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PREFACE

Proceedings of 2nd International Conference on Business, Education, Engineering, Health, Inter-Disciplinary, Management, Social Science & Humanities and Technology 2021 (SITE2021)

It is my pleasure to welcome you to the the 2nd International Conference on Business, Education, Engineering, Health, Inter-Disciplinary, Management, Social Science & Humanities and Technology 2021 (SITE2021). **SITE2021** aims to provide a platform for connecting academic scholars and industry practitioners world-wide to share the research findings from various disciplines and create a space for intellectual discussion, exploration and reflection of key issues that are shaping the world today. This is a great opportunity for delegates to expand knowledge, plan and implement innovative strategies, overcome barriers and move forward with the initiatives that benefit the community. There will be huge opportunities for networking, informed dialogues and collaborations.

Your participation in this conference and submission of research papers is greatly appreciated and on behalf of the Organizing Committee, I wish you all the safety and health and together we must strive to get over with the Covid-19 pandemic challenge as soon as possible. Our research works must endure despite these challenges to continue contributing to the body of knowledge from new research ideas, methods and problem resolutions.

Thank you.

Dr. Safaie Mangir
Conference Chairman

ABSTRACT

The objective of this conference is to provide a platform for scholars, intellectuals and professionals from various academic and industrial disciplines to share the research findings from various disciplines and create a space for intellectual discussion, exploration and reflection of key issues that are shaping the world today. The conference welcomes all authors from related fields of research to submit and/or present the research papers. All accepted papers will be published in the conference proceeding book with ISBN number. More importantly, the accepted papers will also be published in refereed journals indexed by Malaysia Citation Centre (MCC). Papers that have the merits for publication in high index journals will be selected for publication in SCOPUS-indexed journals.

The conference has attracted a number of participations and accepted research papers from various research disciplines for publication in proceeding book and journals. All submitted papers were reviewed by the review committee and the corresponding acceptance notifications were emailed to the authors upon acceptance approval by the review committee. Subsequently all accepted papers will be published in conference proceeding book which is targeted to complete by end of September 2021. All accepted papers correspondingly, will be published in September or December 2021 Issue of the refereed journals depending on the wish of the authors. The proceeding (with ISBN) will be provided in PDF format while the journal is online and the related online URL links will be provided via email upon successful journal publication of the papers.

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A CASE STUDY ON SCHOOL CHILDREN CROSSINGS IN PUTRAJAYA

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Abstract. *With the increase of parents sending kids to schools using private vehicles, the school crossing environment becomes challenging. In this respect, the Putrajaya local authority has taken an initiative to implement Walking School Bus (WSB) program at one of the schools in Putrajaya. Nonetheless, the program was called a stop due to the outbreak of COVID-19 pandemic. This study examined the school environment and the children crossing behaviour. The results revealed that majority of the children crossed the roads without looking at the vehicles. Jaywalking was observed among the elder school children and the parents were seen travelling on the pedestrian crosswalk together with the school children. The speeds of vehicles at the section without traffic warden were generally higher than the side of road with traffic warden. In summary, the Walking School Bus (WSB) program would effectively reduce the traffic conflicts or crashes among the school children.*

Keywords: School, children, crossing, vehicles, local authority, Walking School Bus (WSB), Covid-19, pedestrian, traffic.

1. Introduction

In the car centric culture society today, children are hardly engaged in any physical activity. According to a survey by Simcoe Muskoka District Health Unit (2021), less than 1 in 5 children and youth in Canada were categorised as physically inactive, sedentary (sitting) and sleep behaviour as per recommended by the 24-Hour Movement Guideline. This situation is alarming as a physical inactive childhood leads to various non-communicable diseases such as heart disease, stroke, diabetes, obesity, some cancers, psychological, social and cognitive health (Ikeda et al., 2018; Ikeda et al., 2020).

Ever since, promoting active travel activities has become an important agenda in most countries. The physical activities said can be in the form of sports, walking/cycling to school or neighborhood built environment. Among these activities, active school travel is one of the physical activities that has received voluminous attention around the world. There are many evidences related to the benefits of active school travel (Buttazzoni et al., 2018). However, there are some deficiencies in the implementation of active school travel plan.

Active school travel is a complicated mechanism which is highly influenced by various factors from individual, social, environment and policy perspective according to a study by Ikeda et al. (2020). Ikeda et al. summarised the factors into six domains namely built environment, social environment, household characteristics, household belief, child characteristics, child belief and suggested that there is relationship between the school travel behaviour and the six domains. When the study tailored for the school travel in Auckland, New Zealand, it was found that active school travel is related to objectively-measured distance to school; neighbourhood social environment; household beliefs about traffic safety, social interaction and convenience; child age and sex; child beliefs of neighbourhood safety, and independent mobility.

Children develop certain skills and ability at specific age (Schieber, 1996; Thomson, 2006). At the age of four to six, young children normally need longer period of time before crossing as compared to older children, thereby, causing some delay between the time a young child decides to cross and when the older child has actually started to cross (Barton and Schwebel, 2007). For children aged between seven to nine, they have demonstrated some readiness to learn more complicated skills such as able to identify important information including oncoming traffic, however, they still require adult supervision while traversing the roads (Pasto and Burack, 1997; Pearson et al., 1991). When children reach the age of ten and above, they would be able to process the information and show some decision-making skills. Some of the children can walk around the carriageway with least or without the supervision of adults. In this respect, to ensure the safety of the children, the children should begin with simple and low traffic routes. The guidance by an adult on the roads can decrease the children's risk of collision by 70% (Jason et al., 2012). Lipton et al. (2002) in their study indicated that children sometimes misunderstood the purpose of a crossing facilities and respond to the measures based on their own interpretation and tend to take the shorter path when crossing rather than cross at the designated crossings.

Previous studies have shown that the influence of built environment on children crossing is also another challenging issue. Safe Kids (2021) revealed that children are exposed to greater risk at places with side parking vehicles, high density of traffic, high traffic speed, absence of separated roadways and lack of traffic calming measures. According to Goodman et al. (2004), the traffic safety improvement resulted from the infrastructural changes is faster than the behaviour change. This finding is supported by Smith et al. (2020) as numerous studies have shown that the infrastructure interventions are important in enabling children to get to school actively and safely at a larger scale. Thus, over the past decade, various infrastructure components such as traffic calming measures, pedestrian crossing, traffic signal and sidewalks/footpath have been provided within the vicinity of school areas with the aim to safeguard the walking school children.

Apart from providing sufficient infrastructure, the vehicular speed on routes used by school children should also be addressed. It has been well established that traffic speed is the main causal factor to collision risk and injury severity. Studies have shown that 90% of the pedestrians being hit by vehicles at a speed of 30km/h or under would survive the collision. Due to this fact, the advisory speed limit within school zones is set to 30km/h. Other interventions to ensure the safety of include educating the right crossing behaviour, implementing road safety campaign to other drivers, and enforcement activities.

The review of literature shows that the provision of safe and supportive environment is a key driver for the success of active school travel plan. Walking School Bus (WSB) program is one of the active school travel plans that has been widely implemented in many countries. Many benefits associated with the WSB program have been reported. In view of the benefits and aiming to improve the traffic safety in school zone and at the same time promote the healthy life-style among the school children, Perbadanan Putrajaya (PPJ) has taken the initiative to implement the WSB program in Putrajaya. Therefore, this study is a case study set to evaluate the school children crossing behaviour as well as to assess the usage of the pedestrian infrastructure in the school zone before the implementation of the WSB program in Putrajaya.

2. Methodology

A primary school located in Presint 14 Putrajaya was selected for the implementation of the WSB program in Putrajaya. However, due to the Pandemic Covid-19, the WSB program was at halt. Figure 1 shows the characteristics of the crossing at the school where there are two types of crossing, unsignalized crossing, located in front of the school gate and signalised crossing, located about 70meter away from the main gate. In this study, observation was conducted from 6.30 am to 7.30 am, before the morning school session begins. Two methods were utilized for data collection in this study, video-based observation for the crossing activity and onsite built environment inspection. A video camera was set up at both crossing areas to capture the behaviour of the children.

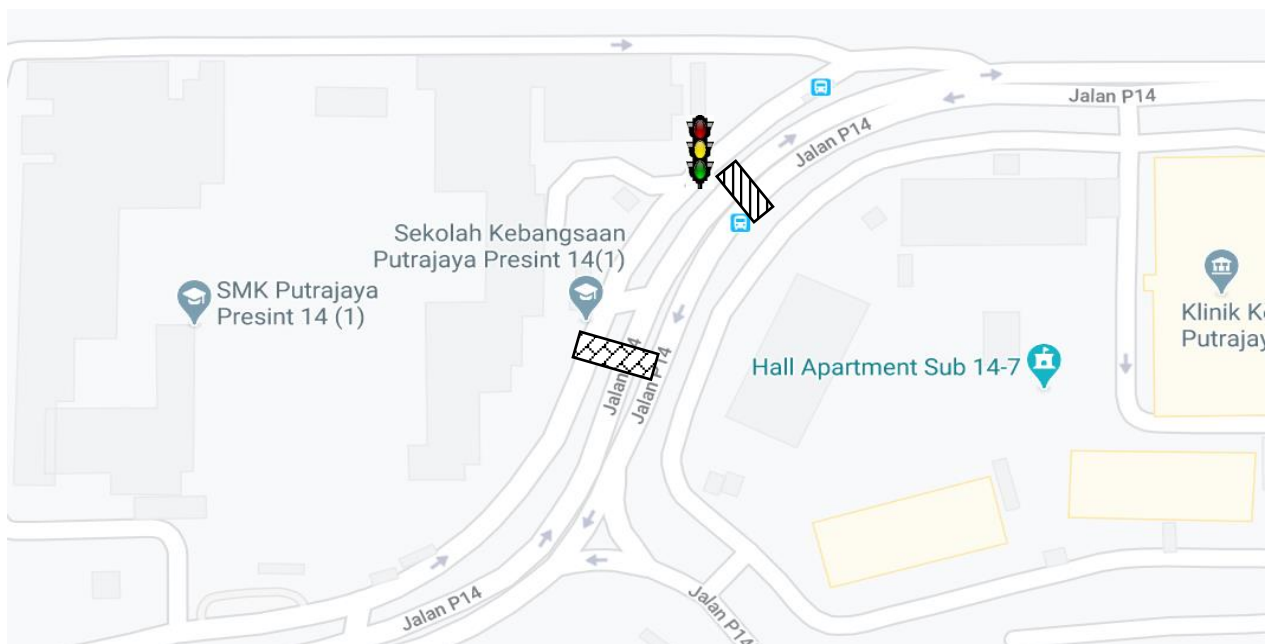


Figure 1: The Characteristic of Study Site

The attribute data drawn from the video focuses on the children crossing characteristics such as the crossing mode, stop before crossing, look at the traffic before and during crossing. In this study, the group size of students while crossing was not included as most children were seen crossing in groups due to the presence of a warden in controlling the traffic at unsignalized crossing. The travel speeds of the approaching vehicles at unsignalized crosswalk were obtained by using speed gun.

3. Results

A total of 772 primary school children crossing were recorded in this study. Among them, 51.5% (398) were girls and 48.5% (363) boys. Of the total number, only 19% crossed at the signalised junction.

Table 1 presents the results of the crossing behaviour among the school children at the unsignalized crossing. Wardens seen, either parents or retired volunteers, would be standing at the crosswalk to guide the children to cross the road. During the observation, less than 1% of the children were seen running crossing the roads without any caution. Most of the children observed would stop at the curb and wait for the instruction of the warden to cross the road. The clearance from the warden might be one of the reasons that prompted the children to cross the road without looking at the approaching vehicles.

In this study, a Chi-square test was also conducted to evaluate the gender effect on the crossing behaviour. As presented in Table 1, the engagement of girls in making head movements before crossing was higher as compared to boys.

Table 1: Distribution of Crossing Behaviour Among the School Children at Unsignalized Crossing

| Attribute | Category | Boys | Girls | Chi-square test (p value) |
|-------------------------------|----------|------|-------|---------------------------|
| Mode of movement | Walk | 287 | 332 | - |
| | Run | 1 | 4 | |
| Head movement Before crossing | Yes | 44 | 72 | 0.0489 |
| | No | 244 | 264 | |
| Head movement During crossing | Yes | 38 | 60 | 0.1105 |
| | No | 250 | 276 | |

As for children crossing behaviour at the signalised crossing, about 80% of the children would wait for the GREENMAN before crossing and 85% of them were seen walking across the road without running (as shown in Table 2). A significant difference was observed between boys and girls. More than 98% of the children did not pay attention to the oncoming vehicles while crossing at the signalized crossing area.

Table 2: Distribution of Crossing Behaviour Among the School Children at Signalised Crossing

| Attribute | Category | Boys | Girls | Chi-square test (p value) |
|-------------------------------|----------|------|-------|---------------------------|
| Waiting for GREENMAN | Yes | 59 | 55 | 0.6256 |
| | No | 15 | 17 | |
| Mode of movement | Walk | 57 | 65 | 0.0308 |
| | Run | 17 | 7 | |
| Head movement Before crossing | Yes | 9 | 6 | 0.4400 |
| | No | 65 | 66 | |
| Head movement During crossing | Yes | 1 | 0 | - |
| | No | 73 | 72 | |

Figure 2 exhibits the proportion of head movement behaviour seen between the boys and girls and the different crossings. It is interesting to note that in general, the children's alertness to the oncoming traffic were lesser as they approached the middle of the road.

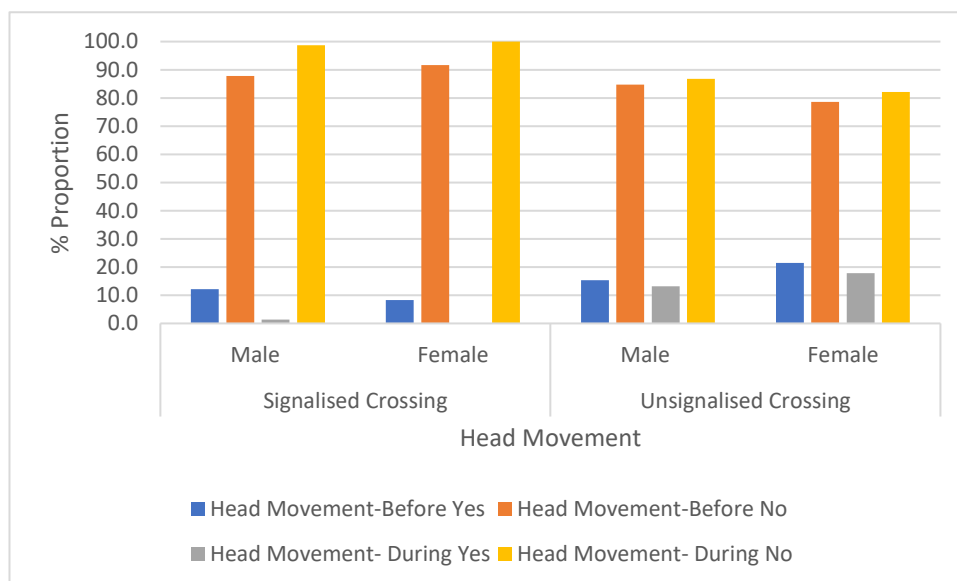


Figure 2: Head Movements for the School Children at the Crosswalk

Speed study was conducted at the unsignalized crosswalk to understand the vehicle speeds when approaching the unsignalized crosswalk in both directions (to/from Sg Merab). Figure 3 illustrates the 85th percentile speed profiles in both directions. As shown, it was found that the 85th percentile speeds for the oncoming vehicles were above 30 km/h, the advisory speed limit within the school zone. Of the two profiles, the vehicle speeds from Sg Merab (towards the housing areas) have a wider range as compared to the vehicles travelling towards Putrajaya (to Sg Merab). In other words, the narrow speed range was due to the presence of warden at the first half of the road section (Figure 4). The high travel speeds and the presence of only one warden on-site may expose the children to the risk of collision particularly when crossing in the dark time.

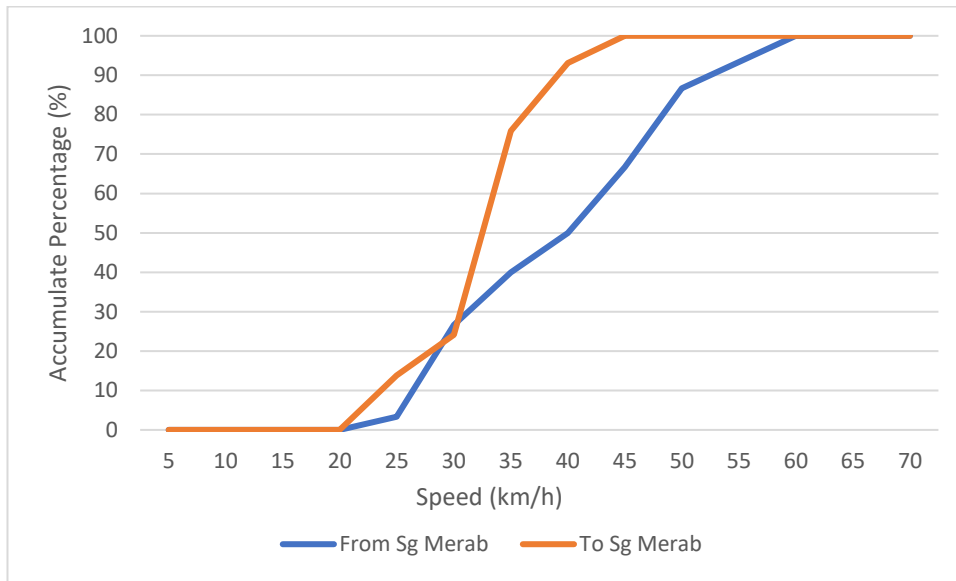


Figure 3: Speed Profiles

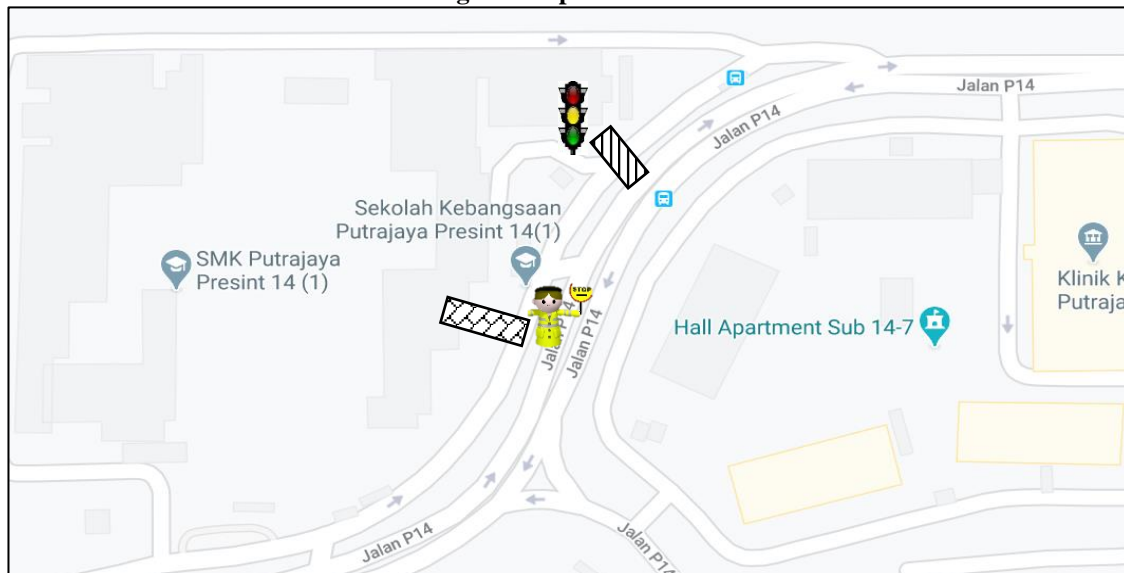


Figure 4: Presence of Warden at the First Half Section

Based on observation on-site, several hazards were also identified. as shown in Table 3 and Figure 5, motorcyclists were seen traveling on the crosswalk together with the children. This situation is indeed very dangerous as the children will be exposed the risk of being involved in a crash, particularly as the children were carrying heavy school bags.

Table 3. Unsafe Crossing Between 6.30 am to 7.30 am

| Item | Unsignalised pedestrian crossing | Signalise pedestrian crossing |
|-----------------------|----------------------------------|-------------------------------|
| Number of Motorcycles | 5 | 15 |

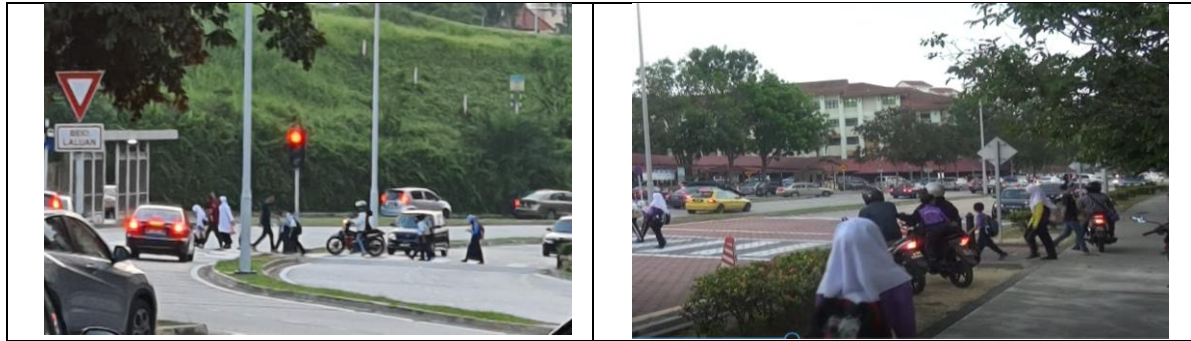


Figure 5: Unsafe Interactions Between Children and Motorcycles at Crosswalks

As the school located within a housing area, the roadside was occupied by a row of parked vehicles, as shown in Figure 6. The parked vehicles on the roadside may cause harm to the school children as the sight distance of the children are blocked by the vehicles. Other than that, jaywalking behaviour was also observed among the elder children.

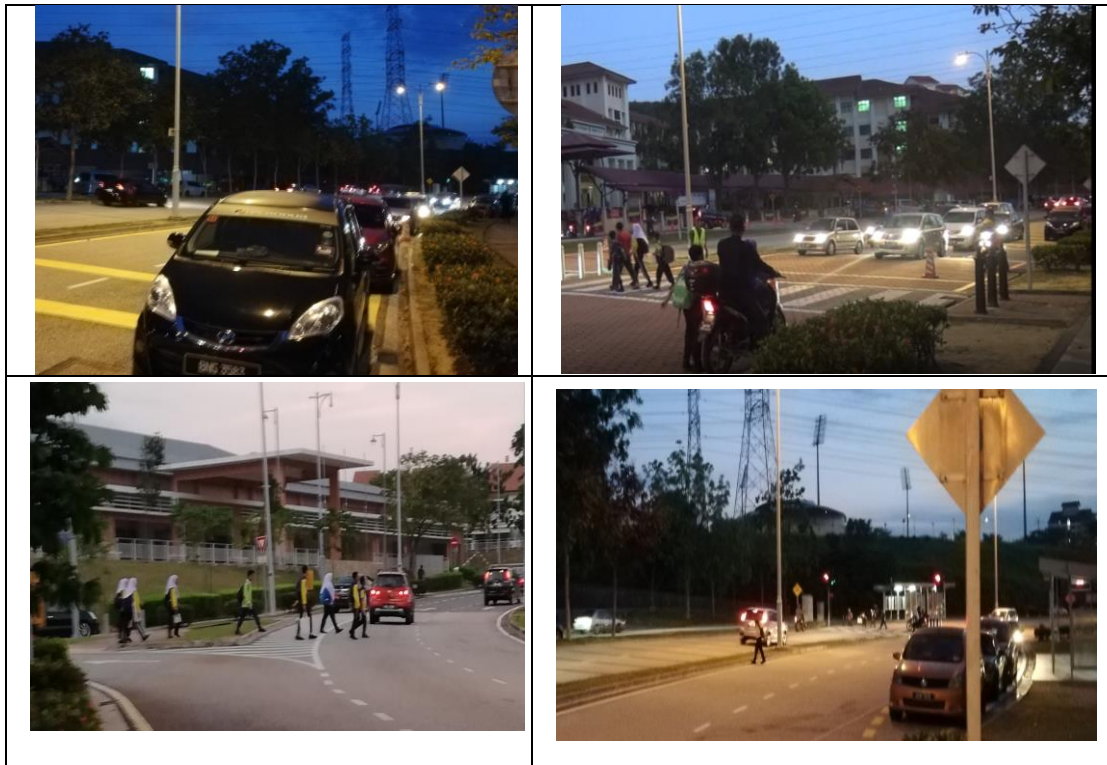


Figure 6: Unsafe Interactions

4. Discussion and Conclusions

The purpose of road crossing among children can be classified into two categories, as school trips and leisure trip, of which the school trip might comprise the bigger proportion of the children daily activity. By implementing proper planning for safe school travel route, safe leisure walking activities can also be promoted at the same time. However, in many of the township planning, the design of infrastructure is usually based on an adult's perspective. Thus, a more rounded planning should be devoted at the planning stage and more ergonomic engineering design. One should always bear in mind that children also learn to adapt the traffic environment at different ages.

The results of this study reveal that though the engineering infrastructure were provided on-site, the children as well as the parents would still exhibit different kind of adaption behaviour to the environment. Parents were seen utilizing the pedestrian crossings at their convenience and the deliberately parking on the roadside and putting the children who wish to cross the road at danger. While engineering approach is not able to safeguard the road users, other E' measures such as Education and Enforcement measures should come into play. The road safety education program which was introduced in 2005 has been embedded into primary school syllabus to enhance the road safety knowledge among the children. In terms of adults, the enforcement might be one of the best solutions in modifying their behaviour on the roads.

The advisory speed limit within a school zone is 30 km/h. However, high prevalence travel speeds were observed within the study area. Though speed table and transverse bar were provided as approaching the signalised crossing, results from this study revealed that the traffic calming measures provided on-site failed to achieve the speed reduction objective. In this respect, extending the scope of school zone and enforcing the existing speed limit would be another option for better speed control. It was also observed wider range of speed profiles were noted at the second half of the crossing, where no warden was stationed at the point. Thereby, it is recommended to have wardens on both sections of the road.

Review of literature has shown that the Walking School Bus (WSB) program is an effective program that has gained popularity in most countries. In Malaysia, with increased number of car use, the WSB program can effectively reduce the traffic congestion within the school zones if implemented properly. However, there are many deficiencies as discussed in this study that need to be addressed before the implementation of the WSB program.

In conclusion, the implementation of active school travel plans such as the WSB program will not only help the children to achieve a healthy lifestyle perspective but also to improve the traffic safety by offering a convenient option to those vehicle dependent parents.

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GAMBARAN KESELURUHAN PROGRAM TENAGA BOLEH DIPERBAHARUI KE ARAH KONSEP PEMBANGUNAN BANDAR HIJAU DI KERAJAAN TEMPATAN MELAKA

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Abstract: *Kajian ini mengemukakan gambaran keseluruhan program Tenaga Boleh Diperbaharui 'Renewable Energy' (RE) dan Konsep Bandar Hijau 'Green City Concept' (GCC) oleh kerajaan tempatan dalam mempromosikan Bandar Hijau pada peringkat tempatan untuk menjadi sebahagian daripada agenda yang berjaya. Ini juga menjelaskan tentang pelan tindakan yang dilakukan di Malaysia dan pelaksanaan projek-projek Bandar Hijau yang dimulai oleh pihak berkuasa tempatan. Oleh itu, kajian ini menggunakan beberapa bahan literatur yang dikumpulkan untuk memberikan perspektif penjelasan dalam kajian ini dengan pelbagai elemen dalam program RE seperti model RE dan GCC dan program yang dapat meningkatkan prestasi kerajaan tempatan Melaka. Kajian menunjukkan bahawa kerajaan tempatan memainkan peranan yang sangat penting dengan melaksanakan lebih banyak program RE yang berpotensi di bawah GCC dalam menyokong masyarakat secara berkesan untuk kemajuan masa depan mereka. Oleh itu, hasil kajian ini diharapkan dapat memberikan maklumat yang signifikan bagi kerajaan untuk memainkan peranan yang lebih besar dalam memberi kesedaran kepada masyarakat tentang merealisasikan pelaksanaan GCC dalam pentadbiran pihak berkuasa tempatan.*

Keywords: Konsep Bandar Hijau, Program Tenaga Boleh Diperbaharui, Kerajaan Tempatan, Pelaksanaan Konsep Bandar Hijau.

1. Pengenalan

Dalam menghadapi globalisasi ekonomi dan sumber yang berkurangan, pembangunan ekonomi hijau adalah satu kemestian. Kepesatan pembangunan Bandar Hijau menjadi trend yang semakin meningkat. Pembangunan Bandar Hijau merupakan projek integrasi yang kompleks dan memerlukan sistem indeks penilaian yang komprehensif dan memerlukan model penilaian saintifik (Li, 2019). Ini adalah aspek penting dalam pembangunan ekonomi hijau dan konotasinya.

Bandar Hijau merupakan istilah yang meluas dan sering digunakan - ia ialah idea umum kontemporari dalam politik, perancangan, sains, dan wacana umum. Walau bagaimanapun, setiap bidang memberikan makna dan kaitan yang berbeza dengan konsep. Bandar Hijau membawa konsep bersama mengenai suatu matlamat positif, sama ada yang sudah dicapai atau belum dapat dicapai. Erti matlamat positif ini perlu spesifik dan mudah dicapai kerana bandar adalah sebuah entiti tempatan dan konkrit. Masyarakat dan wakilnya, serta media dan politikus, mendesak dan beralasan dengan bertujuan untuk membangunkan Bandar Hijau pada skala nasional, wilayah, dan tempatan. Oleh itu, Bandar Hijau mesti mewujudkan kandungan "hijau" yang konkrit pada skala tempatan. Konsep ini tidak hanya boleh dianggap sebagai visi tetapi juga sebagai program yang realistik (Breuste, 2020).

Malaysia mempunyai banyak potensi dalam RE seperti solar, angin, hidro, biogas dan biojisim tetapi ia belum diterokai sepenuhnya. Sebenarnya, negara ini hampir sepenuhnya bergantung pada bahan bakar fosil (Lim et al., 2006; Shamsuddin, 2012; Alhayali, 2017; Abdullah et al., 2019; Hamid et al., 2019). Penggunaan tenaga tidak boleh diperbaharui yang dikenali sebagai sumber tenaga konvensional seperti arang batu, gas asli dan diesel hanya dapat bertahan sehingga tahun 2025 (Maulud et al., 2017; Hamid et al., 2019). Kebergantungan ini telah menghasilkan banyak bencana dan kerosakan terutamanya pencemaran alam sekitar. Sebagai contoh, isu pencemaran udara di China telah memaksa kerajaannya mengisytiharkan darurat negara kerana tahap pencemaran alam sekitar yang serius (Lin & Zhu, 2020). Oleh itu, melalui program RE di bawah GCC, ia dapat mengurangkan pencemaran dan pada masa yang sama meningkatkan kualiti hidup warga dan banyak lagi (Brilhante & Klaas, 2018).

Di Malaysia, program RE telah dilancarkan sebagai strategi bahan bakar kelima dalam campuran tenaga di bawah Dasar Tenaga Nasional pada tahun 2001 (Shamsuddin, 2012). Istilah Bandar Hijau pertama kali mendapat perhatian orang ramai semasa pembentangan Rancangan Malaysia Kesepuluh oleh bekas Perdana Menteri Malaysia, Datuk Seri Mohd Najib Tun Abdul Razak. Istilah ini juga telah digunakan secara meluas di negara-negara barat sejak awal tahun 1990-an (Azmi & Romle, 2015). Bandar Hijau merujuk kepada bandar yang telah dirancang khas untuk warga bandarnya, dan warga bandar ini sangat komited untuk mengurangkan pengeluaran sampah dan pencemaran termasuk hal lain yang berkaitan dengannya (Latif et al., 2013). Kesedaran alam sekitar meningkat sejak Persidangan Pertubuhan Bangsa-Bangsa Bersatu (PBB) pada tahun 1972, dan Malaysia memberikan sokongannya di Sidang Kemuncak Rio, dan kemudian di Sidang Alam Sekitar Alam Semulajadi Malaysia pada tahun 1992 (Ramli, Omar & Ahmad, 2019). Pada abad ke-21, Revolusi Hijau telah menjadi terkenal gara-gara perubahan iklim alam sekitar yang luar biasa dan ini telah menyebabkan munculnya GCC dengan terbentuknya Inisiatif Kejiranan Hijau. Penjimatan tenaga kini telah menjadi salah satu indikator kerajaan Malaysia (Ramli et al., 2019).

