WHY DOES WASTE SEPARATION AT SOURCE INITIATIVE (SSI) DID NOT FULLY COMMISSION IN MALAYSIA? AN EXPLORATORY PRELIMINARY STUDY

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Abstract

The Separation at Source Initiative (SSI) was launched and became effective in September 2015 under the Solid Waste and Public Cleansing Management Act 2007 (Act 672). Malaysian households were required to participate by implementing waste separation at home, which fell under the classification of waste minimization and production goals. This qualitative research attempted to explore why the Separation at Source Initiative (SSI) did not fully commission in Malaysia. A content analysis approach was conducted to explore the obstacles and challenges of the citizen's participation in the SSI program in Klang Valley, Malaysia. Five individuals participated in this pilot study where data was collected using in-depth interviews. Several open-ended and probing questions were asked to elicit responses and experiences from the participants. Data collected was then analysed using Braun and Clarke's thematic analysis, where units of meaning were identified from the participants' responses. Creation of initial codes and categories were then developed and several themes had emerged from the data analysis process. Findings revealed that lack of enforcement, facilities, awareness and incentives as some of the barriers for participating in the SSI. Suggestions for better participation in SSI were also proposed to the rightful stakeholders in ensuring successful implementation of the program.

Research paper

Keywords: Separation at Source Initiative (SSI); waste minimization; waste management; Solid Waste Management (SWM); Municipal Solid Waste (MSW); Sustainable Development Goals (SDGs)

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Introduction

Malaysia is one of the rising economic powers in Southeast Asia. With a population growth rate of 1.30% in 2020 (DOSM, 2020). The economic and population prosperity will also mean the growing amount of solid waste generation. Solid waste management is a global issue, although many people are not aware of it (Vitorino, 2017). People will only realize that this issue is an international urgency by looking at the environmental contamination as stated by a study by Rahji and Oloruntoba (2009). For instance, in Nigeria, waste management is poorly managed and leads to many disasters such as flooding, soil pollution, air pollution, traffic congestion, and other environmental issues (Agwu, 2012). Furthermore, a developing country like Malaysia faces numerous challenges in managing waste, such as irregular collection services by waste management contractors, illegal dumping, damaged garbage bin, and scavenging activities. Although environmental pollutions are an overwhelming effect of poor waste management, it is also essential to render the crisis by monetizing the value of managing waste management.

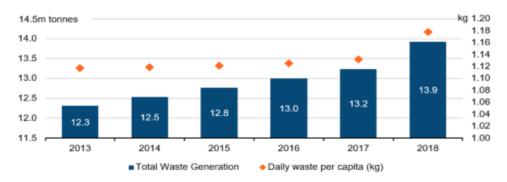


Figure 1. Waste Generation in Malaysia, 2013-2018 (*Source: Khazanah*, 2019, DOSM 2019)

The waste management market size was \$2,080.0 billion in 2019 and is on track to reach up to \$2,339.8 billion by 2027. The Malaysian government allocated more than RM1.2 billion for waste management (DOSM, 2020). It is an immense amount of taxpayer money in waste management. Moreover, given the increase in waste production as the population increase, more allocation needed to be budgeted. To put in percentage, an estimated around 40% of the local council budget allocated to total waste management (Jose, 2019). This massive portion of local council income spending in waste management includes transportation, waste disposal, sewage management and treatment, and landfill.

Moh and Abd Manaf (2014) stated that the waste composition in Malaysia is municipal solid waste or MSW, which consists of 64% of total waste generated, industrial waste 25%, commercial waste 8%, and construction waste 3%. Despite that, the MSW stream contains approximately 40–60% recyclable and retrievable composition, including food waste, paper, plastics, glass, ferrous metal, and aluminum. In addition, plastics are a familiar item disposed of in landfills, and some plastic will stay in the same form for thousands of years. While Malaysia is highly dependent on disposing of waste through landfills rather than incineration, the issue of land scarcity is unattended (Chen et.al., 2019). In general, the recycling or waste separation initiative is the best solution in reducing the amount of waste landed in the landfill.

Furthermore, household waste is the majority of the waste ended in landfills. However, many Malaysian households still did not participate in the

self-initiative waste separation (Nejati et al., 2011; Moh, 2016). Despite numerous efforts by the government with the recycling campaign promoting awareness, the issue is uncertain and unresolved. As a result, many households choose not to recycle, and it is easier for them to put all the waste, including the recyclable waste mix, in one plastic bag or garbage (Razali et.al, 2020). This lack of commitment by households causes Malaysia's recycling rate to be relatively low and far behind the developed nation. In contrast, their waste separation program is efficient, and the household has the best behavior in separating waste at the source.

