offer new product variety to the existing market in order to draw in new customers. Despite many theories and concepts highlighted in the literature, it seems that the issue of business sustainability can be championed by the concept of servitisation, including a

well-being solution, especially among the SMEs in developing countries such as Malaysia.

With servitisation, SMEs will be able to offer a solution to customers in fulfilling their needs and managing their problems. In this case, servitisation allows SMEs to create added-value of the product by adding services that will improve customers' satisfaction and experience when dealing with the product. As such, the profit, benefit, and sustainability of business does not come from the product sold only to the customers, but through the process of ownership of the product and the support provided by the SMEs in assuring the effective use of the product. This implies that servitisation and social well-being thinking can provide a service-based solution to improve the quality of life of the customer, which is truly important than just selling a product off the shelves.

As mentioned earlier, SMEs have limited resources and capabilities to compete with the well-established companies and multi-national corporations. Due to this, as a start the SMEs should collaborate or perform partnerships with other parties, such as the local government, in order to add value to the products they offer. Therefore, for the purpose of this study, the focus was on a water treatment business, as this industry provides a commodity that is a basic necessity for the Malaysian population. Through a case study, this demonstrates the nature of a water treatment company in the Northern region of Malaysia and the potential practices of servitisation and well-being solution to increase the benefits to customers and the community, as well as sustaining the SMEs.

## **2 Problem statement**

Air, soil, and water are the natural elements on Earth currently threatened by pollution (Nriagu and Pacyna, 1988). With all sorts of contamination, these elements can no longer be consumed without processing. As a result, these elements that used to be free for all are now becoming part of the cost of living. Since water is so important to life, it "should be given greater prominence in both research and teaching" [Chaplin, (2001), p.58]. In addition, water always changes in terms of availability, quantity, and quality due to population growth, climate change, land use, and global poverty, which makes water sustainability as the main issue (Schnoor, 2010). Water sustainability can be defined as a "continual supply of clean water for human uses and for other living things" [Schnoor, (2010), p.1]. Sustainability of water can lead to sustainable social and economic environments. This implies that water is everybody's business (Cosgrove and Rijsberman, 2014), and not the sole responsibility of any one party. Therefore, sustainable water management is critically needed to secure water quality for all (Rao and Mamatha, 2004). Despite some limitations imposed by the authorities on water governance, all parties should work together to assure a viable water service for all.

Table 1 shows all possible problems (or challenges) in water management that need to be faced by SMEs in water treatment industry. This table suggests that water management problems are not a simple issue. These problems are faced by many countries, where sources of problem encompass from natural causes to human decisions. For this reason, this paper proposes an effective water management and well-being solution system that should be developed for servitising water management among Malaysian SMEs.

**Table 1** Problems and challenges in water management

<i>No.</i>	<i>Problems and challenges</i>	<i>Country of study</i>	<i>Source</i>
1	<ul style="list-style-type: none"> <li>• Resource distribution and use</li> <li>• A catchment approach</li> <li>• Ecosystem services</li> <li>• Pollution and water quality</li> <li>• Land use management</li> <li>• Public and stakeholder participation</li> <li>• Behavioral change and water metering</li> <li>• Energy use and carbon footprints</li> <li>• An international perspective and virtual water</li> </ul>	UK	Batterbee et al. (2012)
	<ul style="list-style-type: none"> <li>• Adapting to future pressures</li> </ul>	Pakistan	Nadeem (2010)
2	<ul style="list-style-type: none"> <li>• Surface water structure</li> <li>• Ground water structure</li> <li>• Climate change</li> <li>• Water entitlements</li> <li>• Water institutions and policy</li> </ul>		
3	<ul style="list-style-type: none"> <li>• Intense urbanisation</li> <li>• Water stress and scarcity</li> <li>• Poor infrastructure</li> <li>• Global changes</li> <li>• Lack of action</li> </ul>	Brazil	Tundisi (2008)
4	<ul style="list-style-type: none"> <li>• Physical (land)</li> <li>• Water quality</li> <li>• Water pricing</li> <li>• Irrigation system operation</li> <li>• Organisational</li> </ul>	Turkey	Cakmak et al. (2007)
5	<ul style="list-style-type: none"> <li>• Land reclamations and flooding</li> <li>• Water board taxes</li> <li>• Water quality</li> <li>• Acidification and desiccation</li> <li>• Water board expenditures</li> </ul>	Netherlands	Van Steen and Pellenbarg (2004)
6	<ul style="list-style-type: none"> <li>• Climate change</li> <li>• Inadequate rainfall</li> <li>• Limited physical resources</li> <li>• Rapid population growth</li> <li>• Stagnant economies</li> </ul>	South Africa	Molobela and Sinha (2011)
7	<ul style="list-style-type: none"> <li>• Water scarcity</li> </ul>	Middle-East	Wessels (2009)