Kerajaan Malaysia telah membuat Rancangan Pembangunan Lima Tahun Nasional Malaysia untuk memastikan alam sekitar alam semulajadi yang lestari. Dasar Nasional ini juga merangkumi Alam Sekitar dan Teknologi Hijau dan ia dibentuk untuk meningkatkan kualiti hidup (Azmi & Romle, 2015). Malaysia telah melaksanakan dasar yang baik untuk menuju alam sekitar alam semulajadi yang hijau sejak Rancangan Malaysia Ketiga (1976 - 1980) dan meneruskannya dengan perlindungan alam sekitar sebagai agenda utamanya dan ia merupakan kerangka pembangunan nasional dalam Rancangan Malaysia Kelima (1986 - 1990) (Ramli et al., 2019). Ia seterusnya diikuti dengan Rancangan Malaysia Kelapan (2001 - 2005) untuk memastikan pembangunan sumber tenaga, RE dan bangunan hijau yang lestari. Ia juga menjadi sebahagian daripada alam sekitar alam semulajadi yang lestari untuk kepentingan generasi yang akan datang serta turut dilaksanakan dalam Rancangan Malaysia Kesepuluh dari tahun 2010 hingga 2015 (Azmi & Romle, 2015; Ibrahim et al., 2015). Perancangan ini masih diteruskan dalam Rancangan Malaysia Kesembilan (2006 - 2010) dan Rancangan Malaysia Kesebelas masih memfokuskan pada pembangunan hijau dan pembangunan lestari (Ramli et al., 2019). Malaysia semakin serius dan agresif dalam perjalanannya menuju pembangunan lestari melalui Agenda 2030. Contohnya, Pelan Tindakan Bandar Hijau Subang Jaya 2030 telah menjadi salah satu inisiatif kerajaan tempatan terhadap Bandar Hijau dengan harapan Majlis Perbandaran Subang Jaya akan menjadi Bandar Hijau menjelang 2030.

Walaupun banyak dasar dan program telah dirancang, status pembangunan RE di Malaysia setakat ini, dianggarkan masih sekitar 2% sahaja, belum mencapai sasarannya dan memerlukan jangka masa yang lebih panjang untuk mencapai sasaran sebenar iaitu 20% menjelang 2025 (Islam et al., 2009; Abdullah et al., 2019). Ini menunjukkan bahawa pelaksanaan dasarnya masih pada tahap yang sangat perlahan. Untuk mempercepatkan proses pelaksanaan dasar ini, sebuah pelan sedang disusun oleh Lembaga Pembangunan Tenaga Lestari 'Sustainable Energy Development Authority' (SEDA) dan akan menjadi sebahagian daripada Rancangan Malaysia Kedua Belas (2021 - 2025). Malaysia perlu meningkatkan pencapaian dengan segera dalam pelaksanaan inisiatif ke arah Bandar Hijau dari segi sistem dan proses dasar (Ibrahim et al., 2015). Kerajaan tempatan mempunyai kemampuan untuk menarik perhatian masyarakat, menggerakkan firma, dan membentuk kerjasama hubungan yang baru antara awam-swasta supaya dengan hubungan ini ia juga dapat menghasilkan keuntungan ekonomi dalam penyertaan eksport teknologi hijau yang dipertingkatkan dan ekopelancongan yang lebih besar (Demaizere, 2020).

Dalam menghadapi globalisasi ekonomi dan sumber yang berkurangan, pembangunan ekonomi hijau adalah satu kemestian. Kepesatan pembangunan Bandar Hijau menjadi trend yang semakin meningkat. Pembangunan Bandar Hijau merupakan projek integrasi yang kompleks dan memerlukan sistem indeks penilaian yang komprehensif dan memerlukan model penilaian saintifik (Li, 2019). Ini adalah aspek penting dalam pembangunan ekonomi hijau dan konotasinya.

Bandar Hijau merupakan istilah yang meluas dan sering digunakan - ia ialah idea umum kontemporari dalam politik, perancangan, sains, dan wacana umum. Walau bagaimanapun, setiap bidang memberikan makna dan kaitan yang berbeza dengan konsep. Bandar Hijau membawa konsep bersama mengenai suatu matlamat positif, sama ada yang sudah dicapai atau belum dapat dicapai. Erti matlamat positif ini perlu spesifik dan mudah dicapai kerana bandar adalah sebuah entiti tempatan dan konkrit. Masyarakat dan wakilnya, serta media dan politikus, mendesak dan beralasan dengan bertujuan untuk membangunkan Bandar Hijau pada skala nasional, wilayah, dan tempatan. Oleh itu, Bandar Hijau mesti mewujudkan kandungan "hijau" yang konkrit pada skala tempatan. Konsep ini tidak hanya boleh dianggap sebagai visi tetapi juga sebagai program yang realistik (Breuste, 2020).

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2. Tinjauan RE dan GCC

2.1 Program RE dan GCC

Sumber RE yang terbesar di Malaysia ialah tenaga hidro yang menyumbang 16.6% pengeluaran elektrik berbanding dengan yang lain iaitu hanya 0.7% (Hamid et al., 2019). Walau bagaimanapun, kajian lain juga mendapati bahawa tenaga solar adalah salah satu sumber tenaga yang paling prospektif dan paling banyak terdapat di Malaysia (Islam et al., 2009; Hamid et al., 2019). Tambahan pula, solar termal dan tenaga angin adalah dua RE terbaik yang berpotensi untuk dikembangkan di Malaysia (Haw et al., 2006). Penggunaan RE di bangunan hijau membawa kepada kecekapan tenaga dan kelestarian alam sekitar (Todorovic, 2012). Bangunan hijau merujuk kepada tindakan mendirikan struktur dan menangani proses yang bertanggungjawab terhadap alam sekitar dan cekap-sumber yang merangkumi seluruh kitaran hidup bangunan dari tempat duduk hingga reka bentuk, pembinaan, operasi, penyelenggaraan, pengubahsuaian, dan pembinaan semula (archive.epa.gov, 2016). RE telah menjadi peranan utama dalam mempengaruhi prestasi sesebuah Bandar Hijau itu (Brilhante & Klaas, 2018).

Beberapa Program RE telah dilaksanakan oleh kerajaan Malaysia (Mekhilef et al., 2014). Ini dapat ditunjukkan daripada penyelidikan sebelumnya, iaitu:

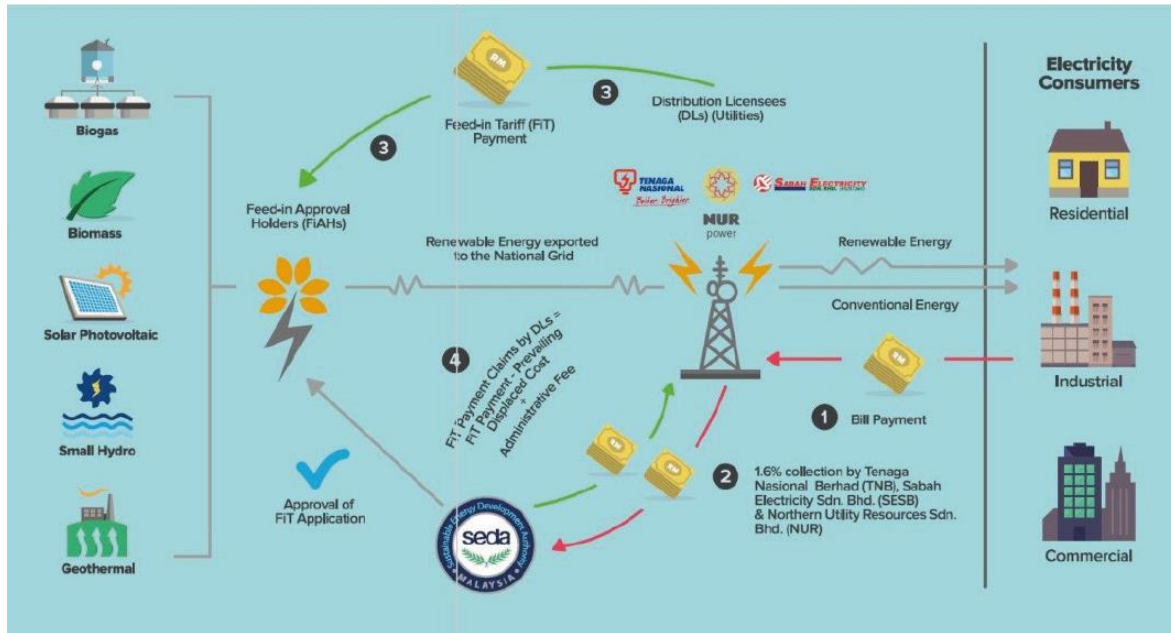
1. Program Pembangunan Janakuasa Kecil Tenaga Yang Boleh Diperbaharui (SREP)
2. Projek Demonstrasi dan Penjanaan Tenaga Biojisim (BioGen) dibawah Program Pembangunan Bangsa-Bangsa Bersatu 'United Nations Development Programme' (UNDP) dan Kemudahan Alam Sekitar Global 'Global Environment Facility' (GEF)
3. Projek Fotovoltaik Bersepadu Bangunan Malaysia 'Malaysian Building Integrated Photovoltaic' (MBIPV)
4. Program Transformasi Ekonomi 'Economy Transformation Program' (ETP)
5. Tarif Galakan 'Feed-in Tariff' (FiT)

Selain itu, sebagai contoh seperti yang ditunjukkan dalam Pelan Tindakan Teknologi Hijau Negeri Selangor dari tahun 2016 hingga 2018, program RE adalah salah satu pelan utama untuk kerajaan tempatan mereka ke arah pembangunan Bandar Hijau. Terdapat tujuh pelan tindakan, iaitu:

1. Kerangka Bandar Rendah Karbon atau dikenali sebagai Low Carbon Cities Framework (LCCF)
2. Perolehan Hijau Kerajaan Negeri Selangor
3. Pemasangan Rangkaian Pengecap Kenderaan Elektrik
4. Penggunaan Bas Elektrik untuk Program 'Bas Percuma'
5. Pemasangan Bumbung Solar bagi Projek Perumahan Selangorku
6. Bangunan Cepak Tenaga di Bangunan Kerajaan Negeri Selangor
7. Program Penghijauan Taman Industri

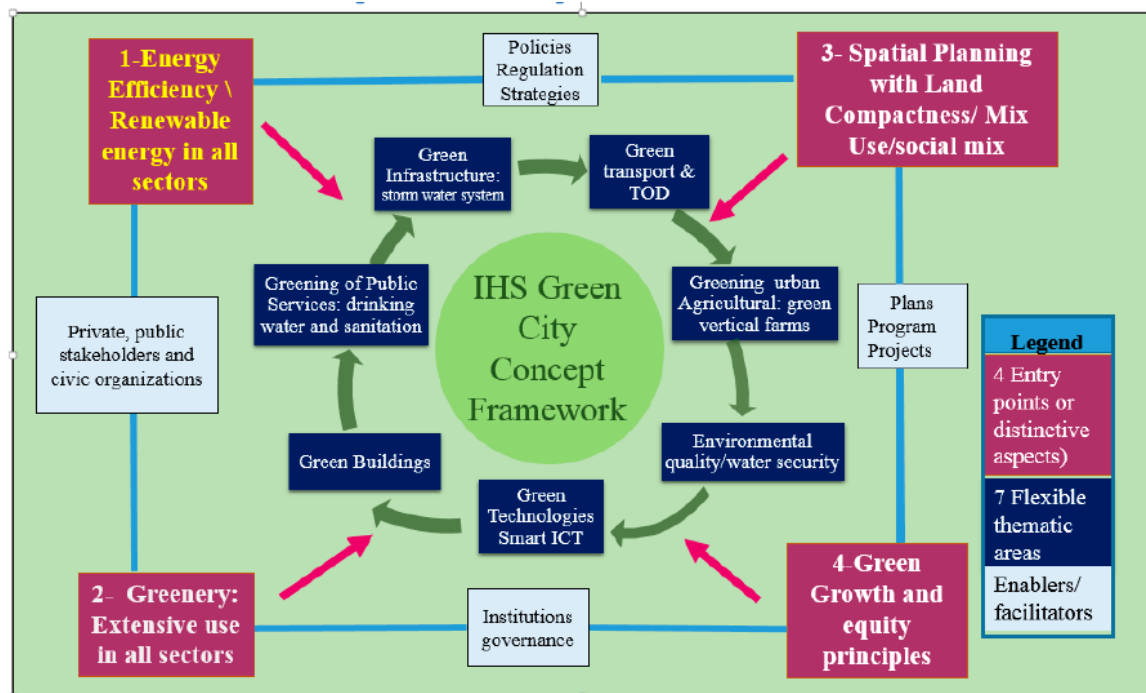
2.2 Teori dan Model RE dan GCC

Gambar di bawah menunjukkan kerangka konseptual mekanisme FiT untuk sumber RE, iaitu biogas, biojisim, PV solar, hidro kecil dan geoterma di Malaysia.



Rajah 2.1: Kerangka Konseptual Mekanisme Tarif Galakan atau dikenali Feed-in Tarif (FiT)
Sumber: Laporan Tahunan 2017 oleh Pihak Berkuasa Pembangunan Tenaga Lestari (SEDA) Malaysia

Selain itu, Kerangka Konseptual Bandar Hijau dalam kajian terdahulu telah dicadangkan oleh Institut Kajian Perumahan dan Pembangunan Bandar ‘Institute for Housing and Urban Development Studies’ (HIS) sebagai kaedah untuk mengukur prestasi Bandar Hijau sementara RE bertindak sebagai salah satu pemboleh ubah bebas yang mempengaruhi prestasi Bandar Hijau (Brilhante dan Klaas, 2018). Penyelidikan ini mendapati bahawa RE dan kecekapan tenaga adalah faktor pengaktifan terpenting bagi GCC.



Gambar 2.2: Kerangka Konseptual Bandar Hijau oleh Institut Kajian Perumahan dan Pembangunan Bandar (HIS), (2019)

Tindakan penyelesaian masalah semasa yang berlaku melalui 'hijau' telah menjadi pilihan popular di seluruh dunia untuk mengurangkan pencemaran dan sebagai solusi untuk isu alam sekitar yang berlaku dalam bandar-bandar besar dunia. Istilah Bandar Hijau telah menjadi semakin popular dalam beberapa tahun kebelakangan ini walaupun telah dipraktikkan dan dilaksanakan di negara-negara barat sejak awal tahun 1990-an lagi. Di Malaysia, istilah ini pertama kali disampaikan kepada umum ketika diumumkan oleh Datuk Seri Mohd Najib Tun Abdul Razak, mantan Perdana Menteri ketika membentangkan Rancangan Malaysia Kesepuluh apabila Cyberjaya dan Putrajaya dipilih sebagai model perintis. Pembangunan lestari yang relevan secara tempatan dan sesuai dengan budaya dapat merangkumi beberapa tujuan atau tema bersama (Noranida dan Khairulmaini, 2014).

Skim Pelaksanaan Antarabangsa untuk Dekad Pendidikan Bangsa-Bangsa Bersatu untuk Pembangunan yang Lestari 'United Nations Decade of Education for Sustainable Development' (UNDESD) telah mengenal pasti tiga elemen utama yang mesti wujud dalam sesebuah konsep pembangunan lestari itu, iaitu:

- i) Elemen Masyarakat: pemahaman tentang institusi sosial dan peranannya dalam transformasi dan pembangunan, serta sistem demokratik dan partisipasi yang memberi kesempatan untuk menyatakan pendapat, pemilihan kerajaan, penentuan konsensus, dan penyelesaian perbezaan
- ii) Elemen Alam Sekitar: kesedaran tentang sumber dan ketidakteguhan alam sekitar fizikal dan kesannya terhadap aktiviti dan keputusan manusia, dengan komitmen memfaktorkan keprihatinan alam sekitar ke dalam setiap pembangunan dasar sosial dan ekonomi.
- iii) Elemen Ekonomi: kepekaan terhadap had dan potensi pertumbuhan ekonomi dan kesannya terhadap masyarakat dan alam sekitar, dengan komitmen untuk menilai tahap penggunaan peribadi dan masyarakat daripada perhatian terhadap alam sekitar dan keadilan sosial.

Pembangunan lestari menjamin kesejahteraan manusia dengan mengintegrasikan ekuiti sosial, daya maju ekonomi, dan pemuliharaan dan perlindungan alam sekitar (Chua Fuh Ying, 2013). Sebilangan besar tafsiran pembangunan lestari berfungsi dalam formula Brundtland tetapi berbeza dengan penekanan yang diberikan pada setiap tiga komponen pembangunan lestari ini, iaitu ekonomi, alam sekitar dan masyarakat (Noranida, 2014). Menurut Chua et al. (2013), terdapat dua dasar nasional mengenai alam sekitar dan teknologi di Malaysia, iaitu Dasar Nasional Menekankan Dasar Nasional terhadap Alam Sekitar (2002) dan Dasar Teknologi Hijau Nasional (2009). Dasar Nasional Menekankan Dasar Nasional terhadap Alam Sekitar (2002) memfokuskan pada kemajuan ekonomi, sosial dan budaya melalui pembangunan lestari alam sekitar. Sementara itu, Dasar Teknologi Hijau Nasional (2009) memfokuskan pada Tenaga Pembangunan Lestari yang berusaha mencapai kebebasan tenaga dan mempromosikan penggunaan yang cekap, menjimatkan dan meminimumkan kesan terhadap alam sekitar, meningkatkan pembangunan ekonomi nasional melalui penggunaan teknologi dan meningkatkan kualiti hidup untuk semua.

2.3 Pelaksanaan Pelan Tindakan Bandar Hijau di Melaka

Bandar Hijau dapat didefinisikan sebagai bandar berdaya tahan, inklusif, pengurusan sumber semula jadi yang baik, dan mempromosi pengurangan dan kawalan rendah karbon untuk terus berdaya saing dan meningkatkan daya hidup semua penduduknya (Asian Development Bank, 2020). Untuk melaksanakan pelan tindakan Bandar Hijau, langkah utama adalah menguruskan inisiatif pelan menjadi tindakan yang dapat dicapai dan menugaskan sub-jawatankuasa yang dikenali sebagai Perkongsian Pengurusan Bandar Antara Kerajaan 'Intragovernmental Urban Management Partnerships' dengan tanggungjawab untuk melaksanakan tindakan dan / atau projek masing-masing secara kolektif sehingga mencapai tujuan inisiatif tersebut. Melaka telah melaksanakan langkah ini dengan beberapa cara.

Melaka menyiapkan pelan tindakan pertama sebagai sebahagian daripada inisiatifnya dan ini memberi contoh kepada bandar-bandar lain di wilayah tersebut. Jabatan kerajaan bandar, penduduk setempat, komuniti perniagaan, kementerian nasional, dan agensi pembangunan sejak itu kesemuanya mengejar impian untuk menuju kepada kelestarian, yang menyebabkan beberapa inisiatif yang menandakan pelaksanaan proses perencanaan pelan tindakan. Melaka telah mula melaksanakan Pelan Tindakan Bandar Hijau "Green City Action Plan" (GCAP) melalui program RE, sebuah ladang suria 5-megawatt yang dirasmikan pada tahun 2013 dan pembentukan Lembah Solar Dunia Melaka 'Melaka World Solar Valley' (MWSV).

Malahan, Melaka telah mula mengubah Sungai Melaka dari terusan saliran halaman belakang yang tercemar menjadi kemudahan budaya yang popular, tarikan pelancong, dan ruang hijau yang menyenangkan. Melaka mempunyai beberapa usaha pelaksanaan lain yang sedang dilakukan, termasuk projek kecekapan tenaga perintis untuk menaik taraf lampu jalan dan bangunan awam terpilih, stesen pengisian kenderaan elektrik, pembangunan Bandar Hijau Hang Tuah Jaya, penukaran bas diesel menjadi bas elektrik, dan pelaksanaan Memeterai Hijau Melaka 'Melaka Green Seal' untuk perakuan bangunan. Pelan tindakan ini telah memberi Melaka jalan ke arah menjadi komuniti yang lestari, dan ini mencerminkan bermulanya pendekatan komprehensif yang menyatukan tindakan individu.

Salah satu contohnya ialah penubuhan Majlis Teknologi Hijau, dan perkhidmatannya mereka sebagai agensi pelaksana untuk TA Susulan Bandar Hijau 'Green Cities Follow-Up TA'. Langkah lain diringkaskan oleh kata pepatah "Apa yang anda ukur hanyalah apa yang anda kelola," yang menyiratkan perlunya pembentukan indikator dan indeks yang berkaitan. Ini ukuran keberkesanan prestasi pengurusan. Dalam konteks bandar, indikator ialah ukuran prestasi bandar. Memandangkan pengurusan bandar melibatkan sekumpulan aktiviti yang kompleks dan bersepadu, menjadi mustahak untuk mengutamakan aktiviti tersebut dan indikator yang berkaitan sebagai indikator prestasi utama 'key performance indicators' (KPI). Namun, ada inisiatif lain, yang memberikan maklumat penanda aras yang berguna berdasarkan KPI mengenai cara satu bandar membandingkan bandar lain. Maklumat ini adalah untuk kegunaan bandar bagi mendorong peningkatan prestasi. Walaupun terdapat sebilangan kerangka KPI untuk perbandingan antara bandar, ada juga kerangka intra-bandar untuk membandingkan prestasi bandar itu sendiri pada sepanjang masa. Ini mengenal pasti KPI merentasi kategori isu alam sekitar atau kelestarian lain. Semua KPI ini cenderung menjadi indikator hasil, yang menunjukkan berapa baik prestasi sebuah bandar dalam konteks kategori tersebut.

Forum Ketua Menteri dan Gabenor ‘Chief Ministers and Governors Forum’ (CMGF) Kawasan Segi Tiga Pertumbuhan Indonesia-Malaysia-Thailand ‘Indonesia–Malaysia–Thailand Growth Triangle’ (IMT-GT) Ke-9 yang diadakan pada tahun 2012 dalam usaha mengikuti dan melaksanakan inisiatif baharu untuk Bandar Hijau di IMT-GT melalui pelaksanaan pelan tindakan Bandar Hijau. Pelan tindakan mengambil kira contoh, kerangka kerja, pelan induk pembangunan, dan projek jangka/pengukuh Bandar Hijau yang sedia ada untuk mengenal pasti potensi tindakan dan projek yang akan menyokong komuniti ini untuk menjadi model kelestarian bandar. Bank Pembangunan Asia ‘Asian Development Bank’ (ADB) bertindak balas dengan membantu bandar Melaka (Malaysia), Songkhla dan Hat Yai (Thailand), dan Medan dan Batam (Indonesia) untuk mengembangkan Pelan Tindakan Bandar Hijau yang komprehensif (GCAP).

2.4 Program di bawah Pelan Tindakan Bandar Hijau Program Tenaga Diperbaharui (REP)

2.4.1 Transformasi Sungai Melaka

Sungai Melaka, penempatan sungai tertua sejak setengah milenium yang lalu, secara praktikalnya tidak mempunyai simpanan di tebing. Pembangunan rumah dan kedai secara sembarangan dan setinggan di sepanjang sungai selama berabad-abad telah mengakibatkan pencerobohan secara tidak sengaja ke dalam sungai. Pelan induk projek ini memperuntukkan jalan keluar di sebalik peluasan haram ini, yang membolehkan pemulihan tebing sungai sekali lagi (<https://www.worldarchitecturenews.com>).

Sungai Melaka, yang melintasi Bandar Warisan Dunia UNESCO, sekali lagi menjadi ‘talian hayat’ utama bandar ini, kerana semakin banyak aktiviti dihasilkan dan bangunan asalnya yang wujud di persiaran sungai baharu. Kekangan tersebut merangkumi perundangan, perobohan struktur yang sedia ada, ruang pembinaan dan kepekaan terhadap kesejahteraan bangunan yang sedia ada yang dibina hampir 100 tahun yang lalu. Transformasi Sungai Melaka boleh dianggap sebagai ‘luar biasa’. Daripada sungai yang dulunya berlumpur dan tersumbat dengan sampah terapung, Sungai Melaka telah berubah menjadi sungai yang bersih dan indah. Tidak ada lagi halaman belakang kedai dan rumah yang kotor. Tidak ada lagi rasa loya atau yang menjijikkan apabila sampah dilihat dibuang ke dalam sungai. Sebaliknya, ada pemandangan yang sangat mengagumkan yang menarik perhatian pelancong yang bersantai dengan kamera di atas kapal pesiaran sungai.

Kini Sungai Melaka menjadi tarikan pelancongan utama untuk Bandar Warisan Dunia ini dan juga sebahagian daripada pembangunan ekonomi dan pengagihan semula kekayaan Melaka. Program Pengindahan Sungai Melaka diilhamkan oleh usaha serupa yang dilakukan di Sungai San Antonio di Texas, Amerika Syarikat yang terkenal dengan keindahannya dan mampu menarik sekitar 13 juta orang pelancong setahun. Program untuk meningkatkan keindahan Sungai Melaka dilaksanakan di bawah empat fasa dengan kos RM30 juta yang bermula pada tahun 2002 (<http://www.theborneopost.com>).

2.4.2 Projek Kecekapan Tenaga Perintis untuk Menaik Taraf Lampu Jalan dan Bangunan Awam Terpilih (2016-2017)

Objektif projek ini adalah untuk menaik taraf sistem pencahayaan jalan raya di negeri Melaka dengan menggunakan lampu LED yang cekap tenaga bertujuan untuk mengurangkan pelepasan CO₂, menurunkan kos lampu jalan dan meningkatkan keselamatan jalan raya. Kira-kira 100 ribu lampu HPS akan diganti dengan sistem LED dengan anggaran kos RM45 hingga RM60 juta. Kos modal projek dapat dikembalikan sebahagiannya melalui penjimatan tenaga dan penyelenggaraan yang dihasilkan dalam fasa operasi. Pelanggannya ialah Perbadanan Teknologi Hijau Melaka 'Melaka Green Technology Corporation', sebuah organisasi yang dimiliki oleh kerajaan negeri Melaka dan ditugaskan untuk melaksanakan projek-projek yang mesra alam di Melaka. Ini bertujuan supaya projek ini akan ditiru di seluruh negeri lain di Malaysia dan negara-negara lain di Asia (Alexander Ablaza, 2017).

2.4.3 Bas Elektrik

Pada tahun 2015, Melaka bermula dengan dua buah bas elektrik yang beroperasi di sekitar Tapak Warisan Dunia UNESCO di Bandar Hilir. Pengerusi Jawatankuasa Pengangkutan dan Pemulihan Projek Negeri, Datuk Lim Ban Hong berkata perkhidmatan bas 'hop-on-hop-off' akan beroperasi dengan sistem tiket satu harga. Ia menjadi bas elektrik pertama yang digunakan di Malaysia di jalan raya awam dan dipercayai bahawa penggunaannya dapat membantu mengurangkan kesesakan lalu lintas, pencemaran udara dan bunyi. Perkhidmatan bas elektrik ini beroperasi di bawah syarikat subsidiari kerajaan negeri. Lim berkata kedua-dua bas itu ialah antara 40 bas elektrik yang dijangka beroperasi sepenuhnya di seluruh negeri Melaka pada akhir tahun 2016. Negeri ini menerima 38 buah bas elektrik lagi dari Perbadanan Industri Automotif Shanghai 'Shanghai Automotive Industry Corporation' di China secara berperingkat dari awal tahun 2016. Lim berkata bas yang dicas boleh bergerak sejauh 180km dan baterinya akan mengambil masa 100 minit untuk dicas semula. Ia boleh bergerak dengan kelajuan maksimum 76km sejam. Bas 33 tempat duduk ini mempunyai satu tempat duduk untuk orang kurang upaya dan juga dilengkapi dengan sembilan kamera CCTV. Lim berkata stesen pengisian elektrik telah dibina di Terminal Bas Melaka Sentral untuk bas elektrik (<https://www.thestar.com.my>).

3. Kesimpulan

Hasil yang berpotensi daripada kajian ini akan membantu kerajaan tempatan, terutama kerajaan tempatan Melaka untuk mengatasi tentangan yang dihadapi oleh pembangunan Bandar Hijau dengan menggunakan RE sebagai program utamanya. Tambahan pula, langkah proaktif perlu diambil dalam kalangan agensi bukan organisasi dan juga orang ramai untuk memastikan pembangunan RE berlangsung dengan pantas. Kerajaan tempatan Melaka mesti mempunyai inisiatif atau teknik kreatif untuk menyampaikan maklumat untuk kesedaran masyarakat (Islam et al., 2009). Selanjutnya, kecekapan dan keberkesanan program RE akan meningkatkan kelestarian alam. Pengurangan bahan bakar fosil sebagai sumber tenaga utama dalam perindustrian akan mengurangkan tahap pencemaran udara (Ahmad et al., 2016). Selain itu, ia memainkan peranan utama dalam penipisan kesan rumah hijau dengan mengubah sistem tenaga terutamanya mengubahnya menjadi sistem elektrik kerana elektrik ialah kuasa utama bagi semua aktiviti yang berlaku dan menyebabkan pembebasan karbon dioksida (Abdel Wahab et al., 2018).

4. Pengiktirafan

Penulis ingin mengiktiraf sokongan kewangan daripada Kementerian Pengajian Tinggi, Malaysia di bawah Skim Geran Penyelidikan Fundamental.

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HUMAN RESOURCE MANAGEMENT PRACTICES TRANSFER IN MULTINATIONAL INDIAN COMPANIES IN BANGKOK

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Abstract: *This article deals with the transfer of human resource management (HRM) practices by multinational companies (MNCs) to overseas subsidiaries. By studying the factors that come from the cultural and institutional framework of the host country that affects this transfer Using information gathered from MNC's subsidiaries located in many countries and different in local culture, we examine the level of HRM practices in MNC's subsidiaries that are similar to local practices. Empirical studies have been done on subsidiaries to adjust their HRM practices at a very low and sometimes level. Although some practices are different especially the practices that are not consistent with the culture of each country, or contrary to the rules of low and high level of transfer, depending on the response and the area Multinational companies in each country cannot clearly determine their direction. And cannot explain accurately enough about the nature of the operation. But in reality, multinational companies tend to use various strategies to create appropriate, even if the subsidiaries have the same size, cannot be the same if in different areas of culture.*

Keywords: Multinational corporations, human resource management.

1. Introduction

The role of import and export of human resource management (HRM) in Asia countries practices in parent multinational companies (MNCs) is critical in understanding international human resource management (Mary Mathew and Harish C. Jain, 2015) HRM practice quality of multinational companies in today's world that is growing and has more advanced technology than in the past decades (Mahajan J.P. & Reeta 2016). All those Human Resources Try to create an ideal With multinational companies Want to create the most fit (Patrick O'Meara, Howard Mehlinger, 2000). Study of past stories Therefore must consider the organizational structure Different places are considered important factors for every company. Many companies that work highly trying to study these stories Most of the parent companies have influence. And control the delivery by playing an important role to the subsidiary Both in determining various levels of work (Gary Rees, Paul Smith 2017) Because in the past few decades Multinational corporations are faced with many additional problems. Both in terms of the competitive environment Stepping into free trade (Franklin R. Root. 1992) Research study To discover new approaches To be like creating a culture Formed In the regional pattern of the world This time (Elvire Meier-Comte. 2012) Foreign investment has increased, both in companies with many countries from developing countries to meet the needs of consumers. (M. Sornarajah .2010) Human resource development is a policy that many leading companies have to develop to be an important mechanism to step into excellence in

order to coordinate and control international operations for efficiency. Highest image (Adam Weintrit, Tomasz Neumann .2016).