The sustainable development goals (SDGs)

1st January 2016 marks the official date adopted by all 193-world leaders in the United Nations who agreed with the 17 Sustainable Development Goals (SDGs) derived from the 2030 Agenda for Sustainable Development. The main essence of SDGs is to end poverty, gender equality, promote good health and essential human well-being, be a responsible country for consumption and production, and other necessary sustainable issues. Malaysia is one of the developing countries that is committed to achieving shared goals. Waste management is under the 11 and 12 SDGs target: sustainable cities and communities and responsible consumption and production. However, according to (Zoe, 2016; Yakubu et al., 2022) SWM is the essential key towards all 17 SDG, as shown in figure 2.

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Figure 2. Sustainable Development Goals from the waste management perspective. (*Source: Wasteaid.org* (2016))

According to Economic Planning Unit (EPU), Malaysia incorporate the SDG align with the 11th Malaysian Plan from 2016-2020, the 12th Malaysia Plan 2021-2025, and the 13th Malaysia Plan 2026-2030. To ensure the

involvement and support by relevant mister and all the policy members, the National SDG Council chaired by Malaysia Prime Minister himself. To achieve sustainable goals, Malaysians have to take SSI seriously, be more responsible for reducing waste, and focus on environmental protection (Razali et.al, 2020). Furthermore, in particular, household waste is the primary source of MSW, which is around 60% (KPKT, 2019). Therefore, moving forward, the Malaysian household played a significant role in ensuring the achievement of Malaysia SDGs by practicing SSI.

Despite Malaysia being on the brink of moving towards a developed country and already pledged on SDGs by the United Nations, waste separation practices in Malaysia are not getting enough attention. The previous study indicates many discrepancies between the reported national recycling rate and the actual national recycling rate (Moh, 2016). Despite, the study from Moh in 2016 concluded that solid waste management is the most significant environmental issue in Malaysia government still did not manage to promote substantial behavioral change in households' separation at source initiative. The increasing number can see the lack of household participation of recyclable MSW landed in landfills each year, nearly 40% of the total MSW (SwCorp, 2020).

Malaysian, in general, generated around 38,142 tonnes of waste per day, that figure increasing from merely 19 000 tonnes of waste a day in 2005 (SwCorp, 2018). The amount of waste will be increasing each year as the population increase. In addition to that, scared space for landfills and rising costs of disposal, there is an urgent need to overcome waste management issues and reduce the impact on the environment. The only reasonable action

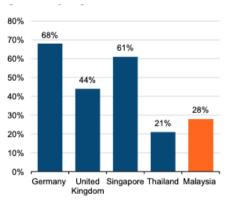
towards reducing waste or MSW landed in landfills is implementing separation waste at the source and promoting recycling (David et.al., 2019; Dana et al., 2022). Nonetheless, further study by (Moh, 2017) also indicates that the most critical challenge in practicing waste separation at source is the public attitude towards making source separation and recycling a habit. Since 1st September 2015 Malaysian government has made an official announcement to implement a mandatory waste separation program for households in Kuala Lumpur to introduce national waste separation at source initiative (SwCorp, 2016). A gap of one year grace period to accommodate the awareness and campaign of this esteemed program seem not enough.

Moreover, in 2018, Act 672 has provisions to fine households that fail to separate their waste, with the fine for the first offense at RM50 for landed property and RM100 for premises like shop lots. Yet this enforcement has never been implemented. Despite numerous campaigns and government enforcement, the Separation at Source Initiative (SSI) seems to be a failed program by the government. According to SwCorp data, in 2019, only 10% of households practice waste separation at sources in high-rise buildings. Based on the household feedback and data collected by SwCorp, there are various issues on why the SSI program is falling behind. Some of the factors are the attitude of the Malaysian household, lack of awareness, not enough recycling facilities, low campaign, and lenient or little to no enforcement (SwCorp, 2019).