As shown in Table 1, the challenges relating to water management are wide-ranging from the geological perspective (e.g., ground water structure) to the policy perspective (e.g., water board taxes), to the infrastructure perspective (e.g., irrigation system operation), and all the way to the global perspective (e.g., carbon footprints). Due to these challenges, SMEs have to understand how water treatment can be done and must take into consideration all possible challenges in providing sufficiently acceptable water treatment service. For instance, Singapore has a very critical problem with water supply, in which they have treated this problem as a national security issue. They successfully managed the water by creating a balance between

- 1 water quantity and quality considerations
- 2 water supply and demand considerations
- 3 public and private sector participation
- 4 efficiency and equity considerations
- 5 strategic national interest and economic efficiency
- 6 strengthening internal capacities and reliance on external sources (Tortajada, 2006).

In the context of adapting servitisation and confirming the well-being solution in water treatment service, the SME water service provider should make corporate collaboration with appropriate internal and external players in the SMEs' supply-chain. For this reason, this paper recommends the use of servitisation concept from the corporate collaboration view, which is to provide a broad image that enhances beneficial relationships amongst service entities, recipient entities, business partner entities, and the government, thereby co-creating knowledge and making service-based well-being solutions for the consumer, society, and economy. In summary, water treatment service can be a viable and sustainable business potential for SMEs. However, there are various challenges that need to be addressed. As the first step in understanding how SMEs can provide a solution to social well-being via the water treatment service, this paper shall identify potential scenarios for the future of SMEs consisting of the needs of mutual corporate collaboration for service encapsulation, and from ecosystem oriented to social welfare value creation. This research can potentially help to overcome the managerial challenges of a company and enable it to succeed in the global commercial market by ensuring service oriented social well-being solutions.

For the purpose of this research, the study was conducted in the state of Kedah, Malaysia, since a previous study in Kubang Pasu and Padang Terap districts in Kedah found that this state is facing a serious water deficiency for decades with more than 50% non-revenue water, mainly from breakage, theft, and seepage of water (Toriman, et al., 2009). Moreover, water production and distribution, and treatment plants used to be privatised in Kedah in 2005 (Lee, 2007), suggesting a potential business opportunity for SMEs. This set up is relevant because water resources and services including water supply, availability, and future projection are the main issues affecting Malaysia (Toriman, et al., 2009). The lack of strategic policy, capital, business permit, advanced technology, lack of skilled workers, knowledge, and expertise can be among the potential challenges to SMEs in Malaysia (Saleh and Ndubisi, 2006). With these challenges, SMEs' roles and its business sustainability with view of servitisation, including

service-based social well-being solution thinking, is a relevant topic to be studied in Malaysia.

### **3 Literature review on corporate collaboration and its practice in business**

#### *3.1 Corporate collaboration view*

Interest in corporate collaboration has increased in recent years. The rapid change of business trends due to economic and demographic adjustments, technological change (Thomson and Perry, 2006), rising customer demands, and increased pressures of globalisation, are influencing organisations to collaborate. With the aim of creating and sustaining competitive advantages of an organisation, collaboration is an effective mechanism (Bititci et al., 2003) as well as a global movement. Its importance is realised by the fact that some of the world's largest companies are involved in corporate collaboration (Sheth and Parvatiyar, 1992), e.g., General Motors, Siemens, IBM, Ford, Boeing, GE, Xerox, and Toyota and they met their respective goals by mutual cooperation of collaborating partners (Belal, 2015). Corporate collaboration also led to the emergence of several new terms and labels, for example, joint venture, R&D consortia, cross license, supply purchasing, franchising, business alliance, and so on (Parkhe, 1991; Belal, 2015). However, from the business standpoint, Sheth and Parvatiyar (1992, p.72) defined that corporate collaboration in business is an ongoing and recognised business relationship between two or more independent organisations to gain a mutual goal (Belal, 2015).

In the current global business environment, manufacturing-based firms have realised that in order to generate their business on the basis of service-based value creation, this value is not just for the customer alone, but also encompassing a greater view, such as the society, since social welfare is becoming the core to business sustainability. With this vision in mind, for the firm, knowledge is an important resource (Grant, 1996). Collaboration, as a source for organisational learning, motivates firms to acquire knowledge (Grant, 1996) and resources from other partners. In other words, "collaboration with companies in different industries or organisations would lead to improvements in the organisational knowledge creation process" [Belal et al., (2013a), p.227]. Therefore, transforming the company's business goal from a product-based to service-based well-being value requires corporate collaboration.