This research article can provide academic support. The operation of agencies involved with multinational companies And create a relationship with those in the future to spare their own plans to work in multinational companies to prepare them for future work learning

2. Factors Affecting Management

When the world entered the era of globalization Business speculation is of interest to those. Merchants, businessmen trying to seek opportunities In each country, there will be differences depending on the investment sector in accordance with the best practice guidelines. In order to meet the effective international management model (Kaushik Basu ,2010) One of the important contents of this article, a multinational corporation is what the parent company, their host country, has served as a policy forward to Local companies compared to their practices similar to parents trying to deliver standards around the world. Multinational corporations: ethnocentric, polycentric, and global. According to those sociology principles, the management of foreign affiliates of transnational corporations may resemble the home country of the MNC (ethnocentric), able to follow the local practices of the host country. (Polycentric) or comply with global standards (PhilipM.Rosenzweig*andNitinNohria.1994)

In the direction of the world economy now Still has basic characteristics caused by international economic education guidelines (J. Nyilas 1982). In different business sectors The result is a competition in the production of products. Operational. strategy In order for the company to meet its goals Or success On the international stage (P. Stimpson, Al. Farquharson, 2015) Current Multinational companies that have established production bases or operations in foreign countries tend to maintain policies that are consistent with their parent companies in the country Working under pressure to benefit the global coordination company and must work to meet the local differences (United Nations. Economic and Social Commission for Asia and the Pacific.,2001) In that region Because it is considered that stepping into a different work in the country is a challenge that must be faced with creating a new working base (Margaret Foegen Karsten 2016).

3. Important Factors in Policy Transfer

The transfer of knowledge that occurred between the agencies from the parent company As in the case of companies from the United States of America. Executive work processes that cover every step By starting from learning And step into the real process of transferring knowledge to advance to use For overseas companies to receive (Diego A. Vazquez-Brust.2014) Literary studies The success stories are considered as a transfer process that is important in the case of studying the context of MNC multinational corporations, because everything is like a sphere. Operating principles IR/HRM (Bengt-Åke Lundvall, K.J. Joseph, Cristina Chaminade, Jan Vang.2009).

The efficient operation of the juristic person holding the water in policy formulation (OECD.2001) Superior policy implementation for better performance results (David E. Hussey .1998) Because of factors in foreign investment, sometimes using high investment funds Working in accordance with the local culture is a challenge because it is like having to use the potential to compete with the high side. Companies that create understanding with the area And embracing the organizational values of work According to human resources Human resource scholars tend to discuss Human resource management policy will be transferred because it is believed that the management of the parent company Is the basis for the management advantage of the subsidiary company Because in each competition with the competition company is important to the success that will occur in the subsidiary Daniel Wintersberger(2017)

Although some things will show significant management fundamentals For the purpose of superior performance In the operation because the culture in the mother country is like trying to adjust the working process of the employees in that local area. To understand and conform Because the transfer is like a challenge (Robert Fitzgerald, Chris Rowley,2016).

Point in the future direction Determining business costs, profits is a factor in operations. Opening an offshore company to make sales and growth, but sometimes the policy adjustment for survival that may affect the employee selection system as a result of the persistence of the state. These incentives, corporate awards, and understanding can enable employees to continue to work for the company. Because it is considered an important factor because the policy transfer is a concept of human resource management The parent company may be a developed country to open multinational companies in developing countries. Sometimes policy transfer is necessary to adjust for consistency in some countries or places. (Anne Tempel, 2001) Transfer process in this section Some companies have proposed a framework that tries to identify differences that sometimes influence factors directly from the transfer. Principles of human resource management In order to set the policy according to the practice guidelines Of multinational companies Systematic review work to the subsidiaries in each country (Seema Sanghi,2017).

Study of human resource management literature Have developed different methods Because going to a foreign company, the mother country may come from the country. Developing or developing And the part of the country to be invested may be Developing or developing In this context, past diversity is often an interesting lesson for future generations of investors. Analytical studies explain social institutions Historical evolution study Of that country How to create a role in different cultures to create stability Is like the main line that will create understanding Local nature Organizational behavior, human behavior, economic structure In the process of human resource management Dawn D. Boyer (2017).

Education in cultural, social institutions, such as before the Second World War, Japan conducted research. (Lance Cole. 2015) Cultural Social institutions in the South East Asia region Before the landing, the Strait of Malaga had conducted a secondary research before pushing the military in the war. Education in all cases Is considered a literary achievement in the past Because of social and cultural institutions Is like the two main factors in the operation to achieve future success.

4. Transfer of the Policy Affects Social and Cultural Institutes

From the study on the viewpoint of host country including theory, text, research, working variables, the study on unique characteristic of institute, and the study on management model take local influence into consideration and understand the practice of managing oversea employees effectively (Cox, A.2014)⁵

Sometimes MNCs has been planted with the management practice from their headquarters who think in a context of home country environment and therefore reflect in the organization characteristics of such MNCs which has influence in determining the direction internationally. This is a general philosophy which is important for the headquarter to conduct a study on human resource management. Therefore, ethnocentricity and polycentrism are viewed as characteristics of MNCs. For example, Japanese companies tend to believe in ethnicity more than those from Europe. However, international standard of procedures to achieve the company's goals are not different (Anne-WilHarzing, Joris Van Ruysseveldt (2004)⁶. The viewpoint of home country has influence on the investment in host country. Operation according to human resource management policy and in the practice toward MNCs, subsidiaries, and variables include business characteristic which seems to reflect cultural factor and superior social influence by motivation from headquarter and seems to be one of the challenges in human resource management in a company. Designing broad-minded and the best practice in home country and in host countries. Following local culture is sometimes easier than the policy from headquarters depending on rationality.

Sometimes MNCs are prevented from transferring operational practices from home country to new environment maybe through regulations or specifically strict control which may occur in a nationalist host country (Whitley, Richard.1992). Sometimes MNCs use local resources by recruiting personnel who are expert in local culture and marketing in order to prevent any loss resulting from misunderstanding of local thinking (Edwards, G. R. ; Lucas, R. J. ; Johnson, M. R.. 1993). Transfer of human resource management practice is to deal with two countries. It is one of the steps for world economic development. Entering into investment in different countries can link manufacturing process and enhance bilateral learning which leads comparative strength (Elger, T. and Smith, C. 1994)

Investment by MNCs enables us to realize that business operation relies on human resource management. Transfer of business from one place to another makes us aware of strength and weakness of such country.

In economic point of view, local administration is a mechanism to spread out the country's policy. Pursuing capitalism economy in business in other sector since integrated companies that will be successful and will yield good result for all factors. Management style that will lead to achievement in transfer to subsidiaries located in other countries. Home country practice can be applied in a situation where it is more appropriate than to follow the host country practice. Home country can be in power for management and it implies relationship of the company's economic power and the subsidiaries (Olga Tregaskis2013).

5. Study of Industrial Standard Level in the Country

Level of industrial standard in each country is different and the policy of each country in capitalism economy depends on manufacturing and consumption and both factors will keep on going. MNCs will face challenges in different aspects that they have to deal with. Subsidiaries in each country will have to deal with different culture since culture is the most significant factor in relying on local resources. MNCs will use more or less local materials. Learning local culture is most important when working in different environment, trade law, goods warrantee, competition, middlemen, or different types of salesperson (Zahira Hobaya. 2015).

Subsidiaries entering into industrialized world indicate that the world needs interdependence as headquarter needs local assistance for further development of complete manufacturing while sustaining quality and appropriate cost. Supports from headquarter in other aspects for transfer of human resource management practice with an influence of headquarter can assist the company to perform better. For example, European, Japanese, and Korean companies will have different organizational value. The employees will work in a different style, but eventually the result is the highest manufacturing efficiency.

6. Significant Factors in the Operation of MNCs

MNCs' most affecting factor on human resource management practice includes international business strategy and management style from past to present that the subsidiaries hold to. First, for international business strategy, building the basis for human resource relation is a significant factor that will guide strategic business management and human resource management. Operating according to policy choices may include human resource problems while comparing to basis of strategic management, finance, production technology. Something in the local area is not perfectly designed to fit the needs, therefore preparation of different factors of the company is continually significant and challenging.

Management heritage from headquarter sometimes is intangible but more precise. Model of management to pursue depends on various aspects including the investor, local price, value, strong cultural belief of social system in that country, internationalization, nationalism, and socialism. This research study demonstrates that high level management's confidence in strategic role believe that in human resource management one needs to make itself like a laboratory in order to search for preciseness in the context since transfer of the practice needs understanding for working in such local environment. After an investment, an effort to understand the size and duration of investment have influence on human resource management policy so that it will match the size of the company.

Body of this article tries to assess the factors having influences on headquarters' culture and the local environment where the subsidiaries are established. Human resource management practice of MNCs has shown us the influence and difference of geographic area, cultural environment of host country, and following of headquarters' policies. From the research, today significant information acquired from learning MNCs context can help preparing employees, officer on duty, and investor to be ready to run the business.

While most foreign firms investing in Thailand were seasoned companies, often industry majors, case Indian company was a newly established firm with a highly decentralized managerial structure. The main owner, the mining investor Indian business, wanted to stay near Thailand and neighborhood capital markets. Some of the company's top officers were located there. It was however politically unacceptable in Thailand to place the entire head office in Bangkok. The managerial functions were therefore split between Bangkok and subsidiary the company's official domicile remained in the latter city MD, Indian company Bangkok (Interview Sathit Kumer).

In business history research, subsidiaries are often neglected. The implicit thinking is often that firms become multinationals by changing the location of some of their activities, retaining key functions at their home base. Scholars tend to assume that subsidiaries merely exploit the ownership advantages of their parent companies. But, as Geoffrey Jones has stated, this view greatly undervalues the importance of subsidiaries as firms, and their significance within multinationals (Jones, 2005a, p. 162).

7. Corporate Control and Subsidiary Indian Company in Bangkok

While most foreign firms investing in south east Asia were seasoned companies, often industry majors, financial was a newly established firm with a highly decentralized managerial structure. The main owner, the mining investor some Indian japan company, wanted to stay near Bangkok capital markets. Some of the company 'stop officers were located there. It was however politically unacceptable in Bangkok to place the entire head office in Thailand. The managerial functions were therefore split between Bangkok Thailand and India and the company's official domicile remained in the latter city

However, this Business History first India visit organizational pattern did not impede the company's development, quite the contrary; the decentralized model was both cheap and effective. some Indian company of course on its mother company for allocations of funds and for managerial. But the dependency cut both ways. The organizational plant and staff provided the competence that the company's owners and top management lacked. This was not a case where the subsidiary merely exploited the ownership advantages of its parent; it was just as much the other way round. The mother company and the subsidiary were mutually dependent.

It is therefore not very surprising that the subsidiary was given considerable autonomy. It had full operational control over the refining business and administered company relations with India host authorities. The subsidiary 'stop managers also made their voice heard with regard to overall development, the company's investment policy, sales, etc.

8. The Multinational Subsidiary and the Local Community in Thailand

There has not been much systematic research on how multinational companies adapt to – and interact with – host societies and local business systems. case studies TATA or Indorama has documented that India multinationals followed several different strategies in the south east Asia. Tata did much to blend in while Indo-rama basically continued its policy ways of doing business. If we look at Tata industrial in Bangkok, the Tata motor refinery was organized as a separate company with its own share capital and a board. This was required by Thailand law. The law required that the chairman and the majority of the board members had to be Indian. This article has explored the evolution of a subsidiary, the mutational company in Thailand case Indian company and human resource managements transfer policy

In order to understand the development of subsidiaries one must take the line of business into account. In the TATA industry, vertical integration was necessary. As indo-rama was a newly established business company the mother company not only continued operations in Tata, they were greatly expanded during the 2000 Tata found it planning to transfer and replicate this knowledge and production capacity in Thailand. The mother company thus came to depend on its far-away subsidiary. Aimed to determine and examine empirically HRM practices, the employment of which may help MNCs to overcome knowledge transfer barriers. From the previous research on MNC knowledge transfer it was concluded that among other things MNCs should develop employees' ability and motivation to absorb knowledge (T. Mahamud 2019).

9. Conclusion

Human resource management strategy for MNCs is still not precise whether in terms of human resource management, recruitment, motivation, and existence. MNCs in each country are not able to set their precise direction and to explain correctly about the nature of their operation. However, in reality MNCs tend to use different strategies which they think fit as well as various styles of operation which results from interrelationship between various organizations. Human resource management may be sensitive to pressure in adapting with the local though there are some similarities in some local areas. Local influence and headquarter influence are sometimes adjusted. Therefore, the significant thing that needs adjustment is to learn the difference and understand the application of transferred practice so that everything will be utilized in creating the ideas and dynamic change of the organization as well as further creativity.

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INSTRUCTIONAL LEADERSHIP AND RESILIENCY OF SCHOOL HEAD IN THE IMPLEMENTATION OF REMOTE LEARNING

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Abstract: *This study described the instructional leadership and resiliency of school heads in the implementation of remote learning. The study used the descriptive correlation type of research with questionnaire as the main research instrument. Respondents were 19 school heads and 152 teachers of the Non-Autonomous Secondary Schools from the Congressional District I. The statistical tools were frequency count, weighted mean and Pearson r for correlation. The findings revealed that school heads are mostly in their middle ages, all are married, dominated by female individual, masters' degree holder, had doctorate units, had 11 to 15 years of experience in administrative position and mostly were Principal I. The correlational part of the research design utilized to determine whether there are significant relationships that exist between the school head respondents' profile, their resiliency and implementation of remote learning. The null hypothesis stating the relationship between the profile variables of the school head respondents, their instructional leadership, their resiliency and their implementation of remote learning was accepted. The null hypotheses stating the relationship between the school head respondents' instructional leadership, their resiliency and their implementation of remote learning was accepted. All of the components of Instructional Leadership have a significant correlation with resiliency; however, leadership function is the only one component of instructional leadership that has significant correlation with learning modalities. The null hypotheses stating the relationship between the school head respondents' resiliency and their implementation of remote learning partly is rejected. School head respondents' resiliency has a significant relationship with learning modalities and practices used. The proposed intervention program contains the project descriptions objectives, strategies/ activities, persons involved, target period and expected output based on findings which when implemented may enhance the instructional leadership, resiliency of school heads.*

Keywords: challenges, remote learning, resiliency, school heads, instructional leadership.

1. Introduction

A resilient organization requires strong leadership that promotes cohesiveness and interdependence among teams. The school head's instructional leadership is crucial to the performance of a school's reform programs as well as the school's overall effectiveness. The school principal's primary duty is to ensure that all students learn and succeed. Focusing on learning and promoting collaboration among teachers and learning support staff, particularly in the implementation of remote learning, can help school leaders achieve this aim, especially in this time of adversity.

School leaders work in evolving and sometimes conflicting policy settings in order to influence a number of stakeholder groups and individuals in school reform processes. This tends to broaden and intensify their professional work and personal lives, putting their flexibility to the test. Resilience is a process of adaptation and development within a risky environment, not a state of being. In a world of change and confusion, resilient company leaders not only succeed, but also allow their organizations to prosper. How high-risk, low-income school leaders preserve their resilience, as well as the costs of doing so in improving and sustaining their rate of success at all.

Therefore, to ensure the effective delivery of quality basic education services for remote learning the researcher conducted a study regarding the instructional leadership and resiliency of school heads in the Division of Nueva Ecija, so as to improve the efficiency and effectiveness as well as to leverage the current practices among our school heads. In the process, a proposed program for the enhancement of the school heads' instructional leadership is recommended specifically to address what specific needs to be strengthened and required immediate intervention.

This study aimed to describe and assess the relationships of instructional leadership and resiliency of school heads to the implementation of remote learning. The study presents the profile of the school head-respondents, the instructional leadership of the school head-respondents in terms of; Leadership Function, Curriculum Implementation, Professional Development, Financial Budgeting and Management, Networking, Partnership and Community Relations. Describe the school head resiliency, the implementation of remote learning in terms of; Adherence to Basic Education Learning Continuity Plan, Learning modalities and practices employed, and Challenges. The significant relationship between the respondents' profile and: their instructional leadership; their resiliency; and implementation of remote learning. The significant relationship between instructional leadership and school heads' resiliency; and implementation of remote learning. And, the significant relationship between school heads' resiliency and their implementation of remote learning?

2. Literature Review

2.1 Instructional Leadership in the New Normal

Instructional leadership refers to a school heads ability to respond to changing circumstances. Nonetheless, due to the extraordinary events that occur in the globe, instructional leadership in this new normal has developed as one of a kind. Though they used to adjust in their day-to-day experiences as school heads, school heads think that these situations are unique and meaningful for them (Fleming & Millar, 2019). School heads were encouraged to become more digital in nature, particularly in terms of communicating with their teachers, students, stakeholders, and others.

In this new normal, however, instructional leader should be an effective instructional decision-maker, which means that a leader must be capable of understanding students' requirements and formulating the best or less defective judgments. Finally, an instructional leader is an excellent planner, observer and problem solver.

A successful decision comes from someone who thinks and acts properly, where initiative is crucial since no one wants to be caught off guard (Francisco, 2020). As a result, in this new normal, an instructional leader is a good leader who learns to do the ordinary things well, is not hesitant to act even when criticized, and is not hesitant to take on the impossible. Instructional leadership is becoming more important in this new normal because schools are facing challenging circumstances with increasingly stronger demands for accountability and fewer financial resources. Solving this conundrum will need joint efforts to create cost-effective solutions.
School Head's Resiliency

The current research conceptualizes a resilient leadership model with regard to the school system in the face of uncertainty and ambiguity based on the non-ideal circumstances impacting today's schools (Ozmusul, 2017). Resilient school leaders, on the other hand, can be described as putting forth a high degree of effort to address both internal and external challenges that the organization faces, as well as coming up with novel solutions despite the fact that the organization is confronted with numerous non-ideal situations.

Today's school leaders seem to be intellectually, emotionally, professionally, ethically, and physically resilient. Resilience is described as the ability to regain equilibrium after being exposed to a traumatic event or series of events. Resilience is not an end state of being, but rather a lifelong phase of incremental development in a risky environment. Individuals who are adaptive can respond to stress, rebound from setbacks, sustain a reasonably stable course of healthy functioning, harness resources to maintain well-being, and develop as a healthy adaptation to crisis.

Resilient leaders can never be satisfied with the status quo and should challenge themselves, “How can we improve?” on a regular basis. Leaders must be good observers and diagnosticians, able to analyze performance data, and able to inspire adaptive change in order to innovate. Resilience is the capacity to recover quickly from difficulties, it means psychological toughness. With the teachers being flexible in educational circumstances and issues with the students, they easily manage to be resilient. It is directly connected with well-being and job satisfaction. The teachers who are in the grip of burnout seem to be rigid, unwilling to deal with the educational issues with the students and inflexible in their decisions and thoughts towards the happenings.

2.2 Remote Learning

More than 9 million students in both private and public schools had enrolled for the 2020-2021 academic year online. The 9 million turnout exceeded Education Secretary Leonor Briones' estimates. Secretary Briones expected many Filipino families with school-aged children to defer enrollment during the COVID-19 public health emergency, presumably because DepEd was aware of the technical, financial, and other differences among the millions of Filipino families with school-age children. Because of these challenges, around 5 million students are unlikely to enroll. Some instructors, as reported in the press, are equally unprepared, either because they don't have or can't afford the necessary gear, or because they are just as technologically inept as their kids.

The most common kind of distance learning is modular learning. In the Philippines, this learning modality is currently used by all public schools because according to a survey conducted by the Department of Education (DepEd), learning through printed and digital modules emerged as the most preferred distance learning method of parents with children who are enrolled this academic year (Bernardo 2020).

Because education is no longer confined to the classroom, parents have become educators' collaborators. As home facilitators, parents play a critical role. Their primary role in modular learning is to establish a connection and guide the child. According to the Department of Education (DepEd), parents and guardians perform the various roles in Modular Learning such as Module-ator, Bundy-clock, and as Home Innovator. As a Module-ator, they are the ones to get and submit the printed SelfLearning Modules (SLMs) from and to schools or barangay halls at the beginning and end of the week, depending on the agreement between the parents and the school.

The current literature base and empirical evidences presented above, on instructional leadership and resiliency of school heads primarily focus on the face to face school site-based setting, despite evidence that instructional leadership and resiliency may differ significantly in a digital context or distance learning environment (Lui, Algina, Cavanaugh, & Dawson, 2010).

Instructional leaders go beyond the traditional role of school administrators and spend a lot more time focusing on developing knowledge and implementation of the curriculum, as well as instruction and assessment (Jita, 2010). Instructional leadership coexists in an integrated form of leadership, the influence on school performance, measured by the quality of its pedagogy and the achievement of its students, is substantial.

Despite the volume of published research about the instructional leadership and seems little have known about resiliency in the implementation of remote learning most specifically in time of adversary in the country. This study seeks to determine and analyze the instructional leadership style of school head as well as the resiliency in the implementation of remote learning in the Congressional District I of Nueva Ecija.

3. Discussion

3.1 Profile of the Respondents

The school head respondents are divided into three age groups: 30 to 39 years old, 40 to 49 years old, and 50 years old and up. Eight of the school heads (42.11 percent) were between the ages of 50 years old above, followed by seven (36.84 percent) between the ages of 40 to 49 years old, and four (21.05%) between the ages of 30 to 39 years old. The age bracket of 30 to 39 years old had the lowest percentage of 21.05 percent. This suggests that the majority of the school head-respondents were in the 50-year-old and older age group. This indicates that the majority of them are in their middle age.

Individuals' civil status may include being single, married, widowed, annulled, or divorced. One hundred percent of the school heads-respondents population were married, as seen in the table above. Guiab and Ganal (2014) discovered the same findings in their research on the Demographic Characteristics of Public Elementary and Secondary School Heads and Related Problems.

The highest educational attainment of the school head. The highest level of education achieved by the school head-respondents is referred to as educational attainment. The findings revealed that the majority of school principals sought advanced degrees for professional growth and advancement, which would benefit them in their current role and in the future, regardless of their degree of specialization.

Doctoral Units earner had the highest percentage of 42.11 percent, while MA/MS graduates had the percentage of 26.32 percent, followed by Doctoral Degree graduates of 21.05 percent, MA Units earner had the lowest percentage of 10.53 percent. It can be concluded that the survey respondents' lowest educational level is MA Units earner. This means that all of the school heads-respondents meet the educational requirements for their positions as outlined in DepEd Order 39 series of 2007.

In the group of years of experience, more than fifty percent, eleven (57.89%) of the school head-respondents already had 11 to 15 years' experience in their role, followed by five school head (26.32%) had 6 to 10 years' experience in the Principal position while 15.79 % or three school heads had 5 years or less experience, as seen in Table 2. This suggests that more than half of the people in the study have eleven to fifteen years of experience overseeing public schools. As a result, they seem to have sufficient experience leading public secondary schools as school heads.

School heads' length of leadership experience, age, highest educational achievement, and average family income in finances, according to Secong (2014), there are unfavorable relationships and do not reflect substantial connectedness to the school's management style heads.

School Head can be Office-In-Charge, Teacher-In-Charge, Head Teachers and Principals. Head Teacher III and Principal I positions were held by 31.58% of the school heads, while Teacher-In-Charge, Head Teacher II and School Principal II positions were held by 10.53% and 5.26 percent of the school heads were Head Teacher I, respectively. Almost half of the school leaders who answered are in the Teacher-in-Charge, Head Teacher III, or Principal I position. As a result, the vast majority of them are inexperienced in their respective positions. Secondary school principals, it can also be deduced, have a deep incentive to advance and be promoted to higher ranks.

3.2 Instructional Leadership

In this study, instructional leadership is described as follows: leadership function, curriculum implementation, professional development, and financial budgeting management and networking, and community relations:

Leadership Functions as “Excellent”, which had the overall weighted mean of 3.72. Likewise, school heads assessed themselves as “Excellent” in leadership functions affirmed in weighted means of 3.77 and 3.66, respectively, verbally described as “Excellent”. The highest weighted mean of 3.85 assessed by the school heads themselves and teacher validators is item number ten which states “As a School head I mentor my subordinates on how to enhance and level up their competencies”, followed by item number seven, 3.77 verbally described as “Excellent” which states “As a School Head I provide my subordinates with resource needed to carry out their roles and responsibilities effectively”, followed by item number eight and nine, 3.76 verbally described as “Excellent” which states “As a School Head I observe subordinates while performing their duties and provide assistance readily when needed” and “As a School Head I Make suggestions to improve my subordinates’ individual outputs”. The lowest average response is item number one which state “As a School head I communicate the vision, mission and strategic goals of the organization” with an average mean of 3.62 verbally describes as “Excellent”.

School heads, as key leaders in the country’s education system, are indispensable in achieving the government’s aim to provide quality basic education. Republic Act No. 9155, or the Governance of Basic Education Act of 2001, defines a school head as “a person responsible for administrative and instructional supervision of a school or cluster of schools” (Section 4).

School heads have the authority, responsibility and accountability for taking care of people in schools (people effectiveness) while maximizing organizational performance and health (school effectiveness) by setting the direction of schools, managing their systems and processes, promoting quality teaching and learning, nurturing themselves and others, and engaging stakeholders in initiatives towards the improvement of school communities. (Philippine Professional Standards for School Heads)

Every good school relies on effective leadership. This highlights the importance of strong school leaders working together to develop a vision and an environment that allows teachers, non-teaching staff, and students to achieve their full potential. They adopt the “owning,” “co-owning,” and “co-creating” leadership models and system of transformational leadership. They use a data base and study of best practices in education, culture, and the country to be attentive and constructive in improving schools in order to better prepare children for the future (cited from Deped Order No. 32, s2010 National Competency Based Standards for School Heads).

3.3 Curriculum Implementation

Curriculum implementation of the school head respondents. It earned an overall mean of 3.65, which was described as "Excellent" verbally (based on combined feedback from school head respondents and teacher-validators). Likewise, both respondents assessed the performance of the school heads as "Excellent" in curriculum implementation. These had weighted means of 3.37 and 3.59, respectively. The highest weighted mean was item number ten with an average mean of 3.71 verbally described as "Excellent" which states "As a School Head I empower my subordinates to make decisions that improve teaching and learning", followed by item number eight with an average mean of 3.70 verbally described as "Excellent" which states "As a School Head I Initiate plans to improve literacy/numeracy that supports strategies ranging from intervention for struggling readers", it was followed by item number four with an average mean of 3.69 verbally described as "Excellent" which states "As a School Head I make sure that daily lessons are aligned to the competencies required by each subject and grade level". The lowest average mean on this category was item number one with an average mean of 3.59 verbally described as "Excellent" which states "As a School Head I ensure that my subordinates demonstrate an understanding of the content and performance standards in their respective subject". The highest Results mean that the two respondent groups were satisfied in the curriculum implementation of the school heads. This finding supports by the study of Scruggs et al., 2011 which states that curriculum implementation involved an intentional, multi-layer process of learning how best to support teachers' curricular practices.

As a result of educational changes, there is a pressing need to place a strong focus on the growth of instructional leadership skills. This refers to the activities that school leaders take or assign to others in the areas of instructional leadership, curriculum implementation (e.g., evaluation for learning, production and implementation), instructional supervision, and technical assistance in order to facilitate effective teaching and high levels of learning among pupils/students. (cited from Deped Order No. 32, s2010 National Competency Based Standards for School Heads).

3.4 Professional Development

Professional development. It earned an overall weighted mean of 3.62 verbally described as "Excellent". Both respondents assessed the professional development of the school head as "Excellent" with weighted means of 3.67 and 3.56 respectively. The highest weighted mean was item number three, 3.68 verbally described as "Excellent" which states "As a school head I engage in professional development activities such as seminars, short-online courses and management trainings", followed by item number five, 3.64 verbally described as "Excellent" which states "As a school head I recognize good performance and appreciates subordinates contribution to school improvement", followed by item number nine, 3.63 verbally described as "Excellent" which states "As a school head I promote the culture of excellence, encouraging teachers to engage in innovative projects to facilitate process related teaching". The lowest weighted mean under professional development was item number six, 3.52 verbally described as "Excellent" which states "As a School Head I give feedback and advice to help subordinates improve performance and be successful". The results revealed that engagement in teacher professional development activities by school administrators has a positive impact on teacher capacity, teachers to put new knowledge and methods into practice and draw on them by the school heads. It also revealed a positive impact on the leaders' own professional development.

There is little doubt that school leaders may have a significant influence on teachers' capacity to enact professional learning in their classrooms, and must engage themselves on professional development according to Kershner, Pedder, and Doddington (2013), and it is critical that school leaders support, encourage, and recognize teachers who take the initiative to engage in professional learning (Goldsmith, Doerr, & Lewis, 2014; Lachance & Confrey, 2003).

Effective school leaders help others grow their strengths and talents. This encompasses the creation and support of a learning environment that hires teachers based on Philippine Professional Standards for Teacher and encourages staff growth and development through Results-Based Performance Management System (RPMS) and School Plan for Professional Development (SPPD). They value individual skills and delegate responsibility and authority for particular duties, as well as evaluating employees against competency requirements. (cited from Deped Order No. 32, s2010 National Competency Based Standards for School Heads).

3.5 Financial Budgeting Management

Financial budgeting management obtained an overall weighted mean of 3.66 which is verbally described as “Excellent” from the joint response of school heads and teacher validator. The school head and the teachers’ average response on this category was both 3.66 verbally described as “Excellent”. The highest average mean is item number nine, 3.73 verbally described as “Excellent” which states “As a school head I manage school resources in accordance with policies and accounting and auditing rules and regulations and other pertinent guidelines”, followed by item number ten, 3.72 verbally described as “Excellent” which states “As a School Head I generate and mobilize financial resources”, followed by item number five and six, 3.70 verbally described as “Excellent” which states “As a School Head I maintain transparency of records and expenses of school” and “As a School Head I enforce rules and regulation in allowable and authorized school liquidation.” The lowest mean on this category is 3.55 also verbally described as “Excellent” which states “As a School Head I account for school funds and budget”. The results showed that a school head’s responsibility to handle financial resources in order to assist teachers in working with stakeholders and practicing instructional competencies in order to meet the ever-changing needs of the community in general with respect to defined roles in the context of the school and following the guidelines, it proves that they have excellent financial management skills.

This section discusses the important position that school leaders play in implementing and tracking their school's development plan/annual implementation plan. They are in charge of generating, mobilizing, and deploying funds and other services. They also use information, communication, and technology (ICT) in their day-to-day operations management. (cited from Deped Order No. 32, s2010 National Competency Based Standards for School Heads).

3.6 Networking, Partnership and Community Relation

The data on networking, partnership and community relations, the overall weighted mean is 3.69. School heads had “excellent” networking, partnership, and community relations, according to their self-assessment, with a 3.77 average weighted mean, which was validated by the teachers, who gave them a 3.62 average weighted mean. The highest weighted mean under this category was 3.76 verbally described as “Excellent” which states “As a School Head I promote the image of the school through school summit, cultural shows, learners’ project, exhibits and other related programs that improve its partnership to other organization”, followed by item number nine 3.73 verbally described as “Excellent” which states “As a School Head I establish sustainable linkages/partnership with other agencies”, followed by item number ten 3.72 verbally described as “Excellent” which states “As a School Head I multi-stakeholders in crafting programs and projects for our school”. The lowest average mean was item number one and four 3.63 verbally described as “Excellent”, which states “As a School Head I benchmark other schools’ best practices to improve mine” and “As a School Head I actively work with other schools and organizations to achieve own school goals faster and more economically”. Finding on networking, partnership and community relations showed partnerships between schools, families, and communities have been shown to improve student achievement and well-being.

As cited, community engagement in education is a good idea; developing partnerships with the lead of the school heads foster community participation (Schutz,2010); Some academics emphasize the importance of strong relations between schools and communities in order for education to meet society's needs (Crowson & Boyd, 2011).

In order to achieve universal engagement, completion, and functional literacy, effective school leaders collaborate with the community to make joint decisions. This domain addresses the role of parents and other stakeholders in improving student success. This also entails the task of maintaining the school's positive image and building long-term connections with other sectors. (cited from Deped Order No. 32, s2010 National Competency Based Standards for School Heads).