While Malaysia's recycling rate has been improving each year, it is considered relatively low compared to other developed countries, as shown in Figure 3, which is only 28% in 2019 compared to other developed nations such as Germany 68%. Furthermore, Malaysia's recycling rate data might not

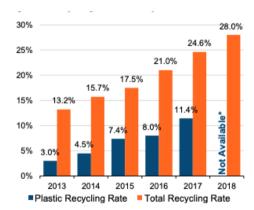
fully represent the whole country. Only eight states in Malaysia, including the federal territories, adopted the Solid Waste and Public Cleansing Management Act (2007) (Act 672). Only Perlis, Kedah, Kuala Lumpur, Putrajaya, Pahang, Negeri Sembilan, Melaka and Johor are categorized in this act for implementation of SSI.

As for other states, the recycling rate is far lower. This data discrepancy is also questionable as many local authorities and government did not share their Many households in Malaysia are unwilling to participate (Raza et.al., 2020). Thus, it is interesting to study the link between household behavior and waste separation contributing to the factors that will further enhance the national recycling rate and help to understand the household behavior towards SSI. The issues also address a gap in improving Malaysia's recycling rate and further motivate the SSI implementation and enforcement. Hence, this research aims to find out and explore why the SSI program did not fully commission in Malaysia.



Source: OECD (2019), MEWR (2018), Vassanadumrongdee et al. (2018)

*Note: Due to lack of data availability, figure for Thailand is only available for 2016.



Source: SWCorp Malaysia (2018), Chu (2019) & author's calculations

*Note: Plastic Recycling Rate in 2018 is not available due to a lack of data.

Figure 3. Recycling rate in selected countries and Malaysian recycling rate (*Source: Khazanah, 2019*)

Literature Review

The best solution for waste management is through the reduction of waste that will eventually end up in the landfill. In conjunction with that, the best way to reduce waste is through recycling or waste separation at the source (Chung & Poon, 1999). There are many definitions of waste separation behavior depending on the scholar's interpretation. According to Jank et al. (2015) waste separation is the altering of waste and segregation of waste products to recyclable and non-recyclable with the various standard that will provide easiness in the disposal of waste in landfills, empowered recycling activities and eventually reduce pollution and provide environmental preservation. Areeprasert et.al. (2017) on the other hand, defines waste separation as the waste separation method of household waste and transit of waste from the collection center with the filtered waste for selective recovery and incineration.

Based on the previous research, we defined and specify the limitation of waste separation as the process of segregation at the household level, in which the household separate their waste product according to the recyclable material with the intention and performing the specific behavior of discriminating the waste to the recyclable and non-recyclable plastic bag. The performing of this stage eventually ensures the waste then continues to be separated in a specific dustbin that will ensure the recyclable waste will not end up in the landfill.

Structural Analysis of Waste Separation Behavior

The recent research study of planned behavior mostly focuses on the quantitative study based on predetermined factors. However, the qualitative

perspective provides in-depth knowledge and personal experience into account on waste separation. Furthermore, until the date of this study, there are no recent studies specifically for the qualitative study of waste management in Malaysia. Despite that, waste separation at source initiative (SSI) becoming unpopular and unattended by the household. Thus, this study structure to address this problem focuses on the behavior of households in participating in the SSI program.

A recent study by Babazadeh et.al. (2018) shows four possible themes for the barrier in complying with the waste separation program in Iran namely, problem in waste management collection, lack of responsibility among the citizens, insufficient awareness among the citizens, and expectation of receiving incentives. A further study made by Chen et.al. (2019) shows a broader selection of themes and factors which are individual psychological factors and situational category factors. Individual psychology has different themes such as value orientation, cognition of separation, regulatory focus, comfort preferences. While situational factors have product and facilities, trustworthiness for links, and group norms as their themes. In this study, the theme is developed based on a previous study and a new theme based on situational factors that are closely related to the Malaysian government's current approach in introducing waste separation initiative and what the household understand about the program.

Jacobsen et. al. (2022) had provided relevant empirical evidences from previous studies that showed the main reasons that impedes consumers/citizens to engage in proper waste separation or recycling. They had concluded that the avoidance and the behavior of recycling could be driven by the factors of motivation, ability and opportunity.

In light of this, we have systematically explored other possibilities of emerging new themes which can be included as a new factor based on the identification of possible consistent behavior or actual behavior performed according to the interviews and participants' data. However, the lack of participants may limit the data collected thus saturation of data might not be achieved. In this study, we refined the structure of waste separation behavior from the perspective of Malaysian households specifically in Kuala Lumpur and Selangor.