It has been indicated that two or more independent or individual organisations make the collaboration as an emerging joint purpose (Todeva and Knoke, 2005) that acquires knowledge from other associates, where it is better to share resources (Conner and Prahalad, 1996) and strengths. Here, this paper defines resources as all hard and soft strong points of an organisation that become as source to continuous knowledge creation processes, since collaboration requires necessary skills, technologies, finance, knowledge, experience, markets, and so on. It varies to firm's specific characteristics and multiple environmental factors (Todeva and Knoke, 2005). Therefore, the required resources could be obtained from collaboration with individual departments of an enterprise, like supply chains, business process outsourcing, R&D sectors, and so on, including different industries (Belal, 2015).



However, to become a service-oriented value provider for social well-being solution, it is a difficult mission for a company because it needs continuous a service-based value-producing business platform (Belal et al., 2014). They have already been designed using only a product-based and sales-based business platform, but now aspires to adopt a service-based platform. Thus, their tasks are to understand recipient's value, as the recipients are the most significant resource of a value co-producer or a co-developer (Hunt and Morgan, 1996; Prahalad and Ramaswamy, 2004; Uchihira et al., 2007; Neely, 2007). Then, they should ensure value bundles of well-being solutions for individual recipients or customers, as well as the society as a whole. Therefore, this is a "different way of thinking" [Belal et al., (2014), p.24] and the organisation would realise that it needs additional resources. Collaboration with different entities is an effective method to gather additional resources, thereby attaining knowledge creation processes (Belal et al., 2013a; Belal, 2015) and achieving a service-based business platform for offering well-being solutions.

### 3.2 *Collaborative practice in business*

In order to generate new ideas, a company may employ a collaborative strategy (Grant and Baden-Fuller, 2004). New ideas are continually being created in relation to new services in order to bring new consumer-centered offerings in the market and innovate the business. To gain these advantages, a number of global or domestic companies have been involved with collaboration activities. For example, Kodak with Apple, AOL, Cisco, Yahoo!, and AT&T (Grant and Baden-Fuller, 2004), Uniqlo and Toray (Belal et al., 2012; Belal, 2015), Nike and Apple (Belal et al., 2013c), and Grameen and Telenor (Malaviya et al., 2004) have collaborated for generating new customer required services and social issue-related solutions. Additionally, some companies have also been practiced collaboration with consumers for gathering their successful experiences (Sveiby, 1997) through an endless process of knowledge co-creation for delivering consumer's desired service as a solution. Since consumers experience has been a pioneer to the customer's holistic perception of value (Lemke et al., 2003). For example, Toyota Motor Corporation (Liker and Morgan, 2006) delivering higher value through an innovative product (i.e., Hybrid Cars), Samsung Electronics Co., Ltd.'s (Moon et al., 2011) SE Gumi branch has organised the 'reinventing the wheel', mechanism to develop new explicit or tacit knowledge through supporting knowledge sharing between the company and the user, by utilising 'brainstorming hours' (Belal et al., 2013b).

In this section, this paper shall discuss the Nike and Apple, and Grameen Bank and Telenor collaborations. The Nike and Apple collaboration illustrates how manufacturing-based firms moved toward a service-oriented value chain viewpoint by sharing their competencies (Belal, 2015). Nike analysed the market data and understood that user demands are not only for running shoes, as they want more service. They require a personal trainer as well as a fun environment for performing the exercise. Hence, innovation of services, as per fulfilling the user requirements, is urgent. The management discovered an idea that if they can offer music and sports together with other necessary services associated with the new product, then it may create value for market (Belal, 2015). Therefore, the company decided to build the Nike+ (NikePlus) platform (Ramaswamy, 2008). To translate this new project, Nike recognised that more resources, like digital music technology, know-how, and experience should add to Nike's competencies. Then in 2006, Nike Inc. made a partnership with Apple Inc., and the

'Nike+iPod' name emerged with the campaign slogan of 'tune your run' (Apple-Press Info, 2006). This move was made since the electronic equipment, players, and digital music are available with Apple and both organisations' top management wish to meet same goal, i.e., building services as a solution that would enable the user to enjoy new experiences full of innovation and design, as well as making an effective change in the way people perceive and do sports (Belal et al., 2013c; Belal, 2015).