3.7 School Head’s Resiliency

Resilience is defined as the dynamic process whereby individuals exhibit positive behavioral adaptations despite significant adversity or trauma. The data on school heads resiliency, with an overall weighted mean of 3.71, school heads’ rate themselves in this category with an overall weighted mean of 3.76 and their teachers validate this rating by giving them 3.67, all responses verbally described as “Very High”. The highest average mean is item number six 3.83 which states “As a school head I have the ability to with stand hardship”. The lowest average mean is item number four and five 3.65 which states “As a school head I have the ability to implement change” and “As a school head I have the ability to overcome adversity”. All the average mean that state earlier was verbally describes as “Very High”.

As cited, "Happiness and moral responsibility are inextricably linked.” Leaders who choose persistence over defeat gain not only the energy to keep progress going, but also the joy of doing positive work that helps students. (Allison & Reeves, 2011).

According to Bosworth and Earthman (2012), school administrators' opinions of resilience influenced their decision to undertake resilience-oriented initiatives and activities. The Resilience of school leaders is an important organizing factor for creating school programs and settings. School heads resilience concepts and theoretical frameworks happen to intersect with widely established educational leadership frameworks and ideas (Theoharis, 2011; Wagner et al., 2012). Increased access to core learning, enhanced core learning, and the fostering of an environment of belonging were mentioned as ways to improve student success. The strong resilience of school head is a strong tool for comprehending and implementing meaningful, fair, and fair school change, and it is based on ideas comparable to those established in the resilience construct.

3.8 Adherence to Basic Education Learning Continuity Plan

The data on School heads adherence to Basic Learning Continuity Plan, It had an overall weighted mean of 3.74 verbally described as “Agree”. It had an average weighted mean of 3.75 and 3.62, respectively from the joint responses of school heads and teachers verbally described as “Agree” showing that school heads took responsibility on compliance to BE-LCP and dedicated to promote learning continuity of the school by finding solutions to the issue taking decisions in terms of the best interests of the learners, the staff and the school in general. The highest mean on this category was item number two and item number five 3.75 verbally described as “Agree” which states “As a School Head I frames the school’s goal in terms of staff responsibilities for meeting them following the work arrangement as advice by the Inter-Agency Task Force” and “As a School Head I ensures that school’s academic goals use in making curricular decisions with teachers are inclined with LCP”. The lowest mean was item number three which states “As a School Head, I follow the schedule of all activities in the LCP and most essential learning competencies are designed with the modality that is applicable in the school”.

BE-LCP covers the essential requirements of education in the time of COVID19, e.g., most essential learning competencies, multiple learning delivery modalities for teachers, school leaders and learners, required health standards in schools and workplaces, and special activities like Brigada Eskwela, Oplan Balik Eskwela, and partnerships.

A learning continuity plan seeks to ensure that student’ learning progresses even amidst disasters such as natural calamities, storms, fires, and pandemics. This plan overcomes obstacles created by the disasters through innovative means of teaching and learning, keeping students on track with their courses. With today’s COVID-19 pandemic, the main obstacle that has to be overcome is the need for social distancing, making face-toface interaction impossible. Therefore, any learning continuity plan to be implemented today has to account for this limitation.

3.9 Learning Modalities and Practices Used

This refers to a learning delivery modality where learning takes place between the teacher and the learners who are geographically remote from each other during instruction. This modality has three types: Modular Distance Learning (MDL), Online Distance Learning (ODL), and TV/Radio-Based Instruction.

The overall weighted mean on this category was 3.67 verbally described as “Agree”, teachers and school heads both “Agree” on learning modalities and practices used as presented in weighted means of 3.74 and 3.69, respectively. The highest mean was item number two 3.80 verbally described as “Agree” which states “As a School Head I implements learning continuity using various modalities” and the lowest mean was item number five 3.67 verbally described as “Agree” which states “As a School Head I readjusts schedule activities depending on the availability of materials and safety of the teachers”. cThe BE-LCP aims to ensure the health, safety, and well-being of the learners, teachers, and personnel in the time of COVID-19, while finding ways for education to continue amidst the crisis. In particular, the BE-LCP has been designed with a legal framework responsive to the “new normal,” keeping in mind the constitutional mandate to uphold the right of all citizens to quality education at all times.

In line with this, the learning delivery modalities that schools can adopt may be one or a combination of the following, depending on the local health conditions, the availability of resources, and the particular context of the learners in the school or locality: Face to face, blended learning, modular, radio based instructions, on line learning. (Basic Education Learning Continuity Plan).

3.10 Challenges of Remote Learning

The overall weighted mean on this category was 3.36 verbally described as “Agree”. The highest mean was item number 1 3.56 verbally described as “Agree” which stated “Availability of teachers and staff due to alternative work arrangement is challenging”, the lowest mean was item number three 3.69 verbally described as “Agree”. which stated “Difficulty in assessing work accomplishment of teachers”.

As cited the great number of activities in each module is one of the main problems that emerged in the implementation of Modular Distance Learning. The Department of Education should consider this problem, reduce the activities, and take out the unnecessary topics so that mastery will be attained as much as possible. As what some of the parents said, the lesser the better. One of the concerns of the students is that they do not have enough time to answer all the modules within a week. Therefore, if DepEd cannot extend the duration of accomplishing the modules, they must lessen the activities. We all know that mistakes cannot be avoided at times. Thus, teachers should re-evaluate the modules, and they must make sure that all the lessons or activities are appropriate to the needs of the learners. The parents, as well as the students, are right; the instructions in every exercise must be clear enough for the learners to understand. (Quinones, M. T. ,2020). The topics must be simplified, and teachers must give more examples. Moreover, all the printed pictures in the modules should be clear. The cases of COVID19 in the Philippines are still in great number, so face to face learning is not yet possible.

However, the researchers think that Blended Learning is also possible for places that are not infected by the virus. For the students who still cannot access the internet, they will be given special consideration by home visitation as an example. Aside from text and call, social media particularly on messenger is one of the most used modes of communication between teachers, parents, and students. Therefore, teachers are recommended to be active online most of the time. They must be able to address the sentiments of some parents and students, which is to be patient enough in attending to the needs and to respond to the queries immediately with regards to learning. The Department of Education and the government must collaborate together towards the success of Philippine Educational System despite the COVID-19 pandemic. It is imperative that every school must be provided with support and enough funds. The Department of Education should give autonomy and freedom to teachers in every school to do their own modules. However, the modules must be validated for the quality assurance and the progress will be monitored.

4. Conclusion

Based on the findings, the researcher found that most school head-respondents were categorized in the middle age structure, female, married and had a masters' degree. And manifest an excellent leadership function. Regarding school heads resiliency, they have a very high resilience level towards instructional leadership and implementation of remote learning. School heads took responsibility on compliance to BE-LCP and dedicated to promote learning continuity of the school by finding solutions to the issue taking decisions in terms of the best interests of the learners, the staff and the school in general.

There is no significant relationship between the profile of the school head respondents, their instructional leadership, their resiliency and their implementation of remote learning so it is partly rejected. However professional development is significantly correlated with sex, results showed that women was more engage in professional development than men. The school head respondents' instructional leadership, their resiliency and their implementation of remote learning has no significant relationship so it was rejected.

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INVESTIGATING THE POSSIBLE EFFECT OF FINANCIAL INNOVATION ON MONEY DEMAND IN RUSSIA VIA GDP TRANSMISSION CHANNEL

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Abstract: *This paper employs a VECM methodology in order to represent the monetary transmission process of Russia. We use a conventional money demand function with GDP (growth domestic product) and IR (interest rate) as the conventional determinants of the money demand (MD) which is enriched with a proxy for financial innovation (FI, the sum of the value of transactions at automated teller machines and point-of-sales terminals). The variables are all in real terms. This model is then estimated for data from 1995 to 2016. Two VECM model are applied to investigate if there is a GDP transmission channel. The first VECM tests if FI affects GDP and the second VECM examines whether GDP influences MD. Wald tests from these VECM models indicate that GDP cannot play a role as a transmission channel for the effect of financial innovation. This result in further confirmed using variance decomposition analysis and impulse response function obtained from VECMs and finally using Granger causality test.*

Keywords: Russia, Financial Innovation, Money Demand, Transmission Channel, VECM, Variance Decomposition, Granger Causality.

1. Introduction

This paper presents a first attempt of an empirical analysis of GDP as the transmission channel for the Russian economy closing a gap in the literature on the transmission process which has never been explored. Methodologically the paper employs VECM model in order to illustrate the properties of the GDP transmission channel.

Empirical evidence show that financial innovation improves the efficiency of the economy and enhance economic growth. Therefore, we aim at finding out if financial innovation through its effect on GDP can affect the demand for money indirectly.

The paper draws some conclusions how exploring the link between new payment technologies and in more general term, financial innovation could further improve the possibilities for economic research to contribute effectively to the development of a better understanding of macroeconomic events in Russia.

The paper is organized as follows. First, we deliver some recent studies on the monetary transmission process in Russia. It is followed by outlining the analytic framework of the paper. The empirical model and the data definitions will also be provided. Next, we present the main results obtained from the estimated models and the interpretation of the results and finally, the paper will be concluded.

2. Literature Review

Several empirical studies using different variables and methods focused on the monetary policy in Russia and came to contradictory results.

Using the monetary base, inflation, the index of production of basic industries, and the real ruble-dollar exchange rate as variables, Vdovichenko and Voronina (2006) Assess monetary policy by applying generalized method of moments. They show that increased inflation and emission and the weakened real exchange rate of the ruble past the target level, forced the Bank of Russia to tighten monetary policy.

Using VEC model and the error correction vector, Vymyatnina (2006) analyzes the mechanisms of transmission of monetary policy in Russia over 1995-2004 and finds implicit evidence of the interest rate channel in Russia's monetary policy.

Drobyshevsky et al. (2008) analyzes transmission mechanisms in Russia during 1999-2007 using vector auto-regressions and micro-economic data from the balances of RF commercial banks and find evidence of three transmission channels namely the channel of unforeseen growth in prices, the bank lending channel, and the household wealth channel and conclude that an increase in interest rates in the interbank credit market leads to a decline in non-financial sector lending gains. Juurikkala et al. (2009) applied generalized method of moments (GMM) to quarterly data from banks in Russia from 2002 to 2013 to investigate the impact of monetary policy of the central bank on lending behavior of banks. They find evidence of the credit channel in Russia during that period. Using the Granger causality test, Leontieva (2013) finds that the volumes of bank lending is not affected by the refinancing rate, the bank deposit rate in the Bank of Russia, and repo transaction rates and the monetary base is the Granger cause for the volumes of lending to juridical persons.

By applying the generalized method of moments to quarterly data during 2002-2013, Salmanov, O. et.al (2015) recognized a statistically significant impact of the money supply, the monetary base, the interbank lending rate, and the refinancing rate verifying the existence of a bank lending channel in Russia.

3. Methodology

Vector Error Correction Model

A vector error correction (VEC) model is a restricted VAR designed for use with nonstationary series that are known to be cointegrated. You may test for cointegration using an estimated VAR object, Equation object estimated using nonstationary regression methods, or using a Group object. The VEC has cointegration relations built into the specification so that it restricts the long-run behavior of the endogenous variables to converge to their cointegrating relationships while allowing for short-run adjustment dynamics. The cointegration term is known as the error correction term since the deviation from long-run equilibrium is corrected gradually through a series of partial short-run adjustments (Engle & Granger, 1987).

Granger Causality

In order to determine if one time series is useful in forecasting another, a statistical hypothesis test called “the Granger causality test” is used (Granger, 1969). This test can test causality in economics by measuring the ability to predict the future values of a time series using prior values of another time series which is predictive causality (Diebold, 1998).

Impulse Response

An impulse response is the reaction of any dynamic system in response to some external change. It describes the reaction of the system as a function of time or possibly as a function of some other independent variable that parameterizes the dynamic behavior of the system.

Variance Decomposition of Forecast Errors

In order to capture the linear interdependencies among multiple time series, a stochastic process model called Vector autoregression (VAR) is used. These models allow for more than one evolving variable which therefore, is a generalization of the univariate autoregressive model (AR model). Each variable in a VAR model contains an equation explaining its evolution on the basis of its own lagged values, the lagged values of the other model variables, and an error term. Advantage of VAR models over structural models is that they require less knowledge about the forces influencing a variable. a list of variables is the only required prior knowledge. These variables need to be hypothesized to affect each other intertemporally.

Empirical model

We start the empirical estimation of money demand functions with introducing the long-run, log linear function that is of the form

$$\text{Log} \left(\frac{M_t^*}{P_t} \right) = \alpha + \beta_1 \log Y_t + \beta_2 R_t + \varepsilon_t$$

Desired stock of nominal money is denoted by M^* , P is the price index that we use to convert nominal balances to real balances, Y is the scale variable, and R is the opportunity cost variable. The conventional theory of money demand is misspecified due to ignoring the effects of financial innovation (Serletis, 2007).

The sum of the value of transactions at ATM and POS terminals (FI) is chosen as the proxy to estimate the effect of financial innovation (technology payments) on the demand for money in Russia. Therefore, we estimate a semi log-linear specification of the form:

$$\text{Log } MD_t = \beta_0 + \beta_1 \text{Log } GDP_t + \beta_2 IR_t + \beta_3 \text{Log } FI_t + e_t$$

Conventional Demand for Money Function mentioned above is the basis for this specification. We use a traditional specification of the conventional demand for money, where MD denotes currency in circulation, GDP denotes real gross domestic product, IR is the interest rate, FI is the sum of the value of transactions at ATM and POS terminals, and e_t is the error term. We then estimate a demand for money in the UK during 1995 - 2016. Data for MD, GDP and IR was collected from the official website of the World Bank and data for FI was obtained from the Bank for International Settlements.

Estimation

We first estimate empirical models of the money demand in Russia using Vector Error Correction Models (VECMs). In the first VECM, MD is regressed on GDP and other independent variables and in the second VECM, we regress GDP on FI along with the rest of the independent variables including MD. There is a variety of powerful tools for testing a series (or the first or second difference of the series) for the presence of a unit root. In addition to Augmented Dickey-Fuller (1979) and Phillips-Perron (1988) tests, the GLS-detrended Dickey-Fuller (Elliot, Rothenberg, and Stock, 1996), Kwiatkowski, Phillips, Schmidt, and Shin (KPSS, 1992), and Ng and Perron (NP, 2001) unit root tests are available as a view of a series. In this paper, however, we use Augmented Dickey-Fuller test for this purpose.

Table 1: Unit Root Tests

| Variables | Level (Prob.) | First Differenced (Prob.) |
|-----------|---------------|---------------------------|
| LMD | 0.7674 | 0.0439 |
| LGDP | 0.9980 | 0.0149 |
| IR | 0.1450 | 0.0154 |
| LFI | 0.9577 | 0.0124 |

According to the results in Table 1, the null hypothesis of one unit root for each of our series uses in the VECMs cannot be reject at 5% level whereas we can reject the null hypothesis of two unit roots. It means that all of the series are I (1).

Next, we test for no co-integration among our series using Johansen's maximum likelihood-based method. Both trace and maximum eigenvalue statistics will be examined. According to a programme described in MacKinnon, Haug and Michelis (1999), the modified critical values are calculated. The presence of an intercept and deterministic trends in the cointegrating equations is allowed. According to both tests, the presence of no cointegrating (CE) vectors among the variables is rejected. The hypothesis of at most one cointegrating vector and also the hypothesis of at most two cointegrating vectors are rejected. We fail to reject the hypothesis of at most three cointegrating vectors. Therefore, we conclude that there are three cointegrating vectors. The results of the cointegration tests are presented in tables 2 and 3.

Table 2: Unrestricted Cointegration Rank Test (Trace)

| Hypothesized No. of CE(s) | Eigenvalue | Trace Statistic | 0.05 Critical Value | Prob.** |
|------------------------------|------------|--------------------|------------------------|---------|
| None * | 0.994966 | 157.3560 | 47.85613 | 0.0000 |
| At most 1 * | 0.805834 | 56.81657 | 29.79707 | 0.0000 |
| At most 2 * | 0.711859 | 25.67476 | 15.49471 | 0.0011 |
| At most 3 | 0.101473 | 2.032971 | 3.841466 | 0.1539 |

Table 3: Unrestricted Cointegration Rank Test (Maximum Eigenvalue)

| Hypothesized No. of CE(s) | Eigenvalue | Max-Eigen Statistic | 0.05 Critical Value | Prob.** |
|------------------------------|------------|------------------------|------------------------|---------|
| None * | 0.994966 | 100.5395 | 27.58434 | 0.0000 |
| At most 1 * | 0.805834 | 31.14181 | 21.13162 | 0.0014 |
| At most 2 * | 0.711859 | 23.64179 | 14.26460 | 0.0013 |
| At most 3 | 0.101473 | 2.032971 | 3.841466 | 0.1539 |

Max-eigenvalue test indicates 3 cointegrating eqn(s) at the 0.05 level

*Denotes rejection of the hypothesis at the 0.05 level

**MacKinnon-Haug-Michelis (1999) p-values

VECMs permits for effects of past disequilibria in the dynamic behaviour of the variables in the model. Cointegration ties the variables together in the long run and they cannot move apart too far over time. Lagrange multiplier tests indicate that the model is free from autocorrelation at 5% level. In the next step, we proceed to estimate VECM model as below.

Table 4: Long-run Estimates of the First Vector Error Correction Model

| Cointegrating Eq: | CointEq1 | CointEq2 | CointEq3 |
|-------------------|--------------------------------------|--------------------------------------|--------------------------------------|
| LMD(-1) | 1.000000 | 0.000000 | 0.000000 |
| LGDP(-1) | 0.000000 | 1.000000 | 0.000000 |
| IR(-1) | 0.000000 | 0.000000 | 1.000000 |
| LFI(-1) | -0.751671 (0.04003) [-18.7782] | -0.193592 (0.03545) [-5.46141] | -6.821015 (1.44624) [-4.71638] |
| C | -6.796284 | -23.32150 | 187.8392 |

Table 4 represents the estimates of the long-run model and table 5 provides the estimates of the short-run model based on the three cointegration vectors.

Table 5: Short-run Estimates of the First Vector Error Correction Model

| | | | | |
|-------------|--------------------------------------|--------------------------------------|--------------------------------------|--------------------------------------|
| CointEq1 | -2.384220 (0.56709) [-4.20433] | -0.095996 (0.18264) [-0.52560] | -66.04113 (55.8335) [-1.18282] | -2.193500 (0.52823) [-4.15258] |
| CointEq2 | 1.191199 (0.35229) [3.38128] | -0.311688 (0.11346) [-2.74708] | 66.58340 (34.6855) [1.91963] | 1.056289 (0.32815) [3.21893] |
| CointEq3 | -0.007673 (0.00696) [-1.10199] | -0.006973 (0.00224) [-3.10931] | -1.369921 (0.68558) [-1.99820] | -0.008719 (0.00649) [-1.34430] |
| D(LMD(-1)) | 3.420687 (1.62148) [2.10961] | 0.589289 (0.52222) [1.12842] | -134.0287 (159.645) [-0.83954] | 2.938240 (1.51036) [1.94539] |
| D(LMD(-2)) | 1.227342 (1.41331) [0.86842] | -0.411315 (0.45518) [-0.90363] | -138.6161 (139.150) [-0.99616] | 0.754206 (1.31646) [0.57291] |
| D(LGDP(-1)) | -0.595367 (0.67271) [-0.88503] | -0.166981 (0.21666) [-0.77071] | -59.81286 (66.2326) [-0.90307] | -0.654006 (0.62661) [-1.04372] |
| D(LGDP(-2)) | -0.519919 (0.61954) [-0.83920] | -0.077118 (0.19953) [-0.38649] | 24.80208 (60.9979) [0.40661] | -0.631591 (0.57708) [-1.09445] |
| D(IR(-1)) | 0.006796 (0.00418) [1.62526] | 0.000957 (0.00135) [0.71091] | 0.268772 (0.41172) [0.65280] | 0.007018 (0.00390) [1.80172] |
| D(IR(-2)) | 0.003880 (0.00216) [1.79827] | 0.000926 (0.00069) [1.33212] | 0.101398 (0.21241) [0.47737] | 0.003131 (0.00201) [1.55791] |
| D(LFI(-1)) | -3.723513 (1.76852) [-2.10544] | -0.192384 (0.56958) [-0.33776] | 115.3505 (174.123) [0.66247] | -3.197295 (1.64733) [-1.94090] |
| D(LFI(-2)) | -1.513781 (1.59844) [-0.94703] | 0.166121 (0.51480) [0.32269] | 179.8679 (157.377) [1.14291] | -0.974971 (1.48890) [-0.65483] |
| C | 0.394751 (0.10782) [3.66121] | 0.022220 (0.03473) [0.63989] | -4.791841 (10.6156) [-0.45140] | 0.374811 (0.10043) [3.73203] |

Estimated coefficients of D(LFI(-1)) and D(LFI(-2)) in Table 5 represents the effect of financial innovation in the previous years on the demand for money in the short-run. We have the standard errors and the t-values for these coefficients but not the p-values. In order to obtain the p-values, we use the system equation and obtain the cointegration equation in this system equation. Then, we proceed to estimate the system equation above using Gauss-Newton / Marquardt steps method.

Table 6: The Estimated Coefficients of the System Equation Based on the First Vector Error Correction Model

| | Coefficient | Std. Error | t-Statistic | Prob. |
|--------------------|-------------|-----------------------|-------------|-----------|
| C(1) | -2.384220 | 0.567087 | -4.204326 | 0.0040 |
| C(2) | 1.191199 | 0.352292 | 3.381285 | 0.0117 |
| C(3) | -0.007673 | 0.006963 | -1.101990 | 0.3069 |
| C(4) | 3.420687 | 1.621476 | 2.109613 | 0.0728 |
| C(5) | 1.227342 | 1.413311 | 0.868416 | 0.4139 |
| C(6) | -0.595367 | 0.672709 | -0.885029 | 0.4055 |
| C(7) | -0.519919 | 0.619541 | -0.839202 | 0.4291 |
| C(8) | 0.006796 | 0.004182 | 1.625261 | 0.1481 |
| C(9) | 0.003880 | 0.002157 | 1.798269 | 0.1152 |
| C(10) | -3.723513 | 1.768522 | -2.105437 | 0.0733 |
| C(11) | -1.513781 | 1.598443 | -0.947035 | 0.3752 |
| C(12) | 0.394751 | 0.107820 | 3.661205 | 0.0081 |
| R-squared | 0.971804 | Mean dependent var | | 0.173936 |
| Adjusted R-squared | 0.927496 | S.D. dependent var | | 0.215057 |
| S.E. of regression | 0.057908 | Akaike info criterion | | -2.595307 |
| Sum squared resid | 0.023473 | Schwarz criterion | | -1.998819 |
| Log likelihood | 36.65542 | Hannan-Quinn criter. | | -2.494357 |
| F-statistic | 21.93280 | Durbin-Watson stat | | 2.378459 |
| Prob(F-statistic) | 0.000226 | | | |

C (1) is the speed of adjustment toward long run equilibrium. It must be significant and negative. This means that the disparity between the value of money demand in period (t-1) and its long run equilibrium value is corrected by as much as (C (1) * 100) percent. This means that the deviation of money demand from long run value is corrected in about 1/C (1) years. For this case, however, C (1) is -2.3842 which is both negative and significant. Therefore, there is long run causality running from GDP, IR and FI to MD meaning that these variables do have influence on MD. Next step is to find out if GDP affects MD in the short run using Wald test.

Table 7: Wald Test (Hypothesis: C (6) = C (7) = 0)

| Test Statistic | Value | df | Probability |
|----------------|----------|--------|-------------|
| F-statistic | 0.711420 | (2, 7) | 0.5233 |
| Chi-square | 1.422839 | 2 | 0.4909 |

The results in table 7 indicate that there is no short-run causality running from GDP to MD. We are also interested to investigate if FI has direct impact on the money demand in the short-run.

Table 8: Wald test (Hypothesis: C (10) =C (11) =0)

| Test Statistic | Value | df | Probability |
|----------------|----------|--------|-------------|
| F-statistic | 2.259645 | (2, 7) | 0.1749 |
| Chi-square | 4.519290 | 2 | 0.1044 |

Regarding the fact that Chi-square probability (0.1044) is greater than 0.05, we cannot reject the null hypothesis rather we accept the alternative hypothesis that C(10) and C(11) jointly cannot affect money demand. In other words, the results in table 10 indicate that there is no short-run causality running from FI to MD meaning that financial innovation (proxied by FI) does not have impact on money demand in the short-run.

In order to investigate if there is a GDP transmission channel, we need to regress GDP on MD, IR and FI using a second VECM and repeat the process above. Therefore, the interpretation of the results will be the same. Actually, Wald test concludes the estimation and the existence of GDP transmission channel is decided based on Wald test.

Table 9: The Estimated Coefficients of the System Equation Based on the Second Vector Error Correction Model

| | Coefficient | Std. Error | t-Statistic | Prob. |
|--------------------|-------------|-----------------------|-------------|-----------|
| C(1) | -0.311688 | 0.113461 | -2.747079 | 0.0286 |
| C(2) | -0.095996 | 0.182640 | -0.525603 | 0.6154 |
| C(3) | -0.006973 | 0.002243 | -3.109310 | 0.0171 |
| C(4) | -0.166981 | 0.216657 | -0.770714 | 0.4661 |
| C(5) | -0.077118 | 0.199533 | -0.386494 | 0.7106 |
| C(6) | 0.589289 | 0.522223 | 1.128423 | 0.2963 |
| C(7) | -0.411315 | 0.455180 | -0.903631 | 0.3962 |
| C(8) | 0.000957 | 0.001347 | 0.710914 | 0.5001 |
| C(9) | 0.000926 | 0.000695 | 1.332116 | 0.2246 |
| C(10) | -0.192384 | 0.569582 | -0.337763 | 0.7454 |
| C(11) | 0.166121 | 0.514805 | 0.322687 | 0.7564 |
| C(12) | 0.022220 | 0.034725 | 0.639886 | 0.5426 |
| R-squared | 0.940062 | Mean dependent var | | 0.034527 |
| Adjusted R-squared | 0.845874 | S.D. dependent var | | 0.047505 |
| S.E. of regression | 0.018650 | Akaike info criterion | | -4.861301 |
| Sum squared resid | 0.002435 | Schwarz criterion | | -4.264813 |
| Log likelihood | 58.18236 | Hannan-Quinn criter. | | -4.760351 |
| F-statistic | 9.980675 | Durbin-Watson stat | | 2.375218 |
| Prob(F-statistic) | 0.002819 | | | |

Now, it is time to check if FI has short run causality.

Table 10: Wald Test (Hypothesis: $C(10)=C(11)=0$)

| Test Statistic | Value | df | Probability |
|----------------|----------|--------|-------------|
| F-statistic | 0.159797 | (2, 7) | 0.8553 |
| Chi-square | 0.319593 | 2 | 0.8523 |

Chi-square probability (0.8523) which is greater than 0.05, indicates that we cannot reject the null hypothesis and accept the alternative hypothesis meaning that $C(10)$ and $C(11)$ jointly cannot affect GDP. In other words, the results in table 10 indicate that there is no short-run causality running from FI to GDP which means that financial innovation (proxied by FI) does not have impact on GDP in the short-run.

Table 7 and Table 9 confirm the fact that there is no GDP transmission channel. Table 14 indicates that FI does not impact GDP and table 9 indicates that GDP has no impact on MD so the conclusion remark is that GDP cannot be considered as a transmission channel for FI.

In order to double check this fact, we use Pairwise Granger Causality test to investigate the effect of FI on GDP and the effect of GDP on MD.

Table 11: Pairwise Granger Causality Tests

| Null Hypothesis: | Obs | F-Statistic | Prob. |
|---------------------------------|-----|-------------|--------|
| LGDP does not Granger Cause LMD | 20 | 2.79469 | 0.0930 |
| LMD does not Granger Cause LGDP | | 3.76712 | 0.0472 |
| IR does not Granger Cause LMD | 20 | 2.19275 | 0.1461 |
| LMD does not Granger Cause IR | | 3.94509 | 0.0420 |
| LFI does not Granger Cause LMD | 20 | 7.15446 | 0.0066 |
| LMD does not Granger Cause LFI | | 9.33424 | 0.0023 |
| IR does not Granger Cause LGDP | 20 | 2.76311 | 0.0951 |
| LGDP does not Granger Cause IR | | 3.55084 | 0.0546 |
| LFI does not Granger Cause LGDP | 20 | 3.64006 | 0.0514 |
| LGDP does not Granger Cause LFI | | 3.28667 | 0.0655 |
| LFI does not Granger Cause IR | 20 | 3.61669 | 0.0523 |
| IR does not Granger Cause LFI | | 2.27950 | 0.1366 |

According to table 11, FI does not affect GDP and GDP does not affect MD. By looking at table 14, it is clear that the probability for “LFI does not Granger Cause LGDP” is 0.0514 which is greater than 0.05 meaning that we cannot reject the null hypothesis (LFI does not Granger Cause LGDP) and we can accept the null hypothesis (LFI does Granger Cause LGDP).

The same goes true for the GDP causality. The corresponding probability of the null hypothesis (LGDP does not Granger Cause LMD) is 0.0930 that is larger than 0.05. It means that we cannot reject the null hypothesis (LGDP does not Granger Cause LMD) and in fact LGDP does not Granger Cause LMD.

Another way of looking at this fact is by using variance decomposition approach. Using a standard Choleski decomposition enables us to identify the short run effects of the shocks on the levels of the variables in the VECM. In this case, we are interested to find out how a shock in FI affects MD through GDP.

Table 12: Variance decomposition of LMD

| Variance Decomposition of LMD: | | | | | |
|--------------------------------|----------|----------|----------|----------|----------|
| Period | S.E. | LMD | LGDP | IR | LFI |
| 1 | 0.057908 | 100.0000 | 0.000000 | 0.000000 | 0.000000 |
| 2 | 0.071342 | 68.61043 | 30.04965 | 0.738240 | 0.601680 |
| 3 | 0.086744 | 49.38122 | 47.35712 | 2.800124 | 0.461535 |
| 4 | 0.104858 | 40.01039 | 56.06910 | 3.586896 | 0.333612 |
| 5 | 0.119164 | 33.50432 | 60.95699 | 5.245525 | 0.293159 |
| 6 | 0.121588 | 32.95532 | 61.53132 | 5.198589 | 0.314777 |
| 7 | 0.121681 | 32.91379 | 61.54658 | 5.204269 | 0.335362 |
| 8 | 0.125079 | 31.34360 | 63.02860 | 5.148537 | 0.479264 |
| 9 | 0.128312 | 29.79915 | 64.58952 | 4.894219 | 0.717115 |
| 10 | 0.134998 | 27.32526 | 67.15908 | 4.468401 | 1.047259 |

First, we derive variance decomposition when MD is the dependent variable and look at the contribution of GDP to the fluctuation of MD. Next, we derive variance decomposition when GDP is the dependent variable and look at the contribution of FI to the fluctuation of GDP.

Table 12 shows the variance decomposition of money demand (MD). Variance decomposition is divided between short-run (early periods) and long-run (late periods). In the short-run (for example, period 3), impulse or innovation or shock to GDP in logarithm form (LGDP) accounts for 47.35 percent of the fluctuation (variation) in money demand. In other words, a shock in GDP (in logarithm form) is the cause of 47.35 percent variation of money demand.

Next, we investigate what happens in the long-run. In the long-run (for example period 10), shock to GDP contributes 67.15 percent of the variation in MD. The magnitude of the impact of shock to GDP increases from short-run to long-run and it has a significant contribution starting from period 2.

Now, we derive variance decomposition for GDP. From table 18, it is obvious that the contribution of FI to the fluctuation in GDP, though rising, is very low. Less than 1% of the fluctuation in GDP is caused by FI. Another way of exploring this fact is to extract the impulse response function from this VECM model.