Research Method

This study using qualitative method with a conventional content analysis approach, was conducted to explore the obstacles and challenges of the citizen's participation in the SSI program in Klang Valley, Malaysia. The participants were selected from those living in the city through a purposeful sampling method with maximum variation in age, gender, job, level of education, and residency (Rahman et al., 2021, 2022). This means that we tried to invite the individuals from different age groups, types of jobs, levels of education, places in Table 1. The study area is in Klang Valley, Malaysia. Five individuals participated in the in-depth interviews. After coordination, interviews were conducted at a time and place preferred by the participants. In this case, the interviews were conducted via Google Meet.

Participant no.	Gender	Age	Workplace	Marital status	Level of Education	Residency
1	Female	44	Housewife	Married	Master	Shah Alam
2	Female	42	Housewife	Married	Diploma	Ampang
3	Female	29	Supervisor	Married	Degree	Kepong
4	Female	29	Accountant	Married	Master	Titiwangsa
5	Male	30	Supervisor	Married	Degree	Shah Alam

Table 1. Participants and Sampling Procedures

Data Collection

The main research question in the present study was: 1. What are the obstacles and challenges in implementing the Source Separation Initiative (SSI) at Klang Valley, Malaysia? 2. How can Malaysian households actively participate in the SSI? Individually semi-structured in-depth interviews were conducted to collect the data. Each interview was initiated with an openended and then, the probing questions were asked according to the participants' answers. As suggested by Guest et al., the interview questions were structured to facilitate asking multiple participants the same questions.

The following are some of the probing questions:

- 1. What are the obstacles and challenges in implementing the Source Separation Initiative (SSI) at Klang Valley, Malaysia?
- 2. How can Malaysian households actively participate in the SSI?

As a result, the interviews were mostly conducted in the participants' The time and place of the interviews was determined based on the participants' preferences (Google Meet) Each participant was interviewed once, for

about 15–25 min. Google Meet Recording was used to record all the conversations during the interviews.

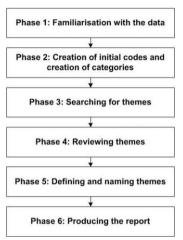


Table 2. Thematic Analysis phases (adapted from Braun and Clarke, 2006)

Data Analysis

Data analysis was conducted after each interview was completed. The researchers in qualitative studies need to be involved in the process of data analysis throughout the study (Salamzadeh et al., 2021, 2022). Qualitative Thematic analysis phases adapted from Braun and Clarke (2006) was applied to analyze the data by phases from Phase 1, familiarisation with the data followed by phase 2, creation of initial codes and creation of categories, phase 3, searching for themes, phase 4 reviewing themes, phase 5 defining and naming themes and the last phase producing the report based on which, all the interviews were transcribed verbatim and were read several times.

The analysis was initiated by identifying the units of meaning, which were extracted from the statements. The codes were inductively generated, and the extracted codes were identified as categories based on the differences and similarities. Data analysis was continued until data saturation when no new theme or idea emerged from the data.

Before conducting the interviews, the purpose of the study was explained and described to the participants and all informants were informed on the consent and purpose of the interviews.

Results and Findings

As a result, from data analysis, five themes appeared as the main barriers and challenges for implementing the SSI in Klang Valley areas, including "lack of enforcement by the local authority"," not enough facilities"," create more awareness"," encourage more incentives" and "suggestion for future "(Table 3). The details of each theme are presented comprehensively in the following states.

Table 3. Identified barriers for complying with the Separation at Source Initiative program (n = 5)

Themes	Subcategories			
Lack of enforcement by the	Lack of enforcement acts, an improvement on facilities			
local authority	Not consistency to practice			
-	 Was not implemented as per the "Act" governing SSI 			
	 Have rules but was not being enforced 			
Not enough facilities	 Lack of facilities leads to doing not separating the waste. 			
_	No separate bins			
	 Recycle centers were too far from residency 			
Create More Awareness	 Poor announcement and insufficient amount educational 			
	campaign and very inconsistent.			
	 Low public knowledge and encouragement 			
Encourage More Incentives	 Proof that if local municipal council generate more in- 			
_	centive			
	more communities will participate in SSI			
Suggestion for future	Government to create more media campaigns to encour-			
	age			
	SSI participation for better implementation			
	 Suggestion to enhance the implementation of SSI 			

Lack of enforcement by the local authority

The theme of "Lack of enforcement by local authority" is explained in the following subcategories.

Lack of enforcement

According to the informants, the municipality authorities were weak in enforcing the enforcement acts of SSI and do not have standard acts, different states have different governing acts, so some citizens were not taking it seriously and which have resulted in the unsuccessful implementation plan. One of the informants (I1) "Unlike in Selangor, initially we used to have rules and law, but it was not being enforced. So, we can say the enforcement was not successful".