Apple shared its electronic equipment, players, digital music, and experience with Nike's advanced sports technology, and the design of running shoes as well as management skills are also included. All parties' resources were pooled to form a value co-creation process that resulted in a 'Nike+iPod system', which was finally manufactured as 'Nike+iPod sport kit' – a novel solution according to market desired services (Belal, 2015). A sensor and receiver were also included with the Apple wireless device system. The wireless sensor communicates with the receiver and works exclusively with Nike + shoes, while the iPod Nano provides real-time feedback about individual performance during training (Belal et al., 2012). This kind of offering as a service is linking global consumers, and sharing knowledge and experience collectively or individually (Belal, 2015).

By innovating this service as a solution, Nike has changed its business images to the market from only goods-oriented to services-oriented view. In the past, the product was the end-point of the consumer experience, and now it is the starting point, and it serves continuous value to customers (Belal et al., 2012; Belal, 2015).

Meanwhile, the Grameen and Telenor case proves that collaboration is a necessity for extending business line-up as a solution of social concerns. Telenor Corporation faced challenges in its home markets in 1990, then it aimed to develop its business in emerging growth markets. After studying about Bangladesh and its telecommunication market, Telenor's CEO decided to run its telecommunication business in Bangladesh according to future perspectives by the method of partnership with a local significant agent, the Grameen Group, which had an outstanding reputation (Belal, 2015). The partnership led to two separate service products being shaped. The first was 'GrameenPhone', and the second was 'Palliphone' (Malaviya et al., 2004).

In this collaborative project, Grameen shared its social well-being solution-oriented brand name value with Telenor, which formed a unique resource for Telenor. This brand name value had influenced the government so that Telenor could do business in Bangladesh (Belal, 2015). Dr. Yunus, with his global face value, knowledge, and decision-making skills, became an extra asset in this partnership that signified him as a perfect and an ideal partner. His image also helped to establish trust with the Bangladeshi government for regulatory support, and potential customers in both urban and rural areas of the country.

To achieve long-term corporate sustainability for the telecommunication service sector in Bangladesh, designing an excellent infrastructure of the telecommunication network system by Telenor was needed. In addition, Telenor needed to produce human resource well versed in both in technology and service-based skills, and to build service booths. Therefore, Telenor adopted advanced technology and developed a fiber-optic network in the Bangladeshi market, and thus all integrated knowledge and resources from partners became a common value creation agent (GrameenPhone and PalliPhone) that performed as a powerful driver to develop the telecommunications platform to offer a well-being solution (Belal, 2015). The GrameenPhone and PalliPhone had influenced

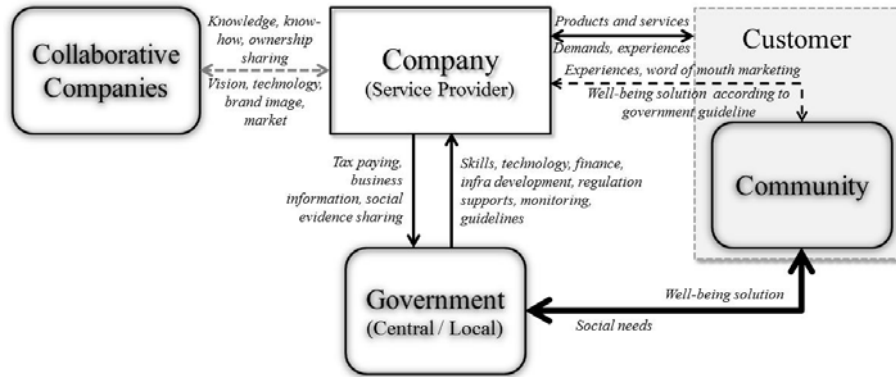
social and economic changes (e.g., SME, corporate work flexibility, communication elasticity, woman empowerment, education rate increase, unemployment rate decrease, and many more) in Bangladesh.

Thus from these cases, it can be summarised that a traditional company must adopt a new paradigm to attain sustainability in the market through collaboration; thereby it can restructure its business platform as a consumer and social service solution provider.

#### 4 Community collaboration model of service-based well-being solution and business sustainability

Sustaining in the current trend of the global market, a product-based company needs to signify itself as a service-oriented value provider (Belal, 2015). Consequently, it should consider facilitating this adjustment with society as well as local communities for translating social needs as a well-being solution. The ‘community relationship model’, with the aim of attaining social well-fare solution and business sustainability (shown in Figure 1), is designed by mutual collaboration with service providing companies, the government, different collaborative industries, and the customer, including the community. Generally, in developing an economy, the typical company’s main intention is to increase revenue and sustain itself within a competitive market by manufacturing and offering a quality product for customers. Nonetheless, this model shows the way of transcending that typical traditional philosophy and suggesting new ways of thinking that would offer not only furnished products to its customers, but also serves the community with a well-being solution.