Table 13: Variance Decomposition of LGDP

| Variance Decomposition of LGDP: | | | | | |
|---------------------------------|----------|----------|----------|----------|----------|
| Period | S.E. | LGDP | LMD | IR | LFI |
| 1 | 0.018650 | 100.0000 | 0.000000 | 0.000000 | 0.000000 |
| 2 | 0.056649 | 87.65039 | 5.025074 | 7.324499 | 3.26E-05 |
| 3 | 0.073104 | 84.97003 | 8.173259 | 6.505626 | 0.351080 |
| 4 | 0.083633 | 81.50082 | 11.17035 | 6.770467 | 0.558363 |
| 5 | 0.084950 | 81.81987 | 10.84430 | 6.665268 | 0.670565 |
| 6 | 0.086569 | 82.28866 | 10.49600 | 6.512762 | 0.702584 |
| 7 | 0.086646 | 82.17505 | 10.58869 | 6.534239 | 0.702017 |
| 8 | 0.087180 | 82.02224 | 10.45961 | 6.814514 | 0.703632 |
| 9 | 0.087234 | 81.93867 | 10.52750 | 6.812634 | 0.721196 |
| 10 | 0.087394 | 81.94285 | 10.52000 | 6.815237 | 0.721906 |

The impulse response function is a shock to a VAR system (either unrestricted VAR or Vector Error Correction). Impulse responses identify the responsiveness of the dependent variables (endogenous variable) in the VAR when a shock is put to the error term such as U_1 and U_2 in the equations given below. A unique shock is applied to each variable and its effects on the VAR system can be seen. Note the following VAR system:

$$LMD = \beta_1 + \beta_2 LGDP_{t-i} + \beta_3 IR_{t-i} + \beta_4 LFI_{t-i} + U_1$$

$$LGDP = \beta_5 + \beta_6 LMD_{t-i} + \beta_7 IR_{t-i} + \beta_8 LFI_{t-i} + U_2$$

$$IR = \beta_9 + \beta_{10} LGDP_{t-i} + \beta_{11} LMD_{t-i} + \beta_{12} LFI_{t-i} + U_3$$

$$LFI = \beta_{13} + \beta_{14} LGDP_{t-i} + \beta_{15} IR_{t-i} + \beta_{16} LMD_{t-i} + U_4$$

For example, a change in U_1 , will bring a change in LMD. It will change LFI, IR and LGDP during the next period. Therefore, we give a shock to the innovation or residual, that is, U_1, \dots, U_4 of the above VAR model to find out how it affects the whole VAR model. For calculating impulse responses, the ordering of variables is important. Many methods are given for ordering. We have chosen Cholesky dof adjusted that is given in Eviews as default. In our model, we have 4 variables. They are LMD, LGDP, IR and LFI. Here, we give a positive shock of one standard deviation to U_1, \dots, U_4 in the above VAR model to see the response. Here, we have assumed that all of the variables are endogenous. We will investigate the responses into 10 years in the future.

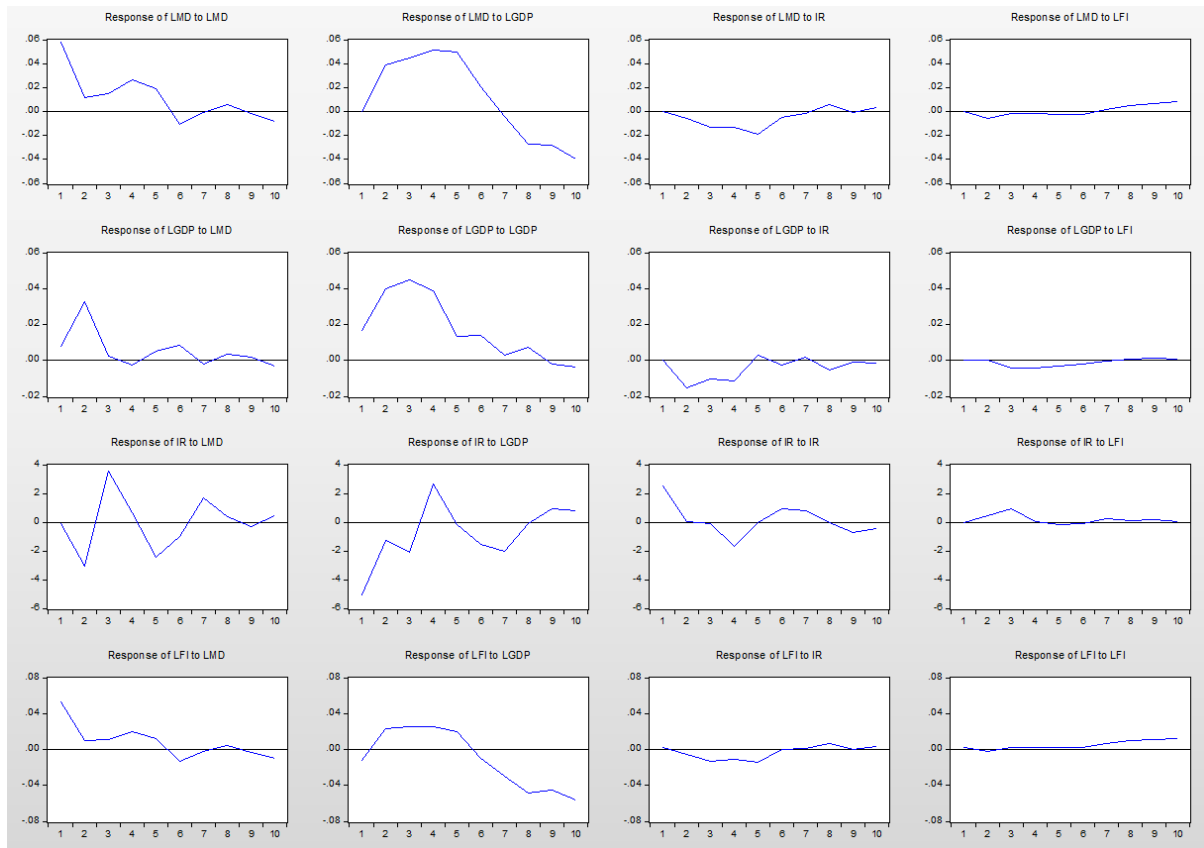


Figure 1: Response to Cholesky one S.D. Innovations (LMD as Dependent Variable)

The second graph from left at the top row of figure 1 shows that response of MD to shock in GDP is high during the entire period (both short-run and long-run). First, it responds sharply and positively until period 5 and then goes down and become zero in period 7. Then, its responds become negative for the rest of the period. The overall result of the variance decomposition of money demand is that shock to GDP causes large fluctuation in money demand (forecast error variance).

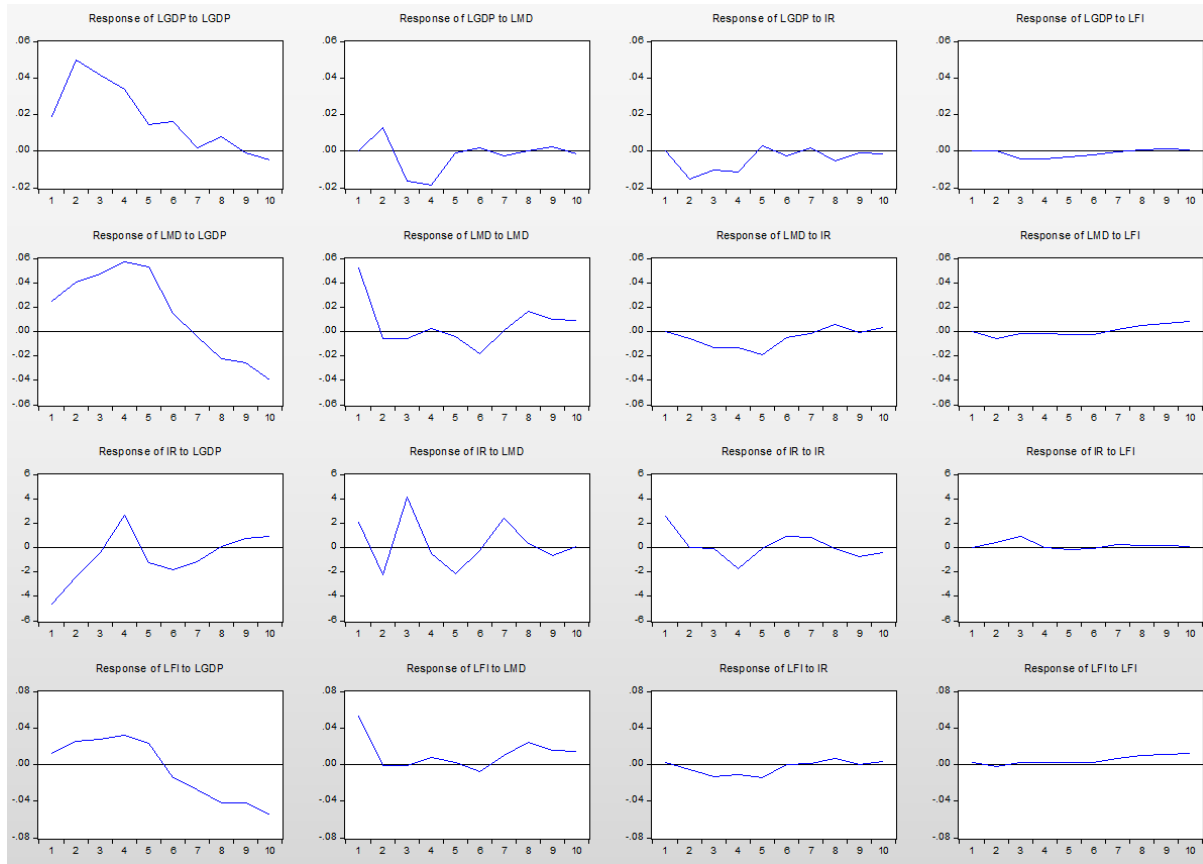


Figure 2: Response to Cholesky One S.D. Innovations (LGDP as Dependent Variable)

If we give a positive shock of one standard deviation to LFI, we want to see how LGDP will respond. The blue line is the response of LGDP. As can be seen from the corresponding figure above (top right-hand corner of figure 2), the response of GDP remains close to zero during the entire period. Again, we conclude that GDP cannot be considered as a transmission channel for financial innovation. Despite the fact that MD is responding to shocks in GDP but GDP does not respond to shocks to FI.

4. Summary

Wald test from the first VECM indicate that there is no short-run causality running from GDP to MD. Wald test also indicate that there is no short-run causality running from FI to MD meaning that financial innovation (proxied by FI) does not have direct impact on money demand in the short-run. Wald test from the second VECM also reveals that there is no short-run causality running from FI to GDP. Therefore, we conclude that financial innovation does not have direct or indirect (through GDP) impact on the demand for money in Russia meaning that GDP cannot be considered as a transmission channel for the effect of financial innovation on the demand for money in Russia during our sample period. In order to double check this fact, we use Pairwise Granger Causality test to investigate the effect of FI on GDP and the effect of GDP on MD. The test indicates that FI does not affect GDP and GDP does not affect MD.

This result is further confirmed using variance decomposition analysis obtained from VECMs. First, we derive variance decomposition when MD is the dependent variable and look at the contribution of GDP to the fluctuation of MD. In the short-run (period 3 innovation or shock to GDP in logarithm form (LGDP) accounts for 47.35 percent of the fluctuation (variation) in money demand. In other words, a shock in GDP (in logarithm form) is the cause of 47.35 percent variation of money demand. In the long-run (period 10), shock to GDP contributes 67.15 percent of the variation in MD. The magnitude of the impact of shock to GDP increases from short-run to long-run and it has a significant contribution starting from period 2. Next, we derive variance decomposition for GDP. It is evident that the contribution of FI to the fluctuation in GDP, though rising, is very low. Less than 1% of the fluctuation in GDP is caused by FI. We then conclude that although GDP is influential in explaining the fluctuations in MD, FI does not contribute much to the fluctuations in GDP leading to the fact that FI cannot cause the fluctuations in MD through GDP.

Another way of exploring this fact is to extract the impulse response function from this VECM model. The impulse response function is a shock to a VAR system (either unrestricted VAR or Vector Error Correction). Impulse responses identify the responsiveness of the dependent variables (endogenous variable) in the VAR when a shock is put to the error term such as U_1 and U_2 in the equations. Here, we give a positive shock of one standard deviation to U_i in the VECM model to see the response. Here, we have assumed that all of the variables are endogenous. We will investigate the responses into 10 years in the future. The result of the variance decomposition of money demand is that shock to GDP causes large fluctuation in money demand (forecast error variance). However, the result of the variance decomposition of GDP is that shock to FI does not cause large fluctuation in GDP. In fact, the response of GDP remains close to zero during the entire period. Again, we conclude that GDP cannot be considered as a transmission channel for financial innovation. Despite the fact that MD is responding to shocks in GDP but GDP does not respond to shocks to FI. The overall conclusion is that financial innovation does not have direct or indirect (through GDP) impact on the demand for money in Russia.

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KAJIAN LITERATUR MENGENAI SISTEM ZAKAT ATAS TALIAN DAN HUBUNGANNYA DENGAN KUTIPAN ZAKAT DI MALAYSIA

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Abstract: *Kertas kerja ini bertujuan untuk mengkaji literatur mengenai zakat, zakat atas talian dan kutipan zakat dalam usaha untuk mencari hubungan kait antara zakat atas talian, kutipan zakat dan membasmi kemiskinan di Malaysia. Literatur yang tersedia mengenai zakat, zakat dalam talian dan kutipan zakat bagi membasmi kemiskinan telah dikaji secara kritikal untuk memenuhi objektif kertas kerja ini. Metodologi kertas kerja ini berdasarkan literatur dan penyelidikan konseptual yang tidak melibatkan analisis empirikal. Penemuan kertas kerja ini akan menjelaskan perkaitan antara pembayaran zakat dalam talian, kutipan zakat dan pembasmian kemiskinan di Malaysia.*

Keywords: Zakat, sistem zakat atas talian, kutipan zakat, kewangan sosial Islam.

1. Pendahuluan

Zakat adalah merupakan salah satu daripada rukun Islam yang wajib bagi umat Islam dan dianggap sebagai satu bentuk ibadah. Fungsi zakat adalah untuk mengagihkan sebahagian kecil kekayaan individu yang bernasib baik kepada individu yang memerlukan seperti golongan fakir, miskin dan beberapa lagi golongan asnaf (R. A. R. Ahmad et al., 2015). Membayar zakat akan melahirkan perasaan belas kasihan dan mengurangkan perasaan cintakan dunia. Kekayaan itu adalah rahmat dari Allah SWT yang mesti dibahagikan. Peribadatan ini merupakan kewajipan penting yang harus kita tunaikan dalam kehidupan ini sebagai umat Islam (Abu Bakar & Rashid, 2010).

Strategi mengumpulkan dana zakat terbahagi kepada dua, secara langsung dan tidak langsung. Perkara yang membezakan kedua strategi tersebut adalah; dari segi strategi pungutan langsung, organisasi zakat akan menghubungi pembayar zakat melalui e-mel, telefon atau perjumpaan secara bersemuka. Sementara itu, untuk strategi pungutan tidak langsung, organisasi zakat tidak menghubungi secara langsung tetapi melakukan iklan atau kegiatan lain yang membuat organisasi zakat diketahui oleh khalayak ramai (Hafiduddin, 2011).

Zakat merupakan rukun Islam yang ke tiga. Zakat mempunyai fungsi dua dimensi, iaitu; (1) sebagai bentuk kepatuhan kepada Allah SWT dan (2) menjaga kemaslahatan umat Islam. Penggunaan teknologi juga boleh mengoptimumkan jumlah kutipan zakat. Kutipan zakat secara tradisional terbatas pada jumlah amil yang bertugas dan mempunyai biaya tetap tinggi (Wahab & Rahman, 2011).

Banyak sektor telah mendapat manfaat daripada revolusi teknologi, termasuk sektor perniagaan, pendidikan dan komunikasi. Sistem zakat dalam talian adalah proses membayar zakat melalui mekanisme digital di mana pembayar zakat tidak perlu menemui amil zakat secara langsung untuk membayar zakat. Potensi zakat meliputi zakat isi rumah, zakat korporat, dan zakat simpanan. Walaupun memahami tingkah laku pengguna dalam mengadaptasi teknologi adalah mustahak, mengenal pasti halangan penggunaannya lebih penting untuk dikaji (Afriyenis & Rahma, 2018).

Jurang besar antara potensi kutipan zakat dan jumlah zakat yang dikumpulkan menunjukkan bahawa sebilangan umat Islam tidak membayar zakat. Terdapat banyak cara untuk membayar zakat sebagai sebahagian daripada usaha untuk mengoptimumkan kutipan zakat agar dapat diserap mengikut potensi yang ada. Contoh kesan ini adalah penggunaan teknologi dalam sistem zakat dalam talian (Nazri et al., 2012).

2. Sistem Zakat Atas Talian

Perbadanan zakat bertanggungjawab menguruskan pengumpulan dan pengagihan zakat termasuk meningkatkan kesedaran mengenai kewajipan membayar zakat, menyediakan infrastruktur untuk pembayaran zakat, dan menguruskan pengagihan zakat kepada asnaf. Lebih-lebih lagi, kebanyakan umat Islam mempunyai persepsi negatif terhadap kecekapan pentadbir zakat dari segi pengurusan dana zakat yang berkaitan dengan isu kutipan dan pengagihan (N. N. Ahmad et al., 2014).

Sistem zakat atas talian adalah kaedah membayar zakat menerusi aplikasi perbankan atas talian. Ia adalah platform transaksi kewangan atas talian yang menghubungkan bank dalam pembayaran zakat dengan amil zakat (Hanafi, 2020). Ia juga merupakan sistem atas talian untuk aplikasi zakat yang dapat meningkatkan kecekapan pengumpulan dan pengagihan zakat. Ia juga dirancang untuk dapat menarik lebih banyak umat Islam untuk membayar zakat. Sistem ini juga dapat digunakan untuk menerima skema pembayaran lain, seperti infaq, sadaqah, waqaf dan korban di masa depan (Sakka & Qulub, 2019).

Sistem zakat atas talian adalah kejayaan penting dalam teknologi untuk meningkatkan kecekapan pengumpulan dan pengagihan zakat. Reka bentuk awal sistem ini adalah untuk memudahkan pembayar zakat memenuhi kewajibannya tanpa menghadapi kesukaran untuk mencari institusi zakat. Pembayar zakat hanya perlu mendaftar sebelum menunaikan pembayaran zakat. Mekanisme pembayaran lebih mudah dan diharapkan dapat mendorong umat Islam yang berpendapatan tinggi untuk bersungguh-sungguh membayar zakat. Sebagai faedahnya, jumlah zakat yang dikumpulkan dapat ditingkatkan. Peningkatan jumlah zakat sangat bermanfaat bagi usaha mengurangkan kemiskinan. Sebaliknya, nisab adalah ukuran untuk standard minimum yang ditentukan oleh syarak. Harta yang belum mencapai ukuran minimum zakat tidak wajib dikeluarkan zakat (Hasif & Ahmad, 2019).

Sistem zakat atas talian beroperasi di rangkaian internet, dan direka untuk memudahkan pembayar zakat menguruskan transaksi pembayaran zakat. Maklum balas yang diberikan oleh para sarjana untuk tujuan ini adalah mempunyai sistem yang membolehkan pembayar zakat menggunakan kaedah atas talian untuk membayar zakat mereka. Sistem ini menyediakan sistem pembayaran perbankan atas talian yang sah dan sentiasa dikemaskini (Muneeza & Nadwi, 2019).

Isu akauntabiliti dikaitkan dengan ketelusan. Sebuah organisasi bertanggungjawab untuk menjelaskan keadaan yang dialami, termasuk keputusan yang diambil dan pelbagai aktiviti yang dilakukan. Satu perkara yang perlu disedari oleh pengurusan organisasi zakat atas talian adalah aktiviti yang berkaitan dengan pelaporan kepada semua pihak yang berkepentingan (Muhammad, 2019).

Sistem zakat atas talian dilengkapi dengan media untuk menjadi alat pelaporan kepada pihak berkepentingan. Penyelesaiannya dapat dicapai dengan menambahkan ciri seperti akhbar, dokumentasi info grafik dan penyata kewangan. Penyata kewangan mungkin mengandungi penyata pungutan dan pengagihan yang telah dilakukan oleh perbadanan zakat (Che & Salleh, 2020).

Perbadanan zakat juga dapat melakukan aktiviti yang bertujuan untuk menyatukan pembayar zakat dan penerima zakat. Komunikasi yang baik antara semua pihak yang terlibat dalam sistem zakat atas talian sangat penting. Perbadanan zakat dapat memberikan laporan aktiviti yang disaksikan oleh pembayar zakat dan golongan asnaf. Perbadanan zakat adalah pengurus utama sistem zakat dalam talian. Perbadanan zakat bukan sahaja harus menyediakan pangkalan data penerima zakat yang sah tetapi juga harus dapat menyediakan penyata kewangan yang memenuhi aspek kebertanggungjawaban (Yaakub et al., 2017).

Kecekapan dalam konteks pengurusan zakat adalah ketepatan mengagihkan zakat kepada penerima zakat iaitu golongan asnaf. Ketepatan itu dapat dijelaskan oleh tiga kriteria, iaitu; ketepatan penerima, ketepatan jumlah yang dikeluarkan dan ketepatan masa pengagihan zakat. Kriteria pertama, ketepatan penerima, dapat dijalankan dengan berkesan oleh sistem ini. Semua sarjana mencadangkan agar pihak-pihak tersebut menjadi penerima zakat sepenuhnya melalui proses pengenalan diri. Perbadanan zakat mesti dilatih untuk proses mengenal pasti golongan asnaf sebelum membangunkan sistem zakat atas talian (Hidayat, 2020).

Kriteria kedua adalah berkaitan dengan jumlah zakat yang diterima oleh penerima zakat. Sistem ini memerlukan inovasi baharu dimana perbadanan zakat dapat memilih calon penerima zakat hanya menggunakan sistem atas talian. Oleh itu, proses pengagihan zakat dapat dijalankan dengan lebih optimum untuk keperluan penerima zakat iaitu golongan asnaf. Setiap golongan asnaf hanya akan menerima zakat mengikut syarat maksimum, seperti yang dinyatakan dalam proses pengenalan diri. Sekiranya penerima zakat telah menerima sejumlah wang zakat dan telah mencapai had maksimum, maka sistem itu secara automatik akan menyekat namanya sebagai bakal penerima zakat. Sistem penyekatan akan dilaksanakan pada setiap bulan (Hanafi, 2020).

Ketepatan ketiga adalah berkaitan dengan penyampaian zakat yang tepat pada masanya. Sistem zakat atas talian telah dibangunkan untuk menyokong aspek penyerahan yang tepat pada masanya. Sistem yang ada hanya akan mengeluarkan arahan kepada pihak bank untuk memotong hingga sepuluh peratus dari zakat yang dibayar dan menyerahkan selebihnya ke akaun perbadanan zakat. Baki dana akan dipindahkan terus ke penerima zakat (Ibrahim, 2008).

3. Kutipan Zakat

Untuk mengatasi masalah kemiskinan, Islam menyarankan penyelesaian yang sangat tepat dan berkesan, yang mewajibkan umat Islam berkelayakan memberi sedekah atau zakat. Pada masa kini, kesedaran mengenai kewajipan membayar zakat semakin meningkat dalam kalangan umat Islam. Membayar zakat adalah wajib dan merupakan salah satu cara bagi seorang Muslim untuk membersihkan kekayaan dan pendapatannya mengikut prinsip Islam (Hisyam et al., 2018).

Zakat juga penting untuk mengembangkan ekonomi negara kerana dapat menjadi sumber pembiayaan mikro kepada sebahagian umat Islam yang tidak mampu memperoleh pendapatan yang mencukupi untuk memenuhi keperluan asas mereka. Untuk lebih spesifik, tujuh sumber zakat mesti dibayar dari tujuh sumber kekayaan dan pendapatan; zakat perniagaan, zakat hasil pertanian, zakat simpanan, zakat binatang ternakan, zakat perlombongan, zakat pendapatan dan zakat fitrah (Idris, 2006).

Pungutan zakat melalui perbadanan zakat semakin meningkat dari tahun ke tahun. Ini mungkin disebabkan oleh beberapa faktor seperti sistem zakat atas talian, misalnya pembayaran zakat atas talian yang akan meningkatkan tahap kecekapan untuk pengurusan zakat, penswastaaan institusi zakat, peningkatan pembayar zakat dan pendapatan mereka dan sebagainya. Di Malaysia, semua aspek pentadbiran zakat berada di bawah bidang kuasa negeri-negeri melalui Majlis Agama Islam Negeri (MAIN) (S. Ahmad & Wahid, 2016).

Oleh kerana terdapat permintaan untuk mengumpulkan dan mengagihkan dana zakat di Malaysia dengan lebih cekap dan berkesan, beberapa Majlis Agama telah mengkorporatkan sebuah institusi yang bertanggungjawab dalam hal pungutan dan pengagihan sebahagian zakat di negeri-negeri tertentu. Lapan Majlis Agama setakat ini diperbadankan, bermula dengan Pusat Pungutan Zakat (PPZ), Wilayah Persekutuan pada tahun 1991, diikuti oleh Pusat Zakat Selangor, Pahang dan Pulau Pinang pada tahun 1995, dan terakhir Pusat Pungutan Zakat Negeri Sembilan dan Melaka pada tahun 2000. Ia diikuti oleh Tabung Baitulmal Sarawak pada tahun 2001 dan yang terbaru adalah Pusat Zakat Sabah yang telah diperbadankan pada tahun 2007 (Wahid et al., 2005).

Objektif utama kutipan zakat adalah keadilan sosio-ekonomi. Pungutan dan pengeluaran zakat dapat meningkatkan penggunaan kerana boleh meningkatkan kuasa membeli golongan fakir dan miskin. Kesannya, kekayaan dapat dipindahkan daripada golongan yang berpendapatan tinggi kepada golongan asnaf. Bagi pengagihan semula kekayaan dan pendapatan dalam masyarakat, zakat adalah merupakan sistem utama dalam menjayakan objektif ini (Terhadap et al., 2016).

Perbadanan zakat telah menggunakan dana zakat untuk mengurangkan kadar kemiskinan. Berdasarkan laporan Majlis Agama Islam Wilayah Persekutuan (Laporan Zakat PPZ-MAIWP 2010), dari Pusat Pungutan Zakat (PPZ), kutipan zakat mencecah ratusan juta Ringgit setiap tahun. Jumlah ini cukup besar untuk membantu kerajaan menangani masalah kemiskinan (Hafizah & Ishak, 2013).

4. Kesimpulan

Berdasarkan penemuan kajian ini, masih banyak yang perlu dilakukan untuk memperbaiki sistem zakat atas talian. Walaupun jumlah kutipan zakat meningkat di seluruh negeri selama bertahun-tahun, ia hanya dapat mengurangkan masalah kemiskinan namun ia masih belum dapat menyelesaikannya. Ini kerana pelbagai masalah termasuk pangkalan data asnaf yang tidak tepat, birokrasi, pengenalpastian asnaf, ketidaktahuan asnaf, sikap amil dan jarak geografi dengan asnaf masih perlu diperkemas dan diselesaikan bagi menjadikan sistem kutipan zakat secara atas talian lebih cekap pada masa hadapan.

5. Penghargaan

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LANGUAGE PRACTICE AND LANGUAGE IDEOLOGY ON LINGUISTIC LANDSCAPE IN MALAYSIA

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Abstract: *This paper explores the language choice in the business field through linguistic landscape in a multilingual community in a Federal Territory in Malaysia. The main aim of this paper is to examine the impact of language management (language policy) on the language practice (language use) and the language ideology (language belief) of a language community by using Spolsky's theory of language management (2009). This ethnographic research also employs Ben-Rafael's (2009) linguistic landscape to examine the language use and language beliefs reflected in the naming of companies. The corpora comprise 212 and 233 brand names collected in 2012 and 2018 respectively. They were analysed qualitatively to examine the patterns of language use. Interview sessions with seven company owners in the language community were conducted to explore their language ideology towards their language/s use on branding. The findings of this study show i) the use of Malay language for the company signs has higher frequency in the 2018's data compared to the 2012's data. (ii) the language community on the island supports the language policy implemented by the local authority because the status of Malay language is indisputable. The study suggests the existing signs should be preserved because they have historical heritage value and reflect the multilingual practice of the language community. In order to avoid making signboards that defy the language policy, new signboards submitted for approval should abide to the standard operation procedure set by the local authorities.*

Keywords: Company names, language ideology, language management, language practice, linguistic landscape.

1. Introduction

Linguistic communication requires a shared language. As a multilingual country, Malay language, English and Mandarin are the dominantly practised languages in Malaysia. There are also Kadazandusun language and Iban language which are used by the Kadazan-dusuns (in the state of Sabah) and the Ibans (in the state of Sarawak) respectively on the Borneo Island.

Malay language is the only national language and the official language in the country and English is the language for internationalisation. Mandarin and other indigenous languages such as Kadazandusun and Iban are the dominant communication languages among the ethnicities of Chinese, Kadazandusuns and Ibans. All these languages are either the dominant medium of instruction, compulsory learn language or the elective language in Malaysian formal education system.

In a multilingual country, languages develop according to the needs of the language community (Edwards, 2012). Words are the indicators of the varieties of language. Therefore, different systems of words are best seen because they indicate the condition of varieties in the language community.

2. Literature Review

Language policy (LP) is sometimes used as the synonym of *language planning* (Cooper, 1989). However, Jernuld and Neustupný (1986) and Spolsky (2009) use language management instead of language planning to refer to language policy. In addition, Cooper (1989) refers LP as the goals of language planning and it is the decision of language management.

According to Asmah (1993), language planning is a process to ‘decide’ the language by the authority and then to ‘structure’ the decided language through a sequence of development. It is the actions taken by the authorities, agencies and people with authority to modify the language choices. LP structures are not just the varieties of language but also the language items of language such as the pronunciations, spelling, choice of lexical, grammar and style which made up the language (Spolsky, 2005).

The LP could be implemented in different scales and its desired impact may occur in different levels. The large-scale activities or the macro level LPs are normally designed and implemented by the government; the meso level LPs could be implemented by the local government and the micro level LPs is usually by the family or individual (Kaplan & Baldauf, 1997). Not all the LPs are explicit, there are countries and institutions that do not have formal or written LPs (Spolsky, 2004). In the context of Malaysia, the status of Malay language is explicitly enacted in Article 152 – National Language and Other Language of Constitution of Malaysia where:

- i. Everyone is free to teach, learn or use any other languages, except for official purposes. The phrase *Official purposes* here means any purpose of the Government, whether Federal or State, and includes any purpose of a public authority.
- ii. The Federal and State Governments are free to preserve or sustain the use and study of the language of any other community.

Malaysian authority has explicitly enacted Malay language as the national language in the macro level for the official domain and education domain. The Malay language policy is also explicitly implemented by 179 local authorities in the meso level in the country i.e., prioritising Malay language on all the billboards or advertisements. The local authorities are responsible for approving the business premise and signboard licences (Malaysia: Investment in the services sector_Advertising services) in the country. According to the guideline of the Licence Department of local authority, all the new applicants of licenses for billboard and advertisements are required to fulfil the criteria, namely i) all billboards or advertisements must consist of the standard Malay language, ii) the font size of wordings in other languages such as Mandarin, English etc. cannot be bigger than that of the Malay language.

After sixty-year of Malaysian government efforts to establish the prestige of Malay language, English is still used widely in Malaysian business world and it is deeply entrenched in Malaysian private sectors of business, industry, banking and finance domains (Spolsky, 2009). Coluzzi's (2012) investigation finds that Malay language is hardly used by the non-Bumiputras and it ranks second to English in many high domains (2017). English is perceived as the most important and preferred language for university students to write e-mail and text messages to people of the same ethnicity and different ethnicities (Coluzzi, 2012).

Albury's (2020) stated that in addition to English, Mandarin is considered to have more linguistic capital than Malay language among the Malay undergraduates. These students agree that the Malaysian language policy should promote the use of Mandarin. Despite of the implementation of Malay language policy, the non-Malays do not have a language shift to Malay. The undergraduates agree that embracing language diversity may enhance their future life. All these findings show Malay language is not prioritised by the language community in Malaysia.