Another informant (I5) explained "In my opinion this initiative is good, it just that different states have different sets of law when it comes to the law on practicing SSI. Only the states that have such acts will do so. And it was not standardized.

Not enough facilities

The informants explained that there were not enough bins as one of the obstacles against the separation of wet/dry wastes, and the waste that can be recycled. As to separate the waste according to the types of waste like there were no bins labeled for plastics or papers. Especially to those who live in apartments and condominiums, many of the participants believed that the waste separation bins are not available enough everywhere. One of the informants explained (I3) "At our common areas, yes, they do provide us with the facilities but only at certain areas but not every floor. So, we have to take

it ourselves and place it in the bins" The recycling center was also far from their residents. In this regard, one of the informants stated that (I5) "it's hard for us to have such initiative and when it comes to facilities the recycle center is so scarce and it's too far from our area. Like in Shah Alam only center at Seksyen 2. So, it is very troublesome for us to practice SSI".

Create more awareness

Insufficient awareness among the citizens was also another theme extracted from the citizens' explanations on the barriers to implementing SSI was a lack of awareness of the implementation of plans among citizens and thus, their low level of involvement in the program. The informants believed that if the municipality had performed the necessary educational activities and informed people regarding the SSI there would be more will participate in the SSI. One of the informants (I1) believes it can be done if most people are aware "Yes, they did but. just doing the normal way like put all the rubbish together. I guess maybe because it isn't our culture as compared to other countries like Japan or Scandinavian countries as the law is so strict that they don't simply throw the rubbish anywhere they like. They will do the source separation accordingly".

Encourage More Incentives

According to this theme, some of the citizens expected to receive an incentive when they participated in SSI. The participants announced that they do participate in the SSI due to the incentive mechanisms initiated by the local municipal council. They believed that the municipality that provide them with something as an incentive for their participation in separating the waste. In

this regard, one of the participants explained (I2) "Actually, when the recycle center by MPAJ is in operation, the SSI activities were quite successful, most of my neighbors look forward to sending the recycle material to the center as MPAJ took the initiatives by encouraging our neighborhood to recycle the waste and can redeem the wastes with dried foods like bee hoon, rice, soya sauce, and others". Another informant also supported this initiative (I4) "for example if you practice SSI, we will incentivize by getting points and will be added on into some things like a loyalty card and you can redeem it"

Suggestion for future

Most of the informants believed that if the municipality and government had carried out sufficient educational /promotional activities and lots more notifications for the SSI there will be more to participate and practice SSI. In this regard, the informant (I3) said "As you may be aware, in general, Malaysian don't read. Why not government create awareness by creating a video on the repercussion if Malaysian do not practice SSI. Instead of spending too much money to do the cleaning why not create awareness on TV or Radio for Malaysians to practice SSI".

Based on the participants' explanations, the lack of such educational and persuasive programs has caused less engagement of the citizens in the SSI as well as less institutionalization of the source separation behavior at home among the residents, otherwise, if there were big scale awareness campaign to encourage the practice of SSI, they believed more will participate.

Discussion

The findings of the current study indicated that several factors may constrain the reasons for the lack of participation of citizens in the SSI plan in Klang Valley. Based on this study, and based on the viewpoints of participants, the most important barriers for participating in the SSI were problems in the enforcement, facilities, awareness and lack of incentives. These findings were quite similar to the past findings by Jacobsen et.al. (2022), which had concluded that lack of knowledge and understanding as the reason why consumers do not make an effort to avoid and recycle their wastes. When consumers do not understand the characteristics, functions, and consequences of different packaging materials, or how to sort the wastes correctly, they are not able to engage in the separation at source effectively. It is therefore crucial to understand how to effectively inform and educate consumers/citizens (Lazzarini et al., 2018, Longo et al., 2019). Jacobsen et.al. (2022) had also highlighted that convenience also makes it easier to develop a new habit. Effectiveness of waste sorting systems depends on how convenient it is for consumers to use them. Therefore, having enough and easily accessible facilities for waste management would undeniable be helpful in inculcating the culture of recycling and right behaviour to waste management.

As a limitation of this preliminary study, only one method for data collection was used which was one-to-one interview. There was no other complementary method used to confirm the findings and the sample size was only limited to five informants. To have a mixed approach to triangulate the qualitative findings with quantitative ones may have provided us with a better level of internal validity. Using different methods in data collection could help the team of researchers in checking the reliability and validity of the data.