Figure 1 Community relationship model for social well-being outcomes



It is unlikely that the company on its own would directly connect with the community in the effort of addressing actual community issues by offering its well-being solution. This indeed is a difficult task, so in general the government is the key player responsible for this. Additionally, if a company wants to serve the society or community, it should follow the regular procedure as established by the local and federal governments, which exists in the form of regulations and protocols. Therefore, establishing collaboration with the

government is a beneficial and easy way to connect with communities. In so doing, the government can share the social individual needs of the community with the company, which in turn can design service as a well-being solution. With the aim of developing the mentioned service, a company may require additional resources, like finance, technology, skills, market, knowledge, experience, etc., which can be gathered from different sources, including other industries and customers as well. The government can also share the additional required resources through regulation support, monitoring, guidelines, infrastructure development, etc.

By collectively gathering the required strengths, the central company would then become capable of producing and delivering customer desired services, including well-being solutions for the community or society that can create customers' desired value, thereby increasing the quality of human life. In the same way, it would also provide benefits to the company as a service provider from the perspective of economic, business expansion, and sustainability in the market. Similarly, the government would become satisfied since its own objectives would have been achieved through this collaboration, and benefit from making collaborative approaches with companies offering well-being solutions to fulfil the needs of the community. Therefore, the government would be able shoulder this responsibility and strengthen its commitment to the society.

## **5 Real life case: Aquabiz Sdn Bhd**

### *5.1 Initial development of Aquabiz Sdn Bhd*

Aquabiz Sdn Bhd is a subsidiary company of Federal Holdings (state development agency) a marketing arm for Federal (state development agency) an agency under the federal government. The company was established in 2011 as a private limited company, focused on profit generation. Due to the nature of the company, Aquabiz operated a training centre with chalets close to a coffee plantation, which is located in Sik district, in Kedah, Malaysia. In addition, the company produces mineral water products, under its own label 'Al Maa', for customers such as school cooperatives, government agencies, and also hundreds of original equipment manufacturer (OEM) companies that used their own labels, such as Bank Simpanan Nasional (BSN), Jeruk Pak Ali, and several other well-known companies. Under its own label, Al Maa, Aquabiz produces mineral water in different container types and sizes, such as cup; 350 ml, 500 ml, 1.5 l, and 5.5 l bottles; and also, a water dispenser.

### *5.2 Competitor and market*

In Kedah, during the time this research was performed, there were four companies that supplied mineral water and one of them was Aquabiz. The company is considered a mineral water production company based in Pendang, Kedah, competing against the label name Eau-Claire as its closest competitor due to the technology acquired by the company. In addition, Spritzer was also perceived to be its main competitor at the national level. Comparing Aquabiz against its competitors, the management of the company claimed that their mineral water price was lower than the competitors.

Nevertheless, Aquabiz had its own customers that supported the company. Its customers came from various organisations, such as government agencies, school cooperatives, retailers with market extending from Kedah to Kuala Lumpur and the southern part of Malaysia. Even though there was a market to cater for in other states, the company was worried it would not generate enough profit because the transportation cost was too expensive. For nearby customers, they could come and purchase in bulk at the facility.

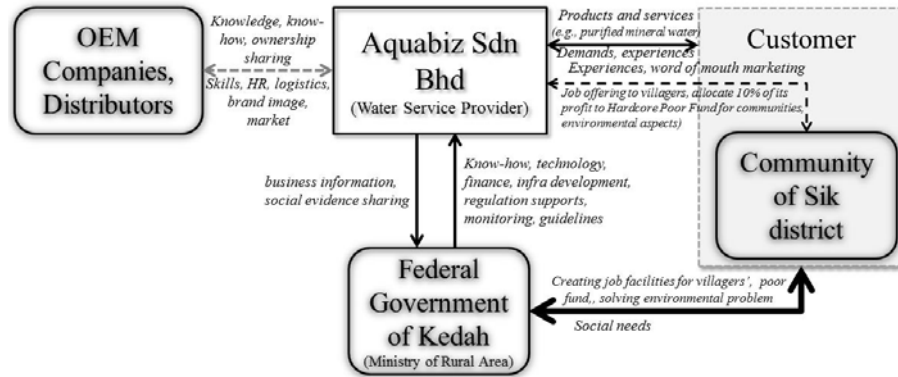
Before 2016, the company had no intention to do aggressive marketing to attract new customers. Promotion was based on word-of-mouth. Sales were normally done at exhibition events and distributed to retailers' premise. As the company started embarking on business expansion in 2016, the management came up with an attractive marketing plan, where every district would be represented by a distributor, especially in Kedah. For other states, distributors would be appointed at every key town or city. These distributors would be offered attractive mineral water prices and other benefits which were not revealed by the manager, Mr. Manan. Previously, orders made by customers were transported by Aquabiz.