The main objective of this study is to apply Spolsky's theory of language management to investigate the impact of Malay language policy from the bottom-up perspective i.e., to examine the language practice and language ideology of non-Bumiputras or the Chinese language community as shown in the linguistic landscape in Malaysia.

Linguistic landscape (LL)

Lefebvre (1991) proposed three dimensions of space: 'spatial practice', 'conceived space' and 'lived space'. The 'spatial practice' refers to the objects produced during human action in the physical space. The 'conceived space' relates to the politicians, policymakers and policy planners. The 'lived space' results the symbols and metaphors are presented through the experience of the resident of the areas (as cited in Chuaychoowong, 2019, p. 1242). Trumper-Hecht summarises these three dimensions of spaces as 'physical', 'political' and 'experiential' dimensions of linguistic landscape (2010, as cited in Chuaychoowong, 2019, p. 1242).

LL is a subfield of sociolinguistic and language policy (Spolsky, 2009a) that studies the visible display and written language in the public sign (Van Mensel et al, 2016). It was first time clearly defined as:

The language displayed on public road signs, advertising billboards, street names, place names, commercial shop signs, and public signs on government buildings forms the linguistic landscape of a given territory, region, or urban agglomeration (Landry & Bourhis, 1997, p. 25).

The signs can be divided into private and government signs or bottom-up and top-down signs (Landry & Bourhis, 1997), official and non-official signs (Bachaus, 2006), private and public signs (Shohamy et al, 2010). A private sign is designed by individuals, associations or firms in limits of authorized regulations. A public sign is distributed by public agencies such as the government or the municipalities (Shohamy et al, 2010). A private sign is a marked surface which is put up in a public space to convey a message to a non-specific group of readers (Backhus, 2007). A private sign is used to advertise a business or product. A sign may make sense when it is in combination of its referent that is, the message to be conveyed depends on the context and spatial circumstances i.e., when it is put up at the right point of time and space.

Ben-Rafael (2009) studies the linguistic objects that mark the public space i.e, every space in the community or the society but not included the private propriety. A sign serves informational and symbolic functions (Akindele, 2011). The language used on the signs is a written form of symbolic sign system that represents meanings (Backhus, 2007). When LL studies the use of written form of language in the public sphere (Gorter, 2006), it may describe the territorial limit of a language group and clear-cuts the language boundaries of the adjoining languages in a geographical territory (Landry & Bourhis, 1997). LL also informs the linguistic characteristics through the use of mono-, bi- or multi-languages on the signs put up at the public space to reflect the diversity of language groups and the patterns of language choices in the territory.

Private signs are put up in the public space in the commercial context to draw the attention to a business or product (Backhus, 2007). These signs evince the landmarks of public spaces through languages and symbols (Ben-Rafael, 2009). This is to be done through analysing the language utilised, the relative saliency, syntactical and semantic aspects of the private signs or through LL. The official language policies may affect the language practice of the language community but the sign makers may defy the language policies (Shonamy & Gorter, 2009). This deduced that the language in LL is 'real life', authentic, dynamic and energetic.

The status and power of the language used are informed through the frequency of the language appearing on a private sign in public space (Landry & Bourhis, 1997). In Malaysia, the status and power of the language are not only informed through the frequency of language use but also the font size of characters on the put-up signs in the public space.

Spolsky's Theory of Language Management (2009)

Spolsky's Theory of Language management stated that a LP could be studied through focusing on three interrelated components, namely i) language management, ii) language ideology and language practice (2009).

Language Practice

Language practice is defined as how a language user uses a particular language when he/she is given the freedom to use a language from a variety of languages (Tollefson, 1999). Spolsky defines 'language practice' as the habitual pattern an individual demonstrates when selecting a language among the varieties available in the individual's linguistic repertoire. Language choice is an observable behaviour noted in a language user to use the language specifically with a particular language community (2009).

The language use pattern of a language community and how the community behaves through their language use can enable the readers to understand the community's culture and thus shedding light on what functions the used language serves in the community (Hymes, 1962). What language the language users use, for what purpose, with whom and in what environment the language is used are important issues when looking at research on language planning (Spolsky, 2004). In addition, Spolsky and Cooper's (1991) conditions model may describe the conditions that motivate the language use of the sign makers on the signs they produce in LL studies (Spolsky, 2009). Three conditions are stated in Spolsky and Cooper's (1991) conditions model as follows:

- i. Sign-writer's skill condition - The sign maker chooses the language/s that he/she knows to write on the signs;
- ii. Presumed reader's condition - The sign maker chooses to write on the signs by using the language/s that can be read by his/her expected readers to read it; and
- iii. Symbolic value condition - The sign maker writes a sign in their own language/s or the language/s they wish to be identified.

In the present study, the researcher thus attempts to examine the condition which has strongly motivated the sign makers' language use on the signs used. The findings explain the language ideology of the language community towards their language use.

Language Ideology

Language ideology is the general consensual set of beliefs about language use shared by the members of the same speech community for a particular language or language variety (Spolsky, 2009). The beliefs, presuppositions, judgements and stereotypes about other ethnic groups and their languages of a language community may be reflected through their discourse (Wighboldus & Douglas as cited in Albury, 2020, p. 5). The language or language variety which is likely to be used as the language choice by more language users has more value and prestige (Spolsky, 2004).

The relationship between language practice and language ideology is not only shaped by language policies but also the power of language users in the society (Field as cited in Kiss, 2012). The findings of research on language ideology may better explain the relationship between social inequality and linguistic nationalism (Kroskirty as cited in Kiss, 2012). This is because any level of inequality is produced and strengthened by power of society.

Language ideology also carries important information about language beliefs impact on the community members' choice of language use (Baquedano-Lopes & Kattan as cited in Kiss, 2012). In 2007, Malaysian Ministry of Culture, Arts and Heritage stated that a fine up to RM1000 could be imposed to sign owners for billboards and posters that display the mutated form of the Malay language, *Manglish* i.e., the Malay language mixed with English (Spolsky, 2009).

In September 2018, some business premise owners of Muar (a district in the state of Johore, in southern Peninsula Malaysia) were given two weeks to erase the Chinese characters of their company names on the pillars by the Muar local authority. In addition, some business premise owners were also ordered to remove their put-up billboards. The reason why such an order was given was because the font size of the Chinese characters on the pillars and billboards are bigger than that of the Malay lexes (Lin, *sinchewdaily*, 6 September, 2018). This removal order shows that the authority is serious in implementing the national language policy.

However, the anachronistic removal order was abolished. The abolishment was because the targeted pillars and billboards have cultural heritage value (*orientaldaily*, 6 September 2018). The pillars and billboards were put up for about a century i.e., before the independence of Malaya and before the execution of the national language policy.

How about those company signboards in other districts in Malaysia? What are the patterns of language/s use on the company names? Which condition in Spolsky and Cooper's conditions model has motivated the company owners to use the language/s on their company names? This diachronic study aimed to examine the impact of language policy on the language practice and language ideology of the business community reflected through the naming of companies.

2.1 Problem Statement

The business owners use their company names for branding. Language/s used by the business owners to transmit their message to the reader/s of their company names. The anachronistic company names show it meets the needs and cultural transmission of the business owners but not necessary reflects the national language policy.

3. Method

This study is conducted on Labuan, an island in Malaysia. The island of Labuan (derives from the Malay word of *labuhan* which means harbour) situates on the South China Sea with an area of 92 km². Labuan has a total population of 99,200 people and 88,100 out of the 99,200 people are Malaysians. The demographic distribution of the population is 75,000 of Malays and other indigenous peoples, namely 9,500 Chinese and 3,600 of other ethnicities. The ratio of Malays and other indigenous peoples to the Chinese in the island is 8:1 in 2018 (Department of Statistics, 2018).

The island became the second federal territory in 1984 after Kuala Lumpur was declared as one and Labuan is also the International Offshore Financial Center (IOFC) since 1990.

3.1 Materials

Two sets of data were collected by the researcher in this study. The first set of data is the corpora which made up of photographs of company names. The other set of data is collected through the interview sessions with the company owners.

3.1.1 Corpora Data

This study employed two sets of corpora data comprising 212 and 233 names of company. The first set was collected in 2012 while the second one in 2018. Both sets of corpora data were collected in the Federal Territory of Labuan to investigate the language practice and the pattern of language use for company signage. Photographs of company signage at the public space with lexes found at Labuan town were targeted and collected. This study did not analyse the company signage which was put up in the only shopping centre of the island (the shopping centre is named as “Financial Park”). This is because it is a private property. As noted in the literature, linguistic landscape only examines the linguistic objects found in every public space in the community (Ben-Rafael, 2009).

According to the Labuan local authority, all the put-up company signage must have the romanised characters. All put-up company signage is only allowed a minimum of two sentences i.e., one sentence presented in a non-romanised language and the other sentence is in the romanised version using transliteration, semantic translation or substitution strategy (Soon et. al., 2017).

3.1.2 Interview

Interview sessions with seven interviewees (n=7) was conducted in this study. All the interviewees are the company owners on the island. The main purpose of conducting the interview sessions was to study:

- i. the condition that motivates the language choice of the company owners on their company name; and
- ii. the language ideology or the perception of the company owners towards national language policy and the language/s they use on their company signage.

3.1.3 Procedures

This diachronic study was conducted by using two sets of corpora data comprising company names were taken by the researcher at the same research site in 2012 and 2018. All the company names put up by the company owners were taken by the research in the form of photograph using a digital camera. All the company signs could be seen from ground floor to the top floor were taken from outside of the building.

The patterns showed language used by the company owners to romanise their company name analysed. In addition, the company owners romanise their company name using more than two languages interviewed to collect the data of language ideology.

3.2 Measurement

The two sets of corpora with *Hanzi* or the Chinese lexes and the language/s used to romanise the Chinese lexes were analysed and compared. Content analysis was conducted to analyse the lexes used on the corpora and the interview data for language ideology.

3.3 Data Analysis

The number of language/s used and the frequency of the language/s used on the company name were compared between the two sets of data. The findings unveil the language use patterns and the perceptions of the business owners towards the language/s employed on their company signage.

4. Results and Discussion

The language practice and language ideology of the language community on Labuan island are presented by unveiling the findings of corpora and interview data.

4.1 Language Practice on Company Signage

The language practice on the company signage of the business community on Labuan island in 2018 shows more towards multilingual use. The language practice of the business community on the island to romanise their business signage shows three patterns i.e., monolingual, bilingual and multilingual code-mixing. The comparison of the language/s use is shown in Table 1.

Table 1: Language Patterns of Romanising Company Signage

| Pattern | 2012 | | 2018 | |
|--------------|----------------|------------|----------------|------------|
| | No. of company | Percentage | No. of company | Percentage |
| Monolingual | 74 | 34.4 | 85 | 36.5 |
| Bilingual | 127 | 59.9 | 131 | 56.2 |
| Multilingual | 11 | 5.7 | 17 | 7.3 |
| Total | 212 | 100 | 233 | 100 |

The study shows the percentage of monolingual and multilingual language practice on the company signage used in 2018 has slightly increased compared to that in 2012. However, the percentage of bilingual language practice in 2018 shows slight decrease. The increase of multilingual percentage suggests that the business community on the island becomes more multilingual. The language/s used by the business community on their company signage is to be discussed in detail in the following sections.

4.1.1 Romanising Business Signage in Monolingual

There are three patterns of language used by the businessmen to romanise their business signage. Table 2 shows the language use in the corpora in 2012 and 2018.

Table 2: Language Use on Monolingual Business Signage

| Pattern | 2012 | | 2018 | |
|----------|----------------|------------|----------------|------------|
| | No. of company | Percentage | No. of company | Percentage |
| Mandarin | 3 | 4.06 | 3 | 3.53 |
| Malay | 17 | 22.97 | 21 | 24.71 |
| English | 54 | 72.97 | 61 | 71.76 |
| Total | 74 | 100 | 85 | 100 |

The findings show a slight decrease in the percentage of using monolingual Mandarin or English by the company owners to romanise the company signage for the data in 2018. However, there is no change in number of Mandarin monolingual company signage i.e there are three monolingual Mandarin company signage in the corpora. The English monolingual company signage found in the 2018's data also shows a slight decrease in percentage but an increase of seven company names comparing to the 2012's data. In addition, Table 2 also shows the Malay monolingual romanised company names in the 2018's data has increased about two percent compared to the 2012's data.

The strategy of transliteration, semantic translation and substitution are the three strategies used by the business community to romanise the Chinese lexes of their business names (the author et al., 2017). The pure transliteration strategy is the use of roman alphabets to transform the phonic (sound) system of Mandarin and/or Chinese dialects. Figure 1 shows an example of pure transliteration strategy used by the company owner to romanise the Chinese lexes. The Chinese lexes 合源 is pronounced as *He Yuan* in Mandarin. However, the company owner transliterated it as *Hup Juan* based on the phonic system of a Chinese dialect. Furthermore, this pure transliterated company signature does not show any element of other language besides using alphabets to present the sound of Chinese dialect.



Figure 1: Romanisation of Monolingual Mandarin Company Sign

Some businessmen on the island use the semantic translation strategy and/or substitution strategy to romanise the Chinese lexes of their company names. These company names are transformed into either monolingual Malay (see Figure 2) or monolingual English (see Figure 3) in their company signage.



Figure 2: Romanisation of Chinese Lexes to Monolingual Malay Company Sign

As shown in Figure 2, the company owner of 金陽有限公司 has romanised his company name into monolingual Malay company sign *Saga Handal Sdn. Bhd.* The company owner practises semantic translation strategy to translate the ‘有限公司’ into Malay as *Sdn. Bhd.* which is the abbreviation of *Sendirian Berhad* or private limited. In addition, the owner romanises 金陽 (golden sun) by substituting the Malay lexes of *Saga Handal* where *saga* is related to gold (the measurement unit of gold) and *handal* means great (Online *Kamus Inggeris-Melayu Dewan*). As shown “Saga Handal” is not related at all with the meaning of the sun.

This incident shows that the company owner has used different lexes during the romanising process.



Figure 3: Romanisation of Mandarin Lexes to Monolingual English Company Sign

Figure 3 shows that the company owner applies the semantic translation strategy to transform the Chinese lexes 时尚 (fashion) into its synonym word style to ‘Top Style’. In addition, 发型屋 is semantically translated into “Saloon”. The English lexis - Unisex in the romanised company name is not found in the Chinese company name. This shows the company owner has added more lexes when transforming the Chinese company name into the romanised one.

4.1.2 Romanising Business Signage Bilingually

There are three patterns of using the bilingual method by the business community when romanising their company signage. The three patterns are discussed individually below.

i. Mandarin and Malay bilingual mixed-codes



Figure 4: Romanisation of Mandarin Lexes into Bilingual of Mandarin and Malay

Beside monolingual, some of the company owners romanised their company bilingually. As shown in figure 4, the company sign shows a code-mixing of Mandarin and Malay. The Chinese lexes 大華 (*Da Hua*) is a sound in a Chinese dialect transliterated into *Tai Wah* and the 鐘錶中心 is semantically translated into Malay as *Pusat Jam* which means ‘watch center’.

ii. Mandarin and English Bilingual Mixed-Codes



Figure 5: Romanisation of Mandarin Lexes into Bilingual of Mandarin and English

Similar to the example in Figure 4, the Chinese lexes 甜心 which is pronounced as *Tian Xin* in Mandarin is also transliterated into *Ten Sing*. However, the Chinese lexes 飲食小店 (food and beverages mini shop) is replaced with the word ‘Shop’. Unlike the example in Figure 3, the company owner has excluded the phrase “food and beverages” when romanising the company name.

iii. Malay and English Bilingual Mixed-Codes



Figure 6: Romanisation of Mandarin Lexes into Bilingual of Malay and English

In addition to using sound transliteration of Mandarin lexes as a strategy in romanising the company names as shown above, Figure 6 shows a code-mixing of Malay and English without the use of sound transliteration. The company owner semantically translated the Mandarin lexes of 龍 and 鳳 to English lexes of Dragon and Phoenix respectively. Furthermore, the Mandarin lexes of 茶餐室 is also semantically translated into Malay lexes of *Kedai Kopi*. Though the Malay lexes are used, the Malay lexes match that of the Chinese semantically (*Kedai Kopi* = 茶餐). Similarly, the element of Chinese culture is still reflected on the company name that uses the English lexis “Dragon and Phoenix”. Dragon and Phoenix are the two important animals that have the symbols of goodness and holiness in Chinese mythology (Soon, 2011).

Figure 4 and Figure 5 show the romanisation of company signs by using sound transliteration of Mandarin and semantic translation or substitution of Malay lexes and English lexes. Figure 6 uses semantic translation of Mandarin lexes into Malay and English lexes. The frequency of using the above mentioned combinations of strategies to romanise the Chinese lexes of company names in the corpora (2012 and 2018) is shown in Table 3.

Table 3: Comparison of Language Use on Bilingual Business Signage

| Pattern | 2012 | | 2018 | |
|-------------------------|----------------|------------|----------------|------------|
| | No. of company | Percentage | No. of company | Percentage |
| Mandarin-Malay | 38 | 29.9 | 42 | 32.1 |
| Mandarin-English | 51 | 40.2 | 48 | 36.6 |
| Malay-English | 38 | 29.9 | 39 | 29.8 |
| Other language-Mandarin | 0 | 0 | 1 | 0.8 |
| Other language-English | 0 | 0 | 1 | 0.8 |
| Total | 127 | 100 | 131 | 100 |

Table 3 shows a decrease in the percentage of companies that uses English to romanise Mandarin lexes in 2018 compared to in 2012, specifically in the use of bilingual Mandarin and English.

The study also shows the business community on the island becomes more multilingual. This is because the business community on the island does not only use the three dominant languages, namely Mandarin, Malay and English to romanise the Mandarin lexes in the 2012’s data, other foreign languages such as Japanese and French are also used by the company owners as shown in the 2018’s data.

Though there is a slight decrease in the percentage of Malay and English mix-code romanised company signage on the island, the percentage of language use of Mandarin and Malay mix-code romanised company signage increases in 2018. This suggests that the frequency of using Malay to romanise the Chinese lexes in the company names has increased as shown in the 2018’s data.

4.1.3 Romanising Business Signage in Multilingual

There are 17 multilingual business signage in the 2018's data. 16 out of these 17 company signage use the three languages, namely Mandarin, Malay and English to romanise the Chinese lexes.

In Figure 7, Mandarin, Malay and English are code-mixed by the company owner to romanise their company name. The Mandarin lexes 星光 (pronounced as Xing Guang in Mandarin) is transliterated into "Sing Kwang" (sounds found in a Chinese dialect). The Mandarin phrases of 电器中心 and 有限公司 are semantically translated into Electronic Centre (English) and *Sdn. Bhd.* (the abbreviation of *Sendirian Berhad* in Malay) respectively. The romanised company name, Sing Kwang Electronic Centre *Sdn. Bhd.* reflects the multilingualism of Malaysian language community.



Figure 7: Code-Mixing of Mandarin, Malay and English

Malaysia being a multi-racial and multilingual country, the language community is free to use any language/s in the informal settings. However, the bilingualism and multilingualism of the language community and the impact of language policy implemented by the authority are reflected through the language choice on the put-up signs specifically the company signs shown in the corpora in the study. The perceptions of the language users (company owners) towards their language choice, belief toward the selected language/s for their company signage and the implementation of language policy promulgated by the authority are discussed in next section.

4.2 Perceptions of Language Practice of the Company Owners

The seven interviewees of the study are polyglots. They have the language proficiency of Malay, English, Mandarin, Chinese dialects. Some are proficient in Hindustani language. Malay and English are mainly used by the interviewees to communicate with their customers during the daily business transactions. The above supports Spolsky (2009)'s view that English is still spread in the business world in Malaysia and is deeply entrenched in the private sectors. However, Malay is a dominantly used language by the interviewees in the study during the business transactions because it is the most preferred language of their customers. This suggests that Malay is competing with English in its use for the daily business transactions and Malay is spreading widely in the local business world in Malaysia.

4.2.1 Language Ideology of the Company Owners

The findings of the study show the frequency of using the Malay language by the company owners to romanise their company names are higher in the 2018's data compared to the 2012's data. The language community on the island has romanised their company name by using Malay monolingually (Table 2), code-mix with other language/s i.e., bilingually (Table 3) or multilingually.

There are a few reasons why the Malay language is a more preferred language used by the language community to romanise the company names. First and the most important reason is relating to the language policy implemented by the local authority. The policy requires that all non-romanised company names must be romanised and Malay is the prioritised language to be used for the company names. All the company license applicants must comply to the language policy upon the approval of a new company name. The interviewees of the study agree on the Malay prioritised used policy. They also understand and respect the objective of implementing the policy i.e., the status of Malay as the only national language in Malaysia means that its use is not limited for the official purposes or in the government offices. In addition, they agree that the Malay language should be cherished and to be used in all fields and by all Malaysians. Besides abiding to the set criteria, Malay language becomes the language choice of the business community on the island due to the readers of the business signs i.e., based on the presumed reader's condition (Spolsky & Cooper, 1991). The company owners on the island use the language/s that their potential customers can understand for their put-up company signs. According to the findings of the interviewee sessions, Malay and English are the dominant communication languages used with the interviewees' customers in their daily business transactions. This is related to the demographic distribution of population in the island. There are 75,000 of Malays and other indigenous population on the island or the ratio between the Malays and indigenous peoples to the Chinese is 8:1. This suggests that Malay is to be the most frequently-used language by the business community in their daily business transactions with their customers. Labuan island was the strait settlement of the British government before the Second World War. During the period, English was an important administrative language on the island. English is taught as the second language in Malaysian formal education institutions. Therefore, Malay and English are the two most common languages used by the interview participants' customers.

The interviewees of the study also believe that using the Malay language for their company signs can create a closer relationship between the company and their targeted customers compared to merely using the Mandarin lexes. This is because they found out that the language choice for their company signs may create a good rapport between the business owners and their customers. In addition, the company owners find that using bilingual or multilingual languages, instead of a monolingual Chinese company signs for their company signs may reflect the scenario of multiracial society on Labuan island. Therefore, mixed-codes of Mandarin, Malay and English have become the language choice of the Chinese business owners on the island when naming their companies.

5. Conclusion

The study shows an increase in the use of the Malay language for company signage put up on the island in the 2018's data. This suggests that the Malay language is not only used for official purposes but it has become more and more important for the business domain in the business community on the island.

Indirectly, the positive change shows the success for the planning of the Malay language status by the Malaysian government through the implementation of the language policy i.e., the use of the Malay language for the company signage is prioritised by the Licence Department of Labuan local authority. In addition, this shows the authority has successfully influenced and changed the language practice of the business community on the island.

The business community respects the status of the Malay language and they agree that the Malay language should be cherished. Some of the business owners have substituted their Chinese-lexes company name with that of the Malay or English, which is neither phonetically nor semantically related to the Chinese lexes in the romanising process. Even though the transliterated company names have replaced the sound of the Mandarin or Chinese dialects by using the romance alphabets and the semantically translated company names into either Malay or English, they are unable to reflect the cultural elements of good wishes, ethics and moral values as reflected or inferred in the Chinese lexes. The put-up company names explicitly reflect that Malaysia is a multicultural country.

In addition, the researchers suggest that the local authorities of Malaysia should make it an exception for the signage that has been put up prior to the implementation of the language policy that prioritises the use of the Malay language in company signage. This is to value the historical heritage reflected in the Chinese-lexes signage. Indeed, these company signs should be preserved as Malaysia is a multiracial and multilingual country and all the put-up signs are important resources for the past, present and future linguistic landscaping studies.

However, the ‘non-compliant’ company signs should not be an issue and it can be solved if the company owners and the officers from the local authorities abide to the standard operation procedure of application and approval of new company signs before they are installed in the public places.

In addition to the Chinese-lexes company names which have been romanised into other languages, the researchers also found a few company names with Chinese lexes which contain the Chinese characters instead of the Romanization of the language. The existence of these few differing cases has shown the language use of business community of Labuan island should be further investigated.

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MOBILE PHONE ADDICTION; AN EMERGING PROBLEM WITH PSYCHOLOGICAL IMPACT ON ARABIAN ADULTS

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Abstract: *Mobile phone use has dramatically increased worldwide, and there is a growing debate whether the overuse of mobile phones can be defined as a form of behavioural addiction with physiological impact on young adults. In this study, we are going to investigate the prevalence of mobile phone addiction among Arabian young adults in Jordan and its' psychological impact, as well as the relationship between specific patterns of mobile phone utilization with mental health issues. This study is cross sectional descriptive study, which used online base self-reported questionnaire. The results revealed that most of the participant 70% experienced more than five mobile phone addictive behaviours. Depression incidence was significantly associated with and predicted by mobile phone addictive behaviours.*

Keywords: Mobile phone addiction; mental health; young adults; depression; anxiety; sleeping disorder.

1. Introduction

During the past few years, mobile phones have become an integral part of our lives (Lin et al., 2015), and they are considered beneficial in the optimization of communication between individuals and in the improvement of marketing (Billieux, Maurage, Lopez-Fernandez, Kuss, & Griffiths, 2015). For example, 93% of people living in the United Kingdom own a smartphone and spend 20 hours per week utilizing them (Kuss et al., 2018). Mobile phone addiction is considered non-chemical behavioural addiction that can be characterized by many adverse consequences, such as craving, inability to control impulse, tolerance (diminished response to the same number of hours), withdrawal, escape from other problems, in addition to negative consequences upon daily life on familial, social, educational, and professional levels (Çağan, Ünsal, & Çelik, 2014; Chóliz, 2012; Walsh, White, & Young, 2010; C.-F. Yen et al., 2009). In comparison, the mean duration of mobile phone usage among Jordanian university students from healthcare faculties was 6.4 hours per day, which is equivalent to 42.8 hours per week (Al-Hadidi et al., 2019), whilst among Australian university students it was found to be 1.5-5 hours per day (James D, Drenn J, 2005). Nonetheless, several drawbacks such as reduction in work efficiency, influence on personal and social skills, sleep and psychological addiction have been linked to mobile phones use (Parasuraman, Sam, Yee, Chuon, & Ren, 2017), especially after the arrival of smartphone devices and internet-based applications (Lin et al., 2015).

Most studies showed that smartphone possession among college-age students is close to 100% (Al-Hadidi et al., 2019; Poushter, 2016). Young adults and adolescents are considered the most vulnerable age group to mobile phone addiction (Kuss et al., 2018), which can be related to their adoption of excessive pattern of dependence on smartphone technology (Gafni & Geri, 2013). The pathological use of smartphone can be explained by incentive sensitization theory, which purposed that addictive behaviour may possibly begin as a process of positive reinforcement and impulsivity (Robinson & Berridge, 1993), in which they initially develop a process of mood enhancement by enjoying and craving positive aspects of the compulsory behaviour such as notification checking. In addition, extraversion pathway which involves social dependence-related symptom is considered to be a major cause of mobile phone addiction (Billieux et al., 2015; Elhai, Dvorak, Levine, & Hall, 2017). Ultimately, those individuals might experience negative mood when not engaged in these behaviours for a certain period of time (Elhai et al., 2017).

The aim of this study is to investigate the prevalence of mobile phone addiction among Arabian young adults in Jordan and its' psychological impact, taking into consideration the pattern of mobile phone use, which can help in elaborating the risk factors for developing improper patterns of mobile phone use, as well as the relationship between specific patterns of mobile phone utilization with mental health issues.

2. Literature Review

The phrase “no mobile phobia” is a good way to describe the attachment people have with their phones. One study found that both genders almost indifferently suffer from phobia of losing their phone, and 9% feel stressed when their mobile phones are off. The study sampled 2,163 people. Most of them mentioned keeping in touch with friends or family or work as the main reasons that they got anxious when they could not use their mobile phones (Katharin.B, 2008).

Other studies have been coming out with connections between depression, sleep quality and excessive mobile phone use; It has been reported that sleep construction is affected by reducing rapid eye movement (REM) sleep, slow-wave sleep, and sleep efficiency, or that the bright light of the screen may affect the melatonin secretion by changing the cycle of secretion or suppression of secretion and therefor delay the onset of sleep (Adams & Kisler, 2013). Moreover, students whose sleep is disrupted because of technology use may be more likely to experience markers of depression (Dworak, Schierl, Bruns, & Struder, 2007).

In a cross-sectional study done in King Saud University, at Riyadh, the capital of Kingdom Saudi Arabia, it was noted that people with mobile phone addiction; according to an electronic self-administered questionnaire and the problematic use of mobile phones (PUMP) scale, are at high risk to skip meals, neglect self-hygiene and reduce physical activity which are all considered predisposing factors to depression (Alosaimi, Alyahya, Alshahwan, Al Mahyijari, & Shaik, 2016). Another study was conducted through a trial of an imaginary situation, where participants were inhibited from using either mobile phones or social media for two days and testing the development of psychological symptoms by the Depression Anxiety Stress Scale (DASS). This study concluded that emotion dysregulation may be associated with psychopathology from losing social media access (Elhai, Hall, & Erwin, 2018).

Moreover, many studies focused on physical discomfort due to mobile phone use; some were concerned of how prolonged use of the phone causes muscle pain and headaches which may affect sleep negatively (Thomé, Härenstam, & Hagberg, 2011). A study conducted in Jordan among a sample of 500 university students showed a significant positive correlation between the duration of mobile phone use and the duration and severity of neck pain (Al-Hadidi et al., 2019). Another study aimed to detect the mobile phone addiction behaviour and awareness on electromagnetic radiation (EMR) among a sample of Malaysian population discussed that the prolonged use/exposure to EMR may cause De Quervain's syndrome, pain on wrist and hand, and ear discomfort, and concluded that one-fourth of the study population (406 participant) had a feeling of wrist and hand because of smartphone usage. (Parasuraman. S. et al, 2017).

Mobile phones are found to be more fascinating to use by the adolescents. Research shows that teenagers are far more likely to become dependent on mobile phones as compared to adults (Nichols & Nicki, 2004; Chóliz, 2010). Sahin et al. found that the time at which the first mobile phone is obtained gives high probability of addictive behaviour to mobile phone use (Sahin, Ozdemir, Unsal, & Temiz, 2013). Young people become attached to cell-phones some of them never turn it off; One out of every three young people never turns off his/her device (Katharin.B, 2008; Mariano Chóliz, Villanueva, & Chóliz, 2009). In the analysis of an Italian study in which 2794 student between 13-20 years old, age was found to be a mild protective factor to problematic mobile phone use (Martinotti et al., 2011), all that gives an indication that the young population are at highest risk of developing addictive behaviours to mobile phone use.

With the evolving use of mobile phones, multiple researchers were trying to include excessive mobile phone use as one of the addictive behaviours in the new DSM-V criteria (Regier, Kuhl, & Kupfer, 2013), however, DSM-V didn't include it in its new release in 2013 but included other addictive behaviours like gambling and internet gaming. These previously mentioned addictive behaviours were compared to excessive mobile phone use (Lesieur & Blume, 1987; Nichols & Nicki, 2004; Tejeiro Salguero & Morán, 2002), and in some studies, they used evidenced cost, number of calls or messages sent, and interference with other activities in daily life, to describe the use of mobile phones among other addictive behaviors in the sense used by the Diagnostic and Statistical Manual for Mental Disorders-fifth Edition-Text Revision (DSM5; American Psychiatric Association, 2013) in its definition of substance abuse (M Chóliz, 2012).

3. Methods

3.1 Study Design

This study is cross sectional descriptive study, which used online base self-reported questionnaire. A total of 3534 internet users between the ages of 12-77 years old from different Jordanian governorates; Amman, Irbid, Balqa, Zarqa, Madaba and Karak, completed the self-administered questionnaires between November, 2018 and January, 2019. Convenience sampling technique was used to select the respondents in the study, who were contacted using messaging social media applications. Information about the purpose of the study, what information participants are expected to fill, the significance of the study, anonymity, and confidentiality of the study were explained and assured at the first page of the online questionnaire. Researcher's contact information was given also to enable participants to inquire, and all their questions have been answered.