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Furthermore, more participants from diverse backgrounds and locations will increase the validity and saturation of data possibly creating a more accurate theme.

Conclusion

This research complements existing literature, in identifying the factors that contribute to the lack of citizens' participation in the SSI plan. Based on the findings in this preliminary research, several barriers have led to introducing the citizens' participation in SSI. The findings also indicated that the stakeholders responsible for the plan have not been successful in providing the citizens with infrastructural and cultural conditions and educational initiatives for the source separation of wastes. Thus, to succeed in implementing such programs, the audience must be provided with the infrastructure and introduce the benefits of the program in advance. Considering the expectation of citizens to receive incentives for source separation of waste in this study and the studies conducted in other developing countries. Therefore, before implementing SSI there is a need to increase citizens' awareness and responsibility toward the source separation of wastes through applying various educational programs to create better awareness.

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Razi, H. H. M., Roslly, K. A., Jurimi, S., & Sharkawi, S. 2022. Why does waste Separation at Source Initiative (SSI) did not fully commission in Malaysia?

Hafierul Hafiz began his entrepreneurial career in his college program by selling IT hardware goods. After finishing engineering school, he works as a production engineer for two years. Then, at 25, he resigned to work as a marketing director for a firm that recycles metal and non-metal scrap in Kedah. After six years, in 2017, he established Bumi Hijau Lestari Resources and Bumi Hijau Group of Companies, creating a public cleaning firm. Determined with courage and dedicated to being the best, he developed his small company as a cleaning contractor for Alam Flora Sdn Bhd to become one of the best contractors of Alam Flora Sdn Bhd that maintains road and drainage trash in Putrajaya. As the company flourished, he was also entrusted with a contract for the ground transportation division of Schlumberger, a global oil and gas corporation, thanks to his exceptional leadership and entrepreneurial skills. Additionally, in 2022 he made investments and expanded his company portfolio by opening branches of recycling businesses in Shah Alam and dentistry clinics. In summary, his vast knowledge and real-life experience in recycling, waste separation, and waste management did help in furnishing input to waste separation research studies.

Khairil Adam Roslly. The dot-com boom era of the late 90's really influenced Adam to start exploring the Information & Communication Technology industry. Armed with a degree in Civil Engineering and an MBA, he founded Radmik Solutions in 2004. Today, after almost 20 years of experience and many successes in implementing high profile ICT projects, Radmik Solutions is a firmly established Malaysia Managed Cloud Services Provider, partnering with Tech giants such as Amazon Web Services, Cisco Networks and VMWare Inc to provide Cloud and mission-critical solutions to the Government and SMEs.

Salehhuddin Jurimi. After graduating from mass communication school in 1993, Salehhuddin Jurimi started working for Levi's Malaysia as a marketing services executive, where he oversaw the company's advertising and promotion initiatives. After working for Levi's for three years, he joined Sapura Holdings to advance his career as a Corporate Communications Executive, where he oversees media relations, events management, content creation, and other communications strategies, as well as coordinating and implementing communications output within a company. He started his career in a media company in 1999 when he joined Natseven Sdn Bhd, also known as NTV7, where he oversaw airtime management and TV programme acquisition. He joined ASTRO in 2005 as Assistant Vice President, Malay Channels, Media Sales, where he oversaw creation of branding, marketing plans, and communication strategies for clients. 2010 saw the launch of TV Alhijrah, a new Islamic lifestyle TV channel, and he received an invitation to join the organisation. He only joined TV Alhijrah in 2011, and now he oversees company's initiative to increase revenue through media sales and by selling programme rights to local and regional TV stations. via the global film and television market. At Management & Science

University (MSU), where he was a scholar for the MARA Entrepreneurs Program, he received an MBA. In conclusion, his depth of knowledge and practical expertise in corporate communication, media sales, and marketing media products did contribute to research studies.

Sharizan Sharkawi has extensive experience and exposure in the field of human resource, having spent around 25 years working as a practitioner, consultant and academician in the field of HR and Management. Since joining Universiti Teknologi MARA, Sharizan has been involved with studies related to Human Resources Management, Organizational Behavior, Leadership and Strategic Management. She is currently a teaching staff and is actively involved in research works and supervising post graduate students on the areas mentioned earlier. Before joining the academic line, Sharizan was a HR practitioner working in several local and multinational companies in various industries from plantation, fast moving consumer goods to property development.