### *5.3 Collaboration with local government*

For any new mineral water manufacturing companies to run mineral water businesses, the local government required them to follow regulations set by the government agencies before the manufacturer is given approval and permission to produce mineral water products. These regulations were established to protect consumers and to ensure that the product is safe and healthy. Before the commencement of its operations, Aquabiz had undergone a series of accreditations by three important government agencies, namely the Ministry of Health, Environmental and Geoscience Mineral Department, and Department of Islamic Development Malaysia (JAKIM), as well as the local authority council. Certification from the Ministry of Health was the most important step because without the Ministry certification, the company could not sell its mineral water. By getting the license from the Ministry of Health, the company was given permission to only process mineral water, and no other type of water such as reverse osmosis water was allowed. The role of the Environmental and Geoscience Mineral Department was to ensure the water did not contain dangerous elements, which may become a health hazard to consumers.

After waiting for the approval for almost 12 months, finally, Aquabiz started to run its business in 2011 with 25 staff members including 18 employees in the production department. These production employees were assigned according to three shifts with six employees in each shift. The company was led by the Managing Director and supported by the General Manager, Manager, Account Executive, and Marketing Executive, as well as other administrative workers. Being a subsidiary to Federal Holdings, Aquabiz remained one of the companies that can generate income to Federal, a federal government agency.

**Figure 2** Way to community development by Aquabiz Sdn Bhd



#### 5.4 Collaboration with corporate customers

During its initial stage, Aquabiz focused more on the local market, especially Sik district and the major cities in Kedah such as Alor Setar and Sungai Petani. The reason was to avoid high transportation costs incurred by a third-party transportation company. Being a subsidiary company to a government agency, Aquabiz was not highly motivated to become a money-making company like other mineral water producers. Compared to other mineral water producers, the mineral water products by Aquabiz were relatively lower in price although with high quality. Although Aquabiz did not inform directly to their customers of the product quality, the company indirectly explained the benefits of its mineral water through the label. It had successfully demonstrated the quality assurance of its product through Halal certification received from JAKIM. Hence, this had become a good promotion for their mineral water.

Sometimes, customers who lived nearby would purchase the mineral water directly from the plant, which was initially the main objective of the company of serving nearby customers before targeting for more distant markets. The initial target market of Aquabiz was the education sector, SME business operators, retailers, and also government agencies and government-linked companies. Most of their customers were in the non-profit sector as compared to private companies. It could be seen that although Aquabiz was a business operator, it was more inclined to develop rural communities by providing jobs to villagers and also offering products that non-profit entities were capable of purchasing. Its main focus was still aligned with Federal's main function, which was focusing on developing the rural community in Kedah, but at the same time, it had to generate income.

Recently in 2016, Aquabiz had decided to expand its mineral water distribution to Kuala Lumpur and cities in the northern part of Malaysia. The management had come up with a marketing plan to appoint a distributor in each district as well as the major cities in the Northern states. This attractive plan included discounted prices on the products given to the distributors. Similar to other businesses, Aquabiz had to bid for a government tender in order to produce mineral water for government agencies or Ministries. Through

the bidding, Aquabiz had successfully secured various tenders, for instance, a two-year contract with a government-linked company for supplying mineral water to government agencies. Most government tenders would be awarded mainly based on the price factor. Since Federal was also a federal government agency and BSN was a government-linked company, there existed an indirect mutual understanding that developed in terms of helping each other, since both entities were under government bodies.

### *5.5 Social well-being services as solution*

Since Aquabiz was under Federal Holdings – a group of companies under State Development Agency (Federal), a Federal Government Agency – the company received incentives from the government in terms of machines and equipment from the Ministry of Rural Area, since Federal was under the jurisdiction of the Ministry of Rural Area. In return for the given incentives, Aquabiz was required to allocate 10% of its profit to ‘Tabung Kemiskinan Tegar’ or the hardcore poor fund for poor communities.