3.2 Instruments

The data were collected using the Arabic version of the selected tools; Test of Mobile Phone Dependence and Mobile Phone Use Survey, (Beck Depression Inventory, Generalized Anxiety Disorder (GAD-7) scale, Sleep disturbances instrument). The WHO guidelines for translation and tool adaptation were used. The tools were as follows:

1. Test of Mobile Phone Dependence was adapted from the study “Mobile-phone addiction in adolescence: The Test of Mobile Phone Dependence (TMD), by Chóliz M (M Chóliz, 2012) it took into account the dependence criteria of DSM-IV-TR for dependence disorder. The second tool used to build the questionnaire ; Mobile Phone Use Survey was concluded from “ Psychological Predictors of Problem Mobile Phone Use” study by Adriana Bianchi and James G. Phillips (Bianchi & Phillips, 2005); consisted of three sections addressing (a)demographic details (age, gender, level of education, and income range), (b) mobile phone usage (duration of since having the participant’s first mobile phone, the time spent using the phone /day , time spent sending and receiving text messages (Short Message Service [SMS]) and time spent on calls, and (c) problem usage. The questions covered the issues of tolerance, escape from other problems, withdrawal, craving, and negative life consequences in the areas of social, familial, and work difficulties. These questions included issues such as a person’s loss of control over their amount of mobile phone usage and time spent on mobile phone–related activities.
2. Beck Depression Inventory used to explore level of depression among participants. It consists of 21 items, response which was rated according to 4-point Likert-type scale (multiple-choice self-report inventory, choses scores ranged from 0 to 3) with a range in total score from 0 to 63. Total Scores categorized as following; no depression (0-14); mild depression (15-19); moderate depression (20-28), severe depression (29-63).
3. Generalized Anxiety Disorder (GAD-7) scale used to assess the level of anxiety among participants. It consists of 7 items, response which was rated according to 5-point Likert-type scale (1= Not at all sure; 2= rarely; 3=sometimes; 4=usually; and 5=always) with a range in score from 0 to 35, higher scores mean greater severity of anxiety.
4. Sleep disturbances will measure by using the DSM-5 Level 2-sleep disturbance adult measure is the 8-items PROMIS sleep disturbance short form that assesses perceptions of sleep quality, restoration, and sleeps depth associated with sleep. This includes perceived difficulties and concerns with getting to or staying asleep, as well as perceptions of the adequacy of and satisfaction with sleep (PHO, 2012). Each item asks the patient to rate the severity of the patient’s sleep disturbance during the past seven days. This scale contains eight items, response, which was rated according to 5-point Likert-type scale (1=never; 2=rarely; 3=sometimes; 4=often; and 5=always) with a range in score from 8 to 40, higher scores mean greater severity of sleep disturbance. The PROMIS scale that will be used to determine sleep disturbances gives us the most accurate and precise results, which are better than longer scales that are usually used in researches on sleep (Yu et al., 2011).

3.3 Statistical Analysis

SPSS version 22.0 software (SPSS Inc., Chicago, Illinois, USA) was used for analyzing collected data. We applied descriptive statistics as Mean (\pm standard deviation) for continuous variables, while frequency and percent were used for nominal variables. Independent sample t-test, chi-square (χ^2), and multiple linear regression tests were used for investigating statistical correlations, and a p-value below 0.05 was adopted for statistically significant correlations.

4. Results

4.1 Demographics

A total number of 3543 participants completed the online questionnaire, most of them 69.1% (n= 2448) were females while 30.9% (n= 1095) were males. The sample mean age was 23.7 (SD= 7.5), and the mean monthly income was 343 (SD= 16707.8) In regard to samples' education level, 89.2% (n=3166) were at bachelor's degree, 2.3% (n= 83) were at diploma degree, 7.9% (n= 279) were at school, and only 0.6% (n= 20) could read and write only. Most of them were not smoker 90.3% (n= 3200), 9.7% (n= 343) were smokers, and 3.4% (n= 119) quit smoking soft at least six months. Regarding alcohol consumption, most of them did not use alcohol 69.8% (n= 2473), 26.8% (n= 951) were alcohol users, and 3.4% (n= 119) were using alcohol in little amounts and rarely.

4.2 Psychological Parameters

This study explored depression level, anxiety level, and sleep disturbance severity among the selected sample. The results showed that the mean depression level was 14.4 (SD= 10.1); 19% (n= 672) of the sample were having mild level of depression, 17.2% (n= 610) have moderate level, and 10% (n= 354) have high level. Regarding anxiety levels, results revealed that mean anxiety level was 18.7 (SD= 7.9); 14.8% (n= 526) of the sample were having mild level of anxiety, 21.6% (n= 766) have moderate level and 63.5% (n= 2251) have high level. Regarding sleep disturbances severity, results showed that the mean sleep disturbances severity was 20.1 (SD= 4.7); 10.9% (n= 387) of the sample were having low sleep disturbances severity, 2.8% (n= 98) have moderate severity and 0.1% (n= 5) have high severity.

4.3 Phone Addictive Behaviours

This study explored some of internet phone use behaviours; the results revealed that the majority of the participant 91.2% (n= 3232) carry their phones with them all the time. And 56.9% (n= 2017) were experiencing criticisms from their families and friends regarding their use of phone. In addition, 69.2% (n= 2453) of them were feeling lost when their phones are not with them. Fortunately, only 28.5% (n= 1010) was feeling anxious when they can't check their phones. Despite that the majority of participants 93.6% (n= 3317) reported that they use phones only in their free time, 76% (n= 2694) used their phones more time than they planned. Regarding productivity, 44.1% (n= 1563) of them agreed that their productivity level decreased significantly after using phones. While 73.4% (n= 2600) reported that they check their phones repeatedly for notification, 65.5% (n= 2321) tried to stop themselves from checking their phones repeatedly for notification, and only 28.7% (n= 1017) tried to hide their phone use.

Furthermore, 41.6% (n= 1473) reported that they feel that they have new notification while there is not. Regarding getting likes for posts and pictures on social media, only 23.8% (n= 842) feel sad when their post did not get enough likes. It is interesting to note that 40.2% (n= 1425) do not mind sharing their personal information and pictures on social media, and 38.4% (n= 1360) could express their feelings and thoughts better on social media than real life.

4.4 Psychological Variables

Regarding sleep health, 61.9% (n= 2193) delay their sleep because of phone use, and 84.8% (n= 3004) check their phone in the first half-hour after waking up in the morning. In addition, 44.7% (n= 1582) revealed their phone in dangerous situations (driving, crossing roads, etc.). Furthermore, 62% (n= 2196) agreed that their urge to phone use increased by time, 60.7% (n= 2151) can't stop using the phone at the moment after beginning. While most of them 68.6% (n= 2431) reported that they could not tolerate daily life without their phones, only 35.1% (n= 1245) did not get annoyed from others' criticisms.

4.5 Bivariate Analysis

An independent sample t-test was conducted to examine differences in depression, anxiety, and sleep disturbances related to their the selected phone addictive behaviors; Carry phone all the time; Feeling lost; Anxious when not able to check phone; Using phone in free time; Using phone more than intended; Productivity decreased; Hide using phone; Recurrent phone checking; Try to stop checking; Feel of new notification when there is not; Feel sad when have little "likes" on social media; do not mind sharing personal information; Better feeling and thoughts expression on social media; and Being criticized by family and friends. The analysis showed that there was no significant ($p > 0.05$) difference in anxiety level between the presence or absence of any of the aforementioned phone addictive behaviours. Also, there was no significant ($p > 0.05$) difference in sleep disturbance level between the presence or absence of any of the phone addictive behaviours previously mentioned. But there was significant ($p < 0.05$) difference in depression level between the presence or absence of anxiousness when not able to check phone ($t = -2.4, p = 0.02$); Using phone in free time ($t = -2.4, p = 0.02$); Productivity decreased ($t = -3, p = 0.003$); Hide using phone ($t = -5.3, p < 0.001$); Feel of new notification when there is not ($t = -2.1, p = .03$); Feel sad when have little "likes" on social media ($t = -4.9, p < 0.001$); Better feeling and thoughts expression on social media ($t = -2.5, p = .01$); Do not mind share personal information ($t = -4.3, p < 0.001$); and Being criticized by family and friends ($t = -2.7, p = 0.007$). Moreover, results indicated that those who practice these phone addictive behaviours are more likely to develop depression.

4.6 Regression Analysis

Multiple linear regression was conducted to predict depression development based on the phone addictive behaviours that showed a difference between its presence and absence. These behaviours are Anxious when not able to check phone, Using phone in free time, Productivity decreased, Hide using phone, Feel of new notification when there is not, Feel sad when having little “likes” on social media, Better feeling and thoughts expression on social media, Do not mind share personal information and Being criticized by family and friends. A significant regression equation was found $F(14, 3541) = (5.11, p < 0.001)$, with an R^2 of 0.02. Depression development was significantly predicted by Using phone in free time (Beta = 0.04, $p = 0.009$), Productivity decreased (Beta = 0.04, $p = 0.04$), Hide using phone (Beta = 0.06, $p = 0.001$), and Feel sad when have little “likes” on social media (Beta = 0.05, $p = 0.004$). The overall model fits $R^2 = 0.02$, which means this model predicts 2% of depression development among those who have phone addictive behaviours.

5. Discussion

The results showed that 76% of the sample were experiencing more than five of the phone addictive behaviour, which indicated a high level of phone addiction among them. This could be related to the fact that Smartphones are light, portable, and handiness, so people could take and use them anywhere and satisfy compulsions at any time. Also, as happens with drugs, using smartphones can trigger dopamine release in the brain and deliver a temporary feeling of pseudo pleasure. In addition, tolerance is promptly developed; thus, phone users will spend more time on the phone to receive the same first pseudo pleasurable reward. Moreover, considering that the sample in this study is young, many reasons could be behind their phone addiction. One of these reasons is interpersonal and intrapersonal complexities, for instance, impaired social interaction, social isolation, low self-esteem (Ebeling-Witte, 2007.; Leung, 2006). Social media propose a more comfortable and safe replacement for those people with the above-mentioned complexities to avoid rejection and social anxiety (Young, 2007).

This study also aimed to explore the level of anxiety, depression, and sleep disturbances among those who are vulnerable to phone internet addiction. The results revealed that 46% of the sample was suffering from depression, and most of them were at a low level. In addition, only 13.8% of the sample suffered from sleep disturbances, and most of them were at a low level. Whereas all the sample reported that they suffer from anxiety, and almost 70% of them have a high level of anxiety. Thus, anxiety was common among those who showed phone internet addictive behaviours. This is possibly explained by the fact that using phones activates a positive feedback loop (Cheever, 2014). This means that phones keep their users' brains in a constant state of anxiety, and the only way to cure this anxiety is by using the phone more and more. This result is supported by many previous studies that showed that anxiety is common and prevalent with phone addiction (Cheever, 2014). But also, these studies showed that depression and sleep disturbances are also common with phone addiction while this study did not. This difference could be due to different sample and sampling method, or due to cultural differences. Previous literature showed that high mobile phone use was linked to sleep difficulties and depression after a one-year follow-up and even after excluding participants with baseline mental health issues (Thomé, Härenstam, & Hagberg, 2011). However, it has been purposed that the relationship is bidirectional, where smartphone use drives psychopathology, and as a coping mechanism, psychopathology further drives additional problematic mobile phone use (Hong, Chiu, & Huang, 2012; Van Deursen, Bolle, Hegner, & Kommers, 2015; J.-Y. Yen et al., 2012).

Despite that, depression prevalence among the selected sample was low, but results showed a significant positive correlation between depression and mobile phone use. In which the more the person uses a mobile phone, the more likely to develop depression. Moreover, the prediction model revealed that certain addictive behaviour is responsible for 2% of depression development. These behaviours are; using a mobile phone in free time; decreased productivity; hiding mobile phone use; Feel sad when having little “likes” on social media.

6. Recommendation

This study provides significant data regarding the impact of mobile phone use on depression, anxiety, and sleep disturbances. Young people have low awareness level about mobile phone addiction-related health issues due to cultural issues and young age. This lack of awareness caused mobile phone addiction behaviours to complicate and become more severe, thus increasing the incidence of mobile phone addiction disorder. This study results could help mental health professionals to offer mental health-related education regarding mobile phone addiction risk factors, effects, complications, and treatment options.

In addition, people prefer non-pharmacological options such as behavioural therapy, cognitive behavioural therapy, relaxation techniques, and anger management training, rather than pharmacological ones. So, a better understanding of the problem will help mental health workers to plan and implement better primary and secondary non-pharmacological care to prevent and treat those who are at risk or who are having mobile phone addiction. Preventing and treating mobile phone addiction behaviours will help elevate discomfort that is associated with them, and thus enhance their overall psychosocial wellbeing.

As mentioned before, the risk of mobile phone abuse increases with those with interpersonal and intrapersonal difficulties. Thus, the results of this study can be utilized by policymakers at the universities and other educational institutions in Jordan to encourage extra curriculum activities such as (art, community services, sports ...etc.). Also, facilitate the development of adventure playgrounds, community playgrounds, gyms, art centres, and community activities in a feasible and accessible way. This could encourage young people to use their free time efficiently, increase socialization skills, develop talents, increase self-esteem, decrease negative emotions (ex. anxiety, depression, loneliness), and thus decrease mobile phone abuse.

7. Ethical Compliance

All procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional research committee and with the 1964 Helsinki Declaration and its later amendments or comparable ethical standards.

8. Funding

Authors declare that this research was not funded by any educational, non educational or research organization.

9. Informed Consent

Information about the purpose of the study, what information participants are expected to fill, the significance of the study, anonymity, and confidentiality of the study were explained, and the right to refuse participating in the study or withdrawal from participation at any time were assured at the first page of the online questionnaire. Completing the questionnaire considered as agreeing to participate in this study. Researcher's contact information was given also to enable participants to inquire, and all their questions have been answered.

10. Compliance with Ethical Compliance

Before data collection beginning, IRB from the medical school at the university of Jordan and from the deanship of scientific research at the university of Jordan was guaranteed.

11. Conflict of Interest

Authors have no conflict of interest to declare.

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THE IMPACT OF COVID-19 PANDEMIC ON EMPLOYEE PERFORMANCE IN PT PEGADAIAN (PERSERO), MODERATED BY INDUSTRY 4.0 BASE TECHNOLOGIES

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Abstract: *The COVID-19 pandemic has impacted how employees work with the implementation of a work-from-home policy. This adjustment in working practices is essential for the company to maintain its employees' performance. This work-from-home policy is supported by the presence of industry 4.0 technologies, which reduces the risk of COVID-19 work implications. This research focuses on financial services companies, with respondents being employees of PT Pegadaian (Persero) who worked remotely during the COVID-19 pandemic. This research has two purposes. First, the researchers examined the impact of COVID-19 on employee performance. Second, the researchers examine the moderating effect of industry 4.0 technologies on the link between COVID-19 work implications and employee performance. The final research has shown that COVID-19 work implications (job insecurity, home office environment, and virtual connection) are positively correlated with employee performance. Then, the moderation of Industry 4.0 base technologies strengthens this relationship.*

Keywords COVID-19, Industry 4.0, Employee Performance, PT Pegadaian (Persero).

1. Introduction

WHO states that COVID-19 has become a worldwide pandemic (WHO, 2020). Everyone is recommended to wear a mask and keep a distance during this COVID-19 pandemic. In Indonesia, this is accomplished through the PSBB (Large-Scale Social Restriction) policy, which entails restricting non-essential activities outside the home. This also has an impact on the regulations of several companies in Indonesia to require their employees to work from home. Management, worker leaders, and human resources teams are very worried about changes in employee work habits because this affects employees' mental, cognitive, physical health, which ultimately affects their performance (Graves and Karabayeva, 2020).

Changes in work habits that affect employee performance are still being debated, as these can have both positive and negative impacts. According to Deloitte's report, production decreased by 46% during the COVID-19 pandemic (Boichenko and Tymchenko, 2020). This is because of the heavy workload, inadequate facilities, and strained relationships between managers and employees, and the struggle develops trust with coworkers (Graves and Karabayeva, 2020). On the other hand, HSBC discovered that working remotely has a positive impact on worker productivity when compared with the financial benefits (HSBC, 2017). Working remotely enables employees to work from anywhere, saves time by eliminating the need for travel, and most importantly, allows employers to hire people from all over the world, increasing productivity (Graves and Karabayeva, 2020).

The current industry 4.0 technology allows workers to work virtually. Industry 4.0 technology is used as a moderating variable by researchers in the relationship between COVID-19 work implications and employee performance. The rate at which a business renews its technology has an effect on its success (Martínez-Caro et al., 2020). Existing technology will be efficient when combined with the ability of workers to use it productively and will increase the end result. This implies that employees who effectively use technology may get information more quickly and correctly, thus streamlining work time (Khanam & Mahfuz, 2017; Sriyakul et al., 2019; Theresia et al., 2018). According to the Corporate Finance Institute (2021), industry 4.0 technologies such as artificial intelligence (AI), machine learning (ML), big data, data analytics, and robotic process automation (RPA) are used in financial services. In financial services, technologies such as AI and machine learning are used for credit scoring, fraud detection, and wealth management. Credit scoring is based on consumer transaction records such as their preferences, spending patterns, and investment behaviors. This data is stored in data warehouses (Big Data) and used for fraud detection and marketing strategies. Employees at PT Pegadaian (Persero) branches collect data using Robotic Process Automation (RPA), a platform that automates manual operations and repetitive tasks such as email marketing, chatbots, and transaction management. Prior literature has shown that industry 4.0 technologies have a moderating impact on employee performance (Narayanamurthy and Tortorella, 2021).

The company's performance declined along with the pandemic of COVID-19. The decrease in buyer demand is one of the reasons contributing to the company's revenue decline. PT Pegadaian (Persero) itself reported a 34.93% decline in profits in 2020 over 2019 (PT Pegadaian (Persero) Annual Report, 2020). The company is also confronted with the new policy on working from home. Workers must maintain their performance when working from home in order for the company to increase company profits. Employees are expected to maintain their current levels of performance and to continue working in order to prevent the company's profits from declining in the future.

Three factors will be examined in this study: the work implications of COVID-19 as an independent variable, employee performance as a dependent variable, and industry 4.0 base technologies as a moderating variable. The period of data collection from respondents is done within one week. This research was conducted at the head office of PT Pegadaian (Persero) in Indonesia. The head office was chosen because it serves as the basis for all of the company's policies and strategies affecting all of the company's branches that generate revenue. This selection demonstrates the effect of the company's policies and strategies on its branches. There are two criteria for respondents. First, respondents are employees of the head office of PT Pegadaian (Persero). Second, respondents work from home and have access to industry 4.0 technologies at the company. The following tests are conducted: (1) the impact of COVID-19 work implications as an independent variable on employee performance as the dependent variable, (2) moderation of industry 4.0 base technologies on the relationship between COVID-19's work implications and employees' performance.

2. Literature Review

2.1 COVID-19's Work Implication

COVID-19 has three work implications that affect employee performance: job insecurity, home office environment, and virtual connection (Narayanamurthy and Tortorella, 2021). According to Narayanamurthy and Tortorella (2021), the working implications of COVID-19 are examined with three aspects:

1. **Job Insecurity:** Numerous businesses are experiencing a significant loss in demand, which has resulted in a decrease in company income and has affected the reduction of employee numbers in the majority of countries (Nicola et al., 2020). This factor variable is examined through job insecurity, which is influenced by employee fear of losing their job position as a result of the COVID-19 pandemic (Narayanamurthy and Tortorella, 2021).
2. **Home Office Environment:** The COVID-19 pandemic has pushed companies to take action to prevent the virus from spreading among their employees. As a result of this action, the corporation implemented a work-from-home policy, which resulted in a change in work habits (Nicola et al., 2020). Changes in employees' work habits must be carefully evaluated by the company to ensure that employees are comfortable working from home and therefore do not negatively affect their performance. This factor variable examines the influence of working from home policies on the home office environment during the COVID-19 pandemic.
3. **Virtual Connection:** During this COVID-19 pandemic, communication is the activity that has the most effect on working activity (Narayanamurthy and Tortorella, 2021). Face-to-face meetings are being phased out in exchange for face-to-face online platforms. This enables employees to continue working remotely and helps ease the difficulties associated with the communication.

2.2 Employee Performance

Companies require employee performance assessments to help them advance their employees' careers. The assessment in concern is to know the workers' strengths and limitations, and the company can use the results to determine compensation, promotions and to examine the workers' behavior patterns (Kehoe & Wright, 2013). Employee performance is based upon consistency and quantity, production methods, and regulations (Wayne and Ferris, 1990). There are five ways of evaluating employee performance (Wayne and Ferris, 1990):

1. Job Knowledge: An individual's level of job knowledge has an effect on the consistency and quantity of their work.
2. Initiative: When a problem emerges, the individual is able to quickly analyze the situation and take appropriate action.
3. Mental proficiency: Individuals are expected to perform tasks quickly and accurately; they are also expected to adjust their work processes to the dynamics of the situation.
4. Attitude: Motivation and a proactive attitude to accomplishing work duties. Individuals are expected to demonstrate a positive attitude and motivation when completing work duties.
5. Job performance: Individuals are evaluated based on their level of discipline and attendance at work.

2.3 Industry 4.0 Base Technologies

The existence of industry 4.0 technology enables companies to offer high-quality products and services, evaluate sales, and develop marketing strategies. The technologies proposed by Frank et al. (2019) were utilized and verified by Narayanamurthy and Tortorella (2021), namely Cloud Computing, Internet of Things, Big Data, and Machine Learning.

PT Pegadaian (Persero) sets its future objectives in the 2019 RKAP (Company Work Plan and Budget), with a focus on developing digitalization throughout the organization with the goal of being the Best Digital Financial Company. One of the strategies focused on is developing information management that focuses on digitizing the marketing system and business processes (PT Pegadaian (Persero) Annual Report, 2020).

PT Pegadaian (Persero) has several industry 4.0 technologies in company digitalization:

1. Cloud Computing: PT Pegadaian (Persero) provides corporate email and cloud-based applications as a virtual communication tool for its employees.
2. Internet of Things (IoT): This technology enables real-time input of activities from each division. Each work division has access to firm information via the Internet of Things; this technology integrates data from each business unit that is input in real-time by employees.
3. Big Data: Employee data is stored in the company's big data, which is utilized to provide employees with the information they need to make good decisions.

2.4 Conceptual Framework

This research uses three variables: COVID-19 work implications, employee performance, and industry 4.0 technologies. The framework below provides a description of the correlation of each variable.

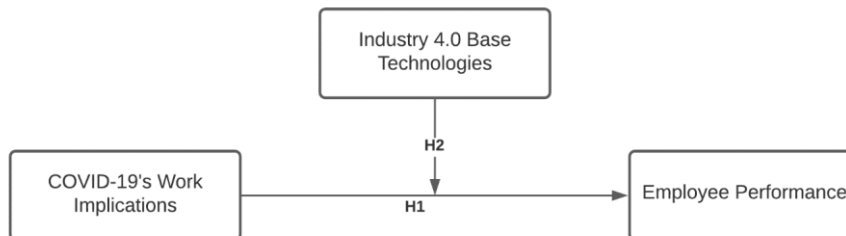


Figure 1: Conceptual framework

Below are the hypotheses explained from the conceptual framework:

Hypothesis 1. COVID-19's work implications are significantly correlated with employees' performance in PT Pegadaian (Persero)

Hypothesis 2. Industry 4.0 base technologies moderate the relationship between COVID-19's work implications and employees' performance in PT Pegadaian (Persero)

3. Methodology

3.1 Instruments

3.1.1 Samples

This research used a random sample method with two respondent criteria. First, respondents are employees of the head office of PT Pegadaian (Persero). Second, respondents work from home and have access to industry 4.0 technologies at the company. These two criteria serve as the foundation for the framework of this research. The purpose of this research is to determine criteria in order to describe PT Pegadaian (Persero) using a sample of respondents. The researcher determined the sample size using the Cochran procedure. The head office has a population of 1,250 employees, whereas the total population of PT Pegadaian (Persero) permanent employees is around 14,237. Figure 2 illustrates the sample calculation in full depth.

3.1.2 Site

This research was conducted at the main office of PT Pegadaian (Persero) in Indonesia. Profit declined along with the outbreak of the COVID-19 pandemic, decreasing demand, and the implementation of a work-from-home policy (PT Pegadaian (Persero) Annual Report, 2020). The head office was chosen because it serves as the basis for all of the company's policies and strategies affecting all of the company's branches that generate revenue. This selection demonstrates the effect of the company's policies and strategies on its branches.

3.1.3 Procedures

The researchers collected primary data for analysis utilizing quantitative methodologies with an online questionnaire. The following tests are conducted: (1) the impact of COVID-19 work implications as an independent variable on employee performance as a dependent variable, (2) moderation of industry 4.0 base technologies on the relationship between an independent variable and dependent variable, (3) recommendations. A four-point Likert scale is used to determine the reference score. The total score for COVID-19 work implications is between 12 and 48, Employee Performance is between 12 and 48, and Industry 4.0 base technologies is between 6 and 24.

COVID-19 work implications are independent variables and have three-factor variables with the direction of the questionnaire for job insecurity is negative, home office environment and virtual connection are positive. The raw data is converted to a positive direction in order to calculate the COVID-19 work implications. The dependent variable, namely employee performance, was used to examine this independent variable. Employee performance is determined by five variables, which all have a positive direction, and hence the raw data can be used directly. Industry 4.0 technologies act as a moderating variable in the relationship between COVID-19 work implications and employee performance. The researcher will use three basic technologies: (i) big data, (ii) Internet of Things, and (iii) cloud computing. Narayanamurthy and Tortorella (2021) suggested and validated this technology.

The sample size is determined using the Cochran procedure. The head office has a population of 1,250 employees, whereas the total population of PT Pegadaian (Persero) permanent employees is around 14,237. The calculation is carried out with a proportion of 8.8% and 95% confidence level (5% margin of error) so that a minimum sample of 123.07 is obtained (rounded to 124 people).

$$n_0 = \frac{Z^2 \times p \times q}{e^2} = \frac{(1,96)^2 \times 0,088 \times (1 - 0,088)}{0,05^2} = 123,07$$

Figure 2: Sample formulation

3.2 Data Analysis

3.2.1 Validity and Reliability

A validity test was conducted to evaluate the constructed variable with correlation (r). The r-value is compared to the numbers in the r table; if the r-value surpasses the r table, the instrument is declared valid. The reliability test was used to determine the construct variable's consistency. Cronbach alpha is used to measure reliability, with 0.6 thresholds indicating a favorable response to reliability.

3.2.2 Classical Assumption Test

In quantitative research, the classical assumption test is used. This is required to ensure that the research's findings are representative of the population. The researcher conducted the classical assumption test using IBM SPSS 26. The following assumptions must be met:

1. There is a linear relationship between the independent and dependent variables (Linear Relationship)
2. Residuals must be distributed normally (Normality)
3. Predictors and moderators must not have any correlation (No Multicollinearity)
4. Error variance similar to predictor values (Homoscedasticity)

3.2.3 Moderated Regression Analysis

The researcher analyzed the data using the IBM SPSS 26 software. The hypothesis is accepted at a 0.05 level of significance. Additionally, the researchers conducted two regressions. First, the researchers examined the relationship between COVID-19 work implications and employee performance using simple linear regression. The researchers designated this Model 1 it included COVID-19 work implications as an independent variable and employee performance as a dependent variable.

Additionally, Model 2 is a computation of the moderating effect of industry 4.0 technologies on the relationship in Model 1. Tests are conducted in order to determine if changes in the R square indicate a strengthening or weakening of the relationship between the dependent and independent variables.

4. Results and Discussion

4.1 Validity and Reliability of the Instrument

The instrument's validity and reliability were determined using IBM SPSS 26 software. With a 0.05 threshold of significance, 153 samples were used. As a result, each question met the validity criterion ($0.000 \leq p\text{-values} \leq 0.001$). Furthermore, data analysis revealed that all instruments passed the reliability test ($0.656 \leq \alpha \leq 0.908$).

4.2 Classical Assumption Test

The researcher has calculated the classical assumption testing on each questionnaire variable. This test aims so that the tested variables do not distort.

1. The Kolmogorov-Smirnov test for Normality test

The criterion for normality is 0.05. The finding of this research was Asymptotic Significance is 0.200, which is more than 0.05. The normality test was passed on all models tested in this research.

2. Multicollinearity Test

The VIF threshold is more than ten and less than 0,1 for the tolerance value. All tolerance values were passed the multicollinearity test (tolerance ≤ 0.973). Then the VIF value also passed the multicollinearity test ($1.028 \leq \text{VIF}$). All models passed the multicollinearity test.

3. Homoscedasticity Test

The test is carried out to see the scatterplot of the dependent variable SRESID to the ZPRED residual error. If it does not form a certain pattern, the model is accepted. The researcher did not find any pattern after doing the calculations on SPSS 26; therefore, the model passed the homoscedasticity test.

4.5 Research Findings

Table 1: Hypotheses Test Result

| H | Significance | R Square | Result for H |
|---|--------------|----------|--------------|
| COVID-19's work implications are significantly correlated with employees' performance in PT Pegadaian (Persero). | .000 | 14.1% | Accepted |
| Industry 4.0 base technologies moderate the relationship between COVID-19's work implications and employees' performance in PT Pegadaian (Persero). | .451 | 26.2% | Accepted |

4.5.1 COVID-19's Work Implications are Significantly Correlated with Employees' Performance in PT Pegadaian (Persero)

The researchers discovered a significant correlation between COVID-19 work implications and employee performance. With $t\text{-count} > t\text{-table}$ ($4.971 > 1.9758$) and a $p\text{-value}$ of 5% ($0.000 < 0.05$), Hypothesis 1 is accepted. The findings of the research demonstrate that for every unit increase in COVID-19 work implications, the value of employee performance increases by 0.569. This finding is based on a 5% alpha threshold of significance. As a result, COVID-19 work implications are positively correlated with employee performance.

The findings of this study indicate that the work implications of COVID-19 have a positive correlation with employee performance at PT Pegadaian (Persero). According to these results, the COVID-19 pandemic affected employee performance by causing changes in work habits. Financial services firms such as PT Pegadaian (Persero) must adapt their policies and strategies rapidly during these challenging times. Narayanamurthy and Tortorella (2021), Bloom (2014), and MacEachen et al. (2008) have all previously shown that remote employees are more productive. PT Pegadaian (Persero) employees can adapt to changes brought about by the COVID-19 pandemic. The company's infrastructure enables its workers to adapt to unforeseen changes, such as the work-from-home policy.

4.5.2 Industry 4.0 Base Technologies Moderate the Relationship Between COVID-19's Work Implications and Employees' Performance in PT Pegadaian (Persero)

Findings from the calculations show that industry 4.0 base technologies as a moderating variable were found to strengthen the relationship between the independent variable (COVID-19 work implications) and the dependent variable (employee performance). Based on the R square value in Model 1 obtained by 14.1% and R square in Model 2 (MRA) obtained by 26.2% so that it can be concluded that the presence of moderating variables can strengthen and increase the influence of the COVID-19 work implication variable on employee performance. Therefore, H2 can be said to be accepted because it is able to moderate. The t-count is less than the t-table ($-0.756 < 1.9758$) and the probability (p-value) is greater than 5% ($0.451 > 0.05$).

The findings of this research indicate that industry 4.0 technology strengthens the relation between COVID-19 work implications and employee performance. Industry 4.0 technology enables work consistency by facilitating communication between employees and the exchange of information (Frank et al., 2019; Shou et al., 2019). This technology may assist workers in making decisions and enhance the overall quality of their work. Researchers characterize managers as having a solid understanding of industry 4.0 technologies and using them in ways that positively affect employee performance in the context of the COVID-19 pandemic-related changes in work habits.