The hardcore poor fund was administered by the Aquabiz Company. This Hardcore Poor Fund was allocated directly to 80 selected poor individuals in Sik district since 2012 in the form of annual checks for their subsistence. For instance in 2015, each poor individual received MYR600 (MYR is the Malaysian Ringgit currency) along with groceries supplied during Ramadhan and Eid-ul-Fitr celebration (Eid-ul-Fitr is one of the major Muslim festivals celebrated after completion of fasting during the month of Ramadan). Altogether, Aquabiz allocated MYR 46,084 in 2013, MYR 43,032 in 2014, and MYR 38,288 for 2015. This fund had helped in reducing the burden of high living costs and improving local communities’ quality of life. Although the company was profit oriented, it showed the importance of becoming a socially responsible business entity to society. With this little contribution, the poor communities would be able to improve their livelihood. Another effort undertaken by Aquabiz was to recycle its defect bottles using a simple machine, which was considered as an effort to reduce the bottling costs as well as to promote sustainability. This effort undertaken by the company impacted the social well-being of the local communities because they would be able to benefit through indirect education on sustainability.

### *5.6 Business sustainability as a result*

Since the profit margin of mineral water was small, the company had taken necessary steps to ensure its sustainability. Various steps were undertaken, for example, the recruitment of foreign workers to work in the company and also an effort to reduce unnecessary costs so that the company could sustain in the long run.

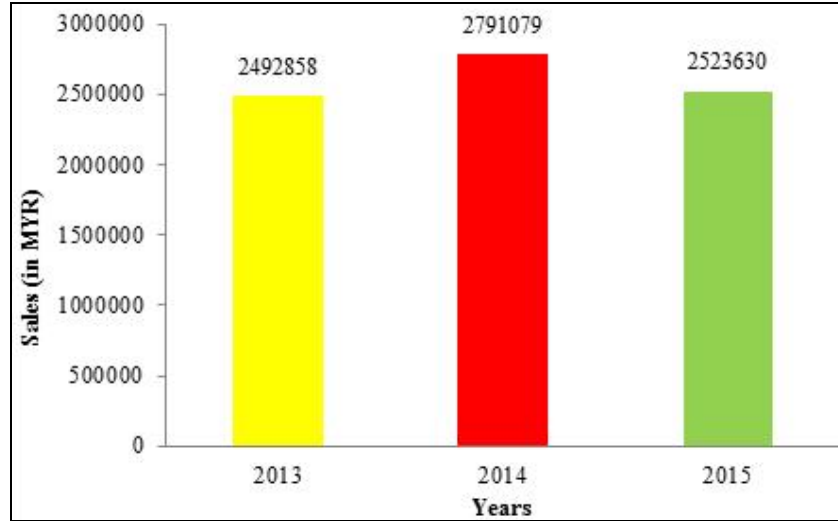
For instance, based on the company’s operations, the running cost is MYR 1 million, which covered building and machines. The boring cost for tube well is MYR 150,000 per well, and currently, Aquabiz has three tube wells. The company’s revenue is RM 200,000 per month with a profit margin of around 10–20%, while the operating cost does not exceed 50%, which include not only salaries, but also the cost of bottling, boxes, caps, and also labels. At present, Aquabiz produces its own 1.5 litre and 3.0 litre bottles, while the 500ml bottles are outsourced from two or three suppliers, with prices of around 17–19 Sen per bottle, even though the company has a machine and mould to produce its own

500 ml bottles. The reason for not producing is that the company fears of breakdown in its production if it manufactures the 500 ml, even though the costing of producing 500 ml bottle in house is only 12 Sen. The mineral water supplied by Aquabiz uses different coloured caps such as dark blue, blue, green, and dark green. Although Aquabiz owned machines to manufacture these bottles, it also adopts an outsourcing strategy to sustain the supply of its mineral water to customers.

The production department has three lines or shifts. Each shift has six production operators and a supervisor. The shift starts from morning and night shift begins from 8 pm until 3 am. These operators are local and foreign workers who are mainly from Bangladesh. The foreign employees work part time and normally during night shifts. Basically, this facility operates almost on a 24-hour basis. There is a qualified technician working in the plant. Recently, the plant appointed a quality assurance/quality control (QA/QC) officer to look into the quality issue. The appointment of the QA/QC officer is very important to sustain the business in the long run, since one of the roles of QA/QC officer is to test the water quality which needs to be certified first. There are three types of tests undertaken, namely the microbe test to ensure no dangerous bacteria such as Salmonella and E-coli exist in the water, the chemical test to find out the mineral content including water PH, and finally the radioactive test to test for radioactivity. All these tests are important to ensure customers' well-being in terms of health and safety.

In terms of plant productivity, it can produce 24,000 bottles of 1.5 and 3.0 litres per day. There are three bottling machines owned by the plant, of which the 1.5 and 3.0 litre bottle machine can produce 3,000 bottles per shift, while the 500 ml bottling machine can produce 8,000 bottles in eight hours. The production capacity of the plant is 1500 cartons daily. For processing the mineral water, the water is pumped out from a 500 ft well, transferred to two large tanks, filtered in a machine with carbon, sand, and manganese, and then stored in three big tanks with UV light to kill any bacteria. The processed water is then transferred to a processing machine. There are three processing machines in the plant, however, only two are used, which are the semi-automated and fully-automated processing machines. These machines automate the process of washing and filling up the bottles, as well as affixing the caps and labels. The difference between the fully-automated and semi-automated machines is that the semi-automated machine requires labels to be affixed manually onto the bottles. Before the mineral water is delivered to the customer, a quality control procedure is undertaken by the company by taking five workers at random to drink the water and report the taste. If the water does not taste normal, then the company would consider the product batch as a defect. Finally, the bottles are put inside boxes and stored in a storage room, ready to be shipped to customers using the company's transportation or the customer's own vehicle. Although Aquabiz is still relatively new in the mineral water business, the company has been able to attain gross sales in millions of Ringgits, as indicated in Figure 3.



**Figure 3** Gross sales of mineral water from 2013 to 2015 (see online version for colours)

*Source:* Financial information of the Aquabiz Company

Based on this chart, the data showed that the company has successfully attained gross sales of MYR 2.4 to MYR 2.7 million, even though the company is considered as a newcomer to the mineral water industry. This highlights the business sustainability of the Aquabiz Company in the mineral water industry.

## 6 Discussion and conclusions

This article introduces the service science research in an SME of a developing economy and presents a model that can show how a typical company can establish beneficial relationships amongst service entities, recipient entities, business partner entities, and government entities for co-creating and delivering service-based well-being solution for all parties. Thereby, the company can transform and signify itself as a service-oriented organisation of society.

The model highlights that how a service provider makes a constructive relationship amongst the government, different industries, and customers that would ensure well-being solution outcomes for community improvement. This paper presented a real-life case named Aquabiz Sdn Bhd. The company is typically a mineral water service provider and considered as an SME. For maintaining its business growth and sustaining in a competitive market, it collaborates with the Federal Government Agency of Kedah, Malaysia in order to better organise and minimise gaps of technological resources as well as financial support in terms of innovating services. In addition, it makes a mutual business relationship with some OEM customers, BSN (a government linked company), and distributors, all of which facilitates each other's business to attain a common goal. This kind of collaboration enables all parties to be more resourceful in finance, knowledge, and know-how as compared with competitors. Under a mutual understanding of all collaborating parties, Aquabiz allocates 10% of its profits to 'Tabung Kemiskinan

Tegar', or the Hardcore Poor Fund, for poor communities. Aquabiz also cares about environmental issues by establishing recycling initiatives and this impacted on the protection of the community's environment. In addition, it provides jobs to the villagers and also offers products that non-profit entities are capable of purchasing with the aim of developing rural communities. These kinds of activities and initiatives have helped Aquabiz to sustain in business and signifies that it is a socially responsible as well as human well-being oriented company, which becomes possible only when establishing mutual relationships with the local government and other entities.

The original value of this model is that, any size of company such as SMEs or high value organisations can put the model into practice in transforming themselves into a service-based social well-being outcome-based company. In previous studies, there were several research models concerning the adaptation of the servitisation strategy in the manufacturing industry, such as general discussion of servitisation (Vandermerwe and Rada, 1988; Neely, 2007; Ren and Gregory, 2007; Baines, et al., 2010), product service system (Baines, et al., 2007), servitisation challenges (Baines, et al., 2009; Martinez, et al., 2010, Weeks, 2010), general method discussion of servitisation (Magnusson and Stratton, 2000; Janthong and Butdee, 2010), design method of product based services (Uchihira et al., 2007), operation strategy in servitisation (Baines, et al., 2009; Weeks and Benade, 2014), and service value system model (Belal, 2015), rather than constructive research model for transitioning SMEs from the viewpoint of service-oriented and social well-being solution outcome.

The service encapsulation in SMEs of a developing economy that was presented in this article is especially critical for services with the lens of co-creation on knowledge in order to ensure service-based well-being solution for the company itself, consumers, the society, and economy. In this research, though the focus was on water service management, there are ample areas to explore in the future regarding this topic, such as investigating well-being solution in healthcare, transportation, energy, food, and so on. The community relationship model presented in this paper shows the ways of creating well-being solutions to successfully overcome social challenges.

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