5. Conclusion

Changes in work habits caused by the COVID-19 pandemic have forced employees to do their jobs with new ways of working and communicating. Policies set by the government such as PSBB (Large-Scale Social Restrictions) and PPKM (Enforcement of Restrictions on Community Activities) state to limit social interaction between individuals. This ultimately has an impact on the Indonesian economy. Every sector is affected by this COVID-19 and especially for companies that are obliged to employ their employees from home. New challenges for the company are unavoidable, such as maintaining employee performance. Researchers conducted this study as an initial consideration of the changes in work habits caused by the COVID-19 pandemic on employee performance. According to research, responding to RQ 1 demonstrates a positive correlation between COVID-19 work implications and employee performance. The first factor in the COVID-19 work implications is the virtual connection. The need to communicate virtually is the first work impact that occurred after the implementation of the work from home policy. Meetings through online platforms such as Zoom and collaborative work via cloud-based apps are standards that companies must satisfy by providing facilities and training for usage. The next factor is the home office environment. The comfort of working at home is needed to maintain employee performance. Employees need a peaceful and pleasant area near their workplace in order to concentrate and focus on their work. Additionally, the infrastructure of employees at home must be met in order for workers to work comfortably. The last factor is job insecurity. Job insecurity refers to an employee's fear of losing their job. Some feel their job division has no future; others fear being demoted, permanently fired, or perhaps pushed into early retirement. This situation, which they have no control on, results in job insecurity. Management needs to pay more attention to employees' fear of their job.

Additionally, this research examines the effect of moderating industry 4.0 base technologies on the relationship between COVID-19 work implications and employee performance. RQ 2 answered that industry 4.0 base technologies are strengthening the relationship between COVID-19 work implications and employee performance. According to the Corporate Finance Institute (2021), industry 4.0 technologies such as artificial intelligence (AI), machine learning (ML), big data, data analytics, and robotic process automation (RPA) are used in financial services. In financial services, technologies such as AI and machine learning are used for credit scoring, fraud detection, and wealth management as is also used for credit scoring at PT Pegadaian (Persero). Credit scoring is based on consumer transaction records such as their preferences, spending patterns, and investment behaviors. This data is stored in data warehouses (Big Data) and used for fraud detection and marketing strategies. Employees at PT Pegadaian (Persero) branches collect data using Robotic Process Automation (RPA), a platform that automates manual operations and repetitive tasks such as email marketing, chatbots, and transaction management. PT Pegadaian (Persero) can expand its usage of artificial intelligence and machine learning to detect fraud and wealth management from its consumers; the company already has credit scoring.

This research serves as the management's first indication of the impact on worker performance conditions during the COVID-19 pandemic. The limitations of this research's work implications might be explored further in order to identify more work implications of the COVID-19 pandemic. Future studies may incorporate technologies not included in this study, such as blockchain technology for the financial sector. There is 85.9% of the variance that can be explained again by other variants that have not been covered in this study, such as motivation is recommended for further research.

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WAYS OF IMPROVING ENGLISH SPEAKING FLUENCY VIA TWO PRODUCTIVE SKILLS OF SPEAKING AND WRITING: WHAT PRACTICAL TIPS ARE SUGGESTED?

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Abstract: *Since there is ample and robust evidence on the pivotal role speaking and writing skills fulfill in the appropriation of newly encountered language for speaking, the present research attempted to identify the ways assisted L2 learners in enhancing their speaking fluency through two productive skills of speaking and writing. To this end, following a qualitative research, the most fluent Iranian EFL speakers (17 participants, 10 males and 7 females, aged between 19 and 55) were purposefully recruited for an open interview. The participants were 11 EFL learners in B.A. and M.A. degree at Shiraz University and 6 EFL instructors in English language institutes in Shiraz, Iran. The instrument for selecting the participants was the Speaking Rubric Scale of the Common European Framework of Reference for Languages (2001). The findings disclosed that imitating and repeating, self-talking and singing with songs in front of mirror, verbalizing, voice recording, retelling, chatting via Skype, Role Playing Games (RPG), keeping a diary, and using Twitter, among others were found to be the most contributing factors used by the participants. The role of every single factor in speeding up speech rate, achieving metalinguistic functions, reducing pauses, increasing accuracy, picking up native-like facial expressions and gestures, getting motivated and becoming autonomous was clearly explained and delineated. The findings are expected to provide those who show enthusiasm to advance and master their English speaking fluency with the most practical suggestions and enable them to get their points across fluently in English language both in national and international arenas.*

Keywords: EFL, fluency, productive skills, speaking, writing

1. Introduction

People all around the world have become motivated to learn English to be able to get their points across in transactional and international arenas. It is believed that English is mainly used as a tool for international communication rather than teaching or understanding American or British cultural values (Brown & Lee, 2015). Ur (2012) and Zaremba (2006), however, hold that speaking plays the most crucial role in communication. According to Nunan (1999), successful communication in another language is equal to being able to speak that language. As stated by Luoma (2004), speaking skills not only have a crucial role in the language teaching curriculum, but also, they are an important object of assessment. According to Bailey (2003, p. 48), “speaking is the productive aural/oral skill. It consists of producing systematic verbal utterances to convey meaning”. To Rivers (1981, p.187), an act of speech involves “the selection of integrated patterns of elements of the code for the expression of an intention, and the assembling of the necessary features without undue hesitation.” Furthermore, speaking refers to expressing ideas and messages (Nation & Newton, 2009).

Since fluency plays a key role in speaking its significance needs to be highlighted. Segalowitz (2000) makes a distinction between cognitive fluency and performance fluency. Cognitive fluency refers to “the efficiency of the operation of the cognitive mechanisms underlying performance” and performance fluency concerns “the observable speech, fluidity, and accuracy of the original performance” (p. 202). Fluency is “the rapid, smooth, accurate, and efficient translation of thoughts or communicative intention under the temporal constraints of on-line processing” (Lennon, 2000, p. 26). Baily (2003) defines fluency as using language quickly and confidently, with limited hesitations, unnatural pauses, etc. According to Hedge (1993), it is “the ability to link units of speech together with facility and without strain or inappropriate slowness or undue hesitation” (p. 275). Furthermore, Skehan (1996) believes that fluency is producing the spoken language in real time. He also adds that the spoken language occurs without unnecessary pausing or hesitation. To Richards and Schmidt (2010, p. 222), fluency is “the features which give speech the qualities of being natural and normal, including native-like use of pausing, rhythm, intonation, stress, rate of speaking, and use of interjections and interruptions.” Fluency is also defined by Schmidt (1992) as “the processing of language in real time, rather than with language as the object of knowledge” (p. 358).

One of the most important challenges foreign language learners face, according to Shumin (2002), is to have fluency while speaking. As such, Ghenaati and Madani (2015) argue that EFL learners’ primary aim is to pick up fluency. In line with this, Behroozi and Amoozegar (2014) indicate that Iranian students after graduating from school are not able to speak English fluently. This is due to the reason that teachers pay no attention to improving speaking skill (Salehi and Yunus, 2012) and that Grammar Translation Method (GTM) is dominant in English language classes (Dolati & Mikaili, 2011; Eslami, 2010; Kazemi & Soleimani, 2013; Rahimi, 1996; Saadat, 1995).

Among scholars whose theories influencing speaking, Swain (1985) highlights the role of output. Output, according to Nation and Newton (2009), refers to speaking and writing and as Kumaravadivelu (2006) states “output refers to the corpus of utterances that learners actually produce orally or in writing” (p. 48). Unlike Krashen, Swain (1985) holds that language acquisition does not take place only through input and believes in “pushed-output” meaning that in order for the speakers to be able to talk they should be pushed to produce language, so to her speaking can be developed through speaking. She also holds that pushed-output can help learners to realize the gaps in their language learning process. To Swain (1995), output has three functions: noticing/triggering function, hypothesis-testing function, and metalinguistic function. The noticing/triggering function denotes that when learners use the target language, they face a linguistic problem and their knowledge of the language may help them solve the problem. The hypothesis-testing function recounts that learners test what and how linguistic system works when they receive feedback in their communications with others. The metalinguistic function indicates that using the target language makes learners aware of language forms and rules to utter language correctly and appropriately. Moreover, output, according to de Bot (1996), “plays a direct role in enhancing fluency by turning declarative knowledge into procedural knowledge” (p. 529). Output and its function in language acquisition is backed up by other scholars like Swain and Lapkin (1998), Izumi & Bigelow (2000), and Whitlow (2001).

Considering the significance of output in L2 acquisition, the objective of this study was to determine the role output along with its related skills (i.e. speaking and writing) serve in the development of English language speaking fluency. Hence, this study set out to directly elicit the views of the most fluent EFL speakers to identify the role output fulfills in the development of English language speaking fluency. Accordingly, the following question guided the present research:

RQ. What practical tips are suggested on two productive skills of speaking and writing by the most fluent Iranian EFL speakers to achieve fluency in speaking English?

The findings are expected to provide those who are eager to enhance their English speaking fluency with the most practical suggestions offered by the most fluent EFL speakers. Moreover, the outcome of the study may provide helpful information for curriculum designers, material developers, and language instructors to become aware of the tips put forward by the participants on the role the two productive skills of speaking and writing serve in English speaking fluency.

2. Literature Review

Considering oral repetition as an output performance, Yoshimura and MacWhinney (2007) conducted a study to determine the role oral repetition plays in L2 speech fluency. The participants were thirty Japanese EFL learners at intermediate level who were demanded to perform three tasks of listening, reading aloud, and sentence-retrieval production from memory. The sentences they were required to repeat, contained six known and unknown content words. However, the sentences were understandable for the participants who had to listen to each sentence three times. They had to read every sentence aloud six times and memorize it for repetition and then retrieve it. The outcome revealed that oral practice significantly increased fluency.

Another study was done by Baradaran and Khalili (2009) to examine the effect of online chatting on the EFL learners' speaking fluency. Fifty-two students were divided into two homogenous groups of control and experimental based on a general English proficiency test. The 90-minute class time was divided into two periods: 60 and 30 minutes. Both the CG and the EG had the same course book and had to study it for 60 minutes in the classroom. About the 30-minute period of time, the CG had to practice speaking individually, in pairs or groups in class. The teacher supervised them and corrected their universal errors. However, the EG had to attend the remaining 30 minutes at home, at a specific time, chatting (in voice, text or both) in a specific Internet chatroom in which their presence was controlled by the teacher. An interview as a posttest was done at the end of the 20 sessions of the treatment period. The results of the study revealed that online chatting had a significant impact on the learners' oral fluency.

A piece of research was done by Rachmawaty and Hermagustiana (2010) to examine the effect of retelling technique on fluency development of speaking. The participants were six English students being in a remedial class due to some speaking problems. A total of six reading texts were given to the students. They had to read them for 30 minutes, prepare for a few minutes and then retell the story on their own. Their speeches were recorded, transcribed and then analyzed. Moreover, a questionnaire was given to each participant to discover what speaking strategies they used for the retelling process. A pre- and posttest, similar to the treatment procedure, were also given to them and the results were then analyzed. The findings indicated that retelling affected the students' speaking fluency significantly. In addition, the data from the questionnaires showed that the students made some notes of words, phrases and sentences before retelling and tried to use their own words rather than unfamiliar words in the texts.

To investigate the effect of pushed output on speaking fluency, Sadeghi Beniss and Edalati Bazzaz (2014) conducted a study in which thirty upper-intermediate female English learners were interviewed. 15 participants were randomly assigned in two groups of control and experimental. Unlike the participants in the control group who did not receive pushed output activities, those in the experimental group were pushed to talk in the target language through ask and answer task, retelling, picture description, and storytelling for twelve sessions and then the participants in both groups were interviewed. The findings disclosed that pushed output did not appropriately improve speaking fluency.

With respect to a comparison on the effect of input-based and output-based instruction on productive knowledge of collocations, Gholami and Farvardin (2017), based on the Oxford Placement Test, selected eighty Iranian students with low-intermediate proficiency level. The participants were assigned into one control group and two experimental groups. While the participants in the CG were required to translate collocations from L2 to L1 through traditional instruction, those in the first EG received input-based instruction and those in the second EG received output-based instruction. Twenty collocations were taught. The results of an immediate posttest after the last session of the treatment and a delayed posttest, after two weeks, revealed that the students in both EGs outperformed those in the CG and no significant difference was found between the EGs. In fact, both input-based and output-based instructions were influential in assisting the participants in enhancing their productive collocational knowledge.

In the same line, Jafarpour Mamaghani and Birjandi (2017) conducted a study to identify if oral pushed output has any impact on the learning and retention of English perfect tenses. They administered a pre-test to 22 freshmen who were randomly assigned to control and experimental groups who were taught English perfect tenses for six sessions. After receiving treatment, the participants in the CG were asked to answer multiple choice tests and those in the EG were asked to record their oral performances on picture description and translation tasks. After treatment, an immediate post-test and then after four weeks, a delayed post-test was run. The results supported the impact of oral pushed output on the learning and retention of English perfect tenses.

2.1 Problem Statement

To the best of the present researchers' knowledge, no qualitative research has already identified the facilitating role of speaking and writing skills in improving speaking fluency among the most fluent Iranian EFL speakers. Hence, this gap is attempted to be bridged in the present research.

3. Method

3.1 Participants

The participants included 11 EFL students in B.A. and M.A. degree in English language department of Shiraz university and 6 English language instructors in English language institutes in Shiraz, Iran. The total number of participants, 7 females and 10 males with the age range of 19 to 55, depended on data saturation. The first criterion for selecting the participants, following a qualitative research and purposive sampling, was that they had not lived abroad and they had picked up English language fluency in their home country. Based on a speaking rubric scale, the most fluent English speakers were selected by the English language instructors in the English language department and English language institutes.

3.2 Speaking Rubric Scale

The Common European Framework of Reference for Languages (CEFR): Learning, Teaching, Assessment published by Council of Europe (2001) was chosen to be used as the criterion for selecting the participants. This scale includes the components of range, accuracy, fluency, interaction, and coherence that explain in detail three levels of basic users, independent users, and proficient users. Each level is divided into two subcategories of A1 and A2, B1 and B2, and C1 and C2. A1 refers to the lowest spoken skills and C2 to the highest spoken skills. Each level provides full definitions of A2+ (between A2 and B1), B1+ (between B1 and B2), and B2+ (between B2 and C1). In this study, the participants were chosen according to C1 and C2 levels.

3.3 Interview

Based on the objective of the study, an open interview starting with a single question reflected in the research question was formulated. Following that question, later questions based on the answers provided by the interviewees were raised.

3.4 Data Collection Procedure

To make the researchers aware of the process of research and the probable obstacles they may encounter in data collection procedure in the main research, a pilot study was conducted with three people. The interviews were performed in Persian individually and face-to-face. Each interview lasted for two hours and the participants' anonymity was ensured. First one big question (see the research question) was asked and then based on the participants' replies to that question later probes were followed. All interviews were audio-recorded, transcribed, and then analyzed. The major points in each interview were gathered, classified, and then translated into English. For the sake of credibility and conformability of the data, in case of misunderstanding or lack of enough information, the participants were asked further questions. Then back-translation was conducted. Consensus was reached through peer review or peer debriefing. To obviate miscommunications, member check/participant feedback was employed. The inter-coder reliability was reported to be 0.95.

3.5 Data Analysis Procedure

To analyze the data collected, first different types of questions were tallied and then their corresponding frequencies were reported. The questions types, using content analysis, were identified qualitatively and the results were reported descriptively.

4. Results and Discussion

The data in Figure 1 revealed that the participants enhanced their speaking fluency with the help of speaking and writing.

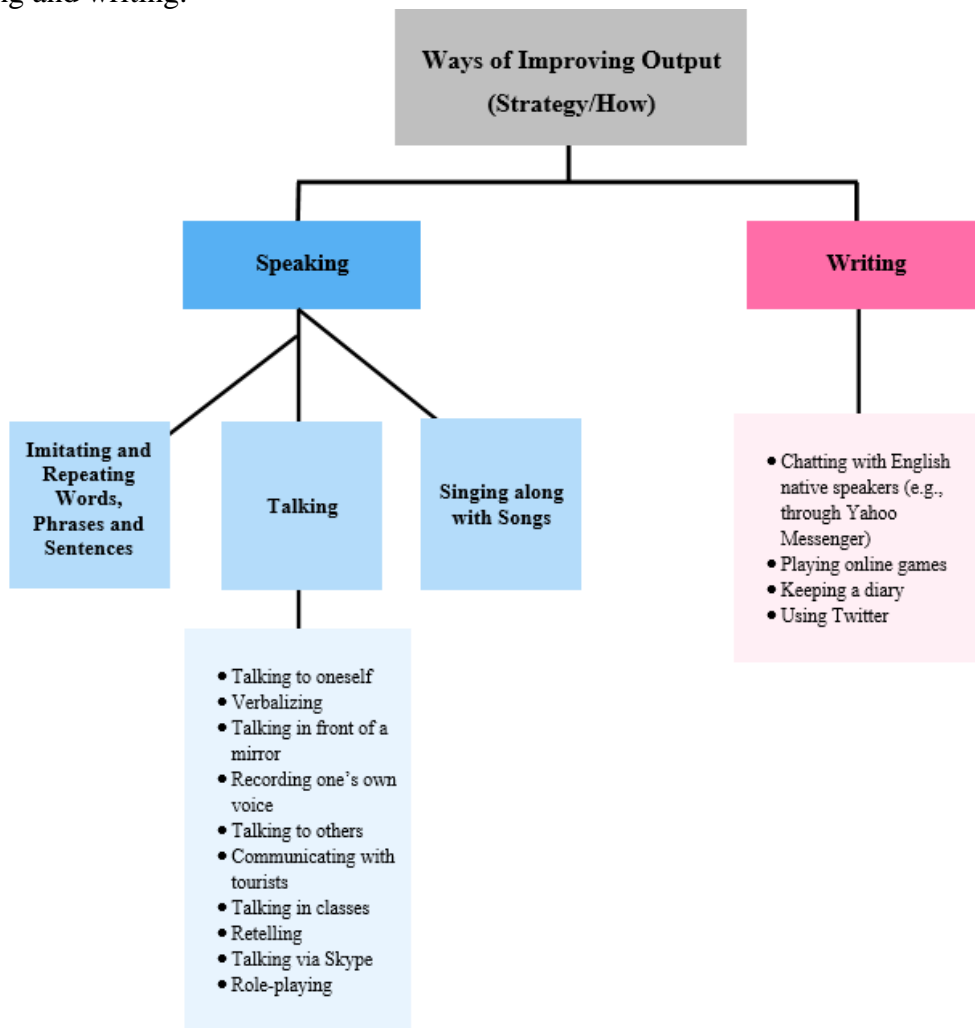


Figure 1. Ways of improving output through speaking and writing

Speaking

There were different ways whereby the participants had developed their fluency. The first one was imitating and repeating words, phrases, and sentences heard in movies, TV series, news, and the like. As they mentioned, imitation and repetition helped them a) pay more attention to the context in which the words, expressions, idioms were used, b) learn English sentence patterns, c) commit the words, slangs, prefabricated phrases to their minds d) speak as naturally and fluently as possible, and e) increase their speech rate. The second way was talking to themselves both loudly and quietly and sometimes in front of mirror, recording their own voices, and verbalizing whatever they would listen to. Moreover, most of them would talk to others, including their siblings, friends (Iranian and non-Iranian), and cousins. Eight of them had experience of communicating with tourists. They found it fascinating, encouraging, and so fruitful in improving their fluency and increasing their self-confidence. After their conversations, they would ask the tourists to express their opinions about their fluency and receive helpful feedbacks.

Talking in English classes, retelling the reading passages in ESL/EFL textbooks or any other English textbook was another way of practicing speaking. Moreover, Skype had a considerable impact on the improvement of their fluency. According to them, they would Skype with native speakers in a real environment to improve their listening skills, create opportunities for themselves to speak English, and enhance their fluency. Role-playing was another way used by the Participants which aided them to build up their speaking ability and their fluency as well. Moreover, the participants who had listened to songs, believed that it would make learning more interesting and even challenging due to unclear sounds uttered by singers.

As related to imitation, it helps learners use whatever they hear or see as an accurate model to capture native speakers' speech pronunciation, intonation, stress, and the like. By imitating, learners try to adjust their pronunciation, speech rate, and intonation to those of the native speakers. For instance, participant 7 said:

Imitation is part of my language development. While watching news programs, I always try to give all my attention to the way reporters move their mouths and pronounce words, and then I imitate them.

On the one hand, all participants overemphasized that repetition had a pivotal role in achieving fluency in spoken English. Some participants also stated that they crazily repeated whatever they heard in movies and series. Therefore, whenever they replayed those movies or series, they were able to guess the actors' next lines and say them with them with no effort. On the other hand, some of them repeated whatever they had read for several times. This issue is in line with the Harmer's (2015) finding, which argues that "repetition is a key ingredient in successful language learning" (p. 387). To him, repetition is important for speaking practice because it gives the learners "extra opportunities to try language out, refine what they are saying and, especially, feel increasingly confident about what they are saying" (p. 387). In addition, Brown and Lee (2015) argue that repetition "can help to establish certain psychomotor patterns (to loosen the tongue)" (p. 353). Here come what participants said:

Mostly, I repeat four times whatever I listen to. (Participant 10)

I am accustomed to and enjoy repeating whatever I hear. This has resulted in an enormous positive influence on my speed of speaking in English. (Participant 11)

Repetition has played a crucial role in my fluency. So, I know the dialogues of 300 episodes of different series by heart due to my constant repetition of sentences, and that helps me a lot when I want to speak. (Participant 8)

Endless repetition of whatever I hear in movies and TV series has a powerful impact on my speaking ability. It is so important that, for example, watching a 45-minute section of a movie takes about two hours. (Participant 6)

Repetition is part of my learning process. It is very important because it increases the rate of my speech, my fluency, and accuracy as well. I repeat whatever I read until I memorize it. ... When I watch an episode of a series, I repeat whatever I hear three times, once every day. Each time I try to enhance my speech rate and reduce the amount of time. (Participant 5)

What Participant 5 mentioned about his way of repeating each episode of series is consistent with 4/3/2 technique. In this technique, the same talk is repeated three times (four minutes, then three minutes, and then two) which increases speaking fluency and accuracy as well (Nation, 1989; Nation & Newton, 2009). Repetition assists the learners with practicing whatever they have received as input and makes the practiced input stay in their minds for a long time. By repetition, learners will decrease the number of pauses and fillers in their speech. To Chastain (1988), learning involves repetition. It should be added that the results of this study are supported by the findings of the studies which indicate that repetition influences fluency in speaking (Bei, 2013; Yoshimura & MacWhinney, 2007).

Talking to oneself and others was another method employed by the participants. As some indicated, they would talk, loudly or quietly, to themselves about specific topics or daily events they had listened to. This phenomenon is similar to Egocentric Speech proposed by Vygotsky (1986) which refers to the utterances said out loud by very young children as they talk to themselves, not with the aim of communicating with others. It is generally believed that egocentric speech plays a key role in children's first language development. Here are what the participants said in this respect:

I talk to myself a lot, even behind the steering wheel when I am stuck in traffic.
(Participant 12)

I create some conversations in my mind and practice whatever I have learnt.
(Participant 3)

I talk to myself everywhere, even in bathroom. One of the best times for talking is when I take a shower because everything comes to my mind. (Participant 8)

When I was in high school, I prayed to God in Qunut [in second rakat of prayers when Shiites raise both hands high up, palms meeting together] in English.... I have a habit of talking to myself loudly in English. It is very effective because it helps me identify my weaknesses in speaking, overcome them, and expand my knowledge of words, idioms and expressions as well. (Participant 13)

Moreover, talking and singing in front of mirror aided some of them to develop both their speaking ability and adjust their facial expressions and gestures to those of native speakers they saw in movies, on TV, etc. In the same vein, Participant 4 said:

I usually practice speaking in front of a mirror because I am curious to know how I look when I speak English. It also enables me to match my facial expressions and gestures to those of the native speakers I have seen on TV.

Furthermore, some of the participants mentioned that they talked with their siblings, friends or cousins. They said:

My brother and I gossip in English to make sure no one understands what we say.
(Participant 1)

I talk to my friends only in English every day. (Participant 4)

My sister and I talk about everything, nag, gossip, and even argue with each other in English. (Participant 11)

Not only do I talk to my cousins in English on the phone, but also I talk to them only in English when they come to Iran during the summer vacations. (Participant 14)

I have more native English-speaking friends than Iranian friends because I am keen on speaking only English. (Participant 8)

They also mentioned that they spoke English to their friends on the telephone and they even sent text messages to them as much as they could. This issue is in line with the study conducted by Salamat and Pourgharib (2013) who showed that practicing speaking on mobile has impact on students' speaking ability.

Moreover, some participants had experienced talking to native speakers. According to what they said, it was an interesting experience which provided useful opportunities for them to speak English. In addition, it was highly effective because they would pick up expressions, idioms, intonation and so on while communicating with native speakers. They mentioned:

Interacting with native speakers made me aware of the difficulties I had in my speaking. (Participant 1)

Every two months, I talk to native speakers who are my friend's guests. It is really helpful for improving my fluency. (Participant 9)

Once, I not only talked to two Australian tourists, but I also invited them to attend one of my classes and teach a lesson to my students. (Participant 17)

I have learnt a lot through communicating with tourists. (Participant 4)

I take every chance of talking to tourists that comes my way. (Participant 5)

Communicating with a native speaker increased both my confidence in speaking English and my fluency. Through interacting with that native speaker, I realized that fluency was much more important than accuracy. (Participant 15)

Since I am very eager to speak English, I always try to grasp each speaking chance. For example, I talked to an American from 1:00 pm to 10:00 pm. Moreover, I chatted with an Australian tourist visiting Shiraz for some hours. I also attempted to interact with some people living abroad who came to visit our university. At the end of our conversation, they told me that my gestures were similar to those of native speakers. (Participant 8)

And as to verbalizing, they asserted:

I always verbalize everything I learn through watching news programs. (Participant 3)

Verbalizing is a useful way of boosting my fluency in spoken English. (Participant 1)

After watching each program, I spend 10 to 15 minutes verbalizing whatever I have learned. (Participant 17)

Additionally, several participants enhanced their fluency by speaking English in their classes. As they revealed, this helped them to find out their weaknesses with the assistance of their teachers and peers and increase their fluency in speaking.

I always grabbed the opportunities in my English classes and tried to speak English as much as I could. (Participant 13)

I tried to speak English more than my classmates. That was very beneficial because it helped me notice my errors, which were corrected by my teachers, and I avoided them later. (Participant 3)

Speaking is a skill like learning a musical instrument. Therefore, an effective way that can help learners to become skillful and proficient is to actually perform it. In this respect, the results of this study are in line with the findings which show that real performance and actual practice affect fluency in speaking (de Bot, 1996; Izumi & Bigelow, 2000; Swain, 1985; Swain, 1995; Swain & Lapkin, 1998; Whitlow, 2001).

It is believed that recording one's own voice is an interesting experience that has great advantages for learners. Through voice recording the participants got motivated and reflected on their work, especially when there was no one to listen to them. Participant 17 said "I record my voice because there is no one to speak to". They also became autonomous, noticed their own errors, mispronunciations, and the like. In this respect, participant 5 asserted "I record my voice and listen to it to discover my errors and correct them" and participant 14 mentioned "I recorded my own voice while I was speaking in my English class and listened to them at home to check my fluency". Recording also helped the participants to have a self-assessment of their speaking performance. As participant 3 asserted, "recording my voice every month gives me a chance to evaluate my speaking". They also made a collection of their own voices that would show their improvement over a period of time and develop their fluency by overcoming their problems. They would give their recorded voices to their teachers, peers and received feedback from them. For instance, participant 17 disclosed that "I sometimes record my voice about five to 10 minutes, making an impromptu speech to see how I can speak about various subjects. Then I give it to my colleagues to make their comments about it". Moreover, it helped the participants to reduce their pauses, increase their speech rate, and adjust their way of talking to that of native speakers. As participant 3 said, "By recording my voice, I improved my speaking which was monotonous and not strong enough". The findings of this part are in line with those of Amirnejad (2015) and Gu and Reynolds (2013) who demonstrated that voice recording has a positive effect on the development of learners' speaking fluency.

Retelling was another useful way of practicing speaking. It was mainly practiced by the participants after reading a text or listening to a cassette/CD. All participants said that it was highly effective in advancing their fluency. According to Harmer (2015), repetition has an important role in successful language learning and “telling and retelling of stories would seem to be an ideal way of doing this” (p. 393). In this respect, Nation and Newton (2009) note that “one of the most effective ways of bringing receptive language knowledge into productive use is to make use of techniques which involve retelling” (p. 118). Retelling stories and events occur in daily life. Through retelling, learners notice their speaking problems, namely, inaccuracy of their speech, mispronunciation of the words, inappropriate sentence patterns, and slow rate of their speech. Consequently, they try to find a way to solve them.

Retelling, like repetition, helps learners reduce the number of pauses and fillers in their speech, and speed up their speech rate. What some participants mentioned about retelling is as follows:

I practiced retelling a reading passage to my father after listening to the related text on the CD for several times. I practiced it again and again until I knew the passage by heart. (Participant 16)

I retold a topic four times to my tutor, each time trying to increase my speech rate and fluency. (Participant 5)

After reading each page of For and Against book, I retold it to myself several times until I was out of breath and felt that I could say it fluently. That helped me greatly upgrade my fluency after a period of time. (Participant 15)

The findings of this part are in accord with those indicating that retelling has impact on fluency in speaking (Omidi & Zafarghandi, 2016; Rachmawaty & Hermagustiana, 2010).

With respect to role-playing, Brown and Lee (2015) believe that it influences language learning. Moreover, Lazaraton (2014) points out that role-play is a popular activity for practicing speaking. Harmer (2015) also says “role-play can be used to encourage general oral fluency” (p. 392). Through role-playing, learners learn “how to interact with all kinds of people, as they did in their own culture in childhood games” (Rivers, 1981, p. 326). In the same vein, according to Bailey (2003), role-plays are “excellent activities for speaking” (p. 57) because they give learners an opportunity to rehearse the target language speaking and get prepared to communicate in a real situation. Therefore, with the help of role-playing, real situations can be created and learners can benefit from them to identify their weaknesses and errors, boost their fluency by overcoming their speech deficiencies, and learn how to interact in real environments. Additionally, role-playing can increase learners’ motivation and as Harmer (2015) cites “they can be good fun and are, therefore, motivating” (p. 393). The effect of role-play on learners’ motivation for speaking English can be supported by the study conducted by Liu (2010). What Participant 16 said on the advantage of role-playing is:

It was role-playing which provided some opportunities for me and my brother to practice speaking. As first, it was for fun, but it improved our fluency later. We tried to copy and play the roles of the characters we saw in movies. Since we had watched them several times, we knew the lines by heart. We also tried to speak as fluently as the characters, imitate their tones, speech rate, and even their gestures. Role-playing was both fun and useful in increasing our fluency.

The results of this part are consistent with those in other studies denoting the effect of role-play on mastering speaking skill (Benabadji, 2006; Irianti, 2011; Kuśnierek, 2015; Ziafar, Toughiry & Havaeji, 2014).

Writing

Four out of 17 participants made use of writing as a means to practicing speaking English fluency. Communicating with native speakers through Yahoo Messenger was a way chosen by participants 12 and 14. They chatted through text intermittently in one year. According to what they said:

It was very demanding because I had to not only understand what the native speakers would say, but also convey my message and communicate with them at a rapid pace, exactly similar to that of face to face communication. (Participant 12)

It was useful because I picked up a bunch of words, idioms, and grammatical structures. (Participant 14)

Another way of benefiting from writing as a means of improving fluency in speaking, was online Role-Playing Games (RPG) used by Participant 8. In these games, players assume the roles of characters in a fictional setting. They take responsibility for acting out those roles within a narrative, either through literal acting or through a process of structured decision-making. Moreover, everything, from scrolls to instructions, is in English. As he asserted, a game entitled World of Warcraft was very useful for him since in order to play this game he had to communicate with anyone who had good command of the English language, including native speakers. The following is what Participant 8 said about RPG:

I used to play RPG eight hours a day for about 10 years. Although it was in written form, it was similar to real communication. So, I had to read the dialogs of the characters in little speech boxes above the characters' heads, and answer them as fast as possible. I learnt and practiced a lot of words, idioms, slangs, and even grammatical structures which really helped me improve my fluency in spoken English.

Keeping a diary, mentioned by Participant 12, was another helpful way of using writing for practicing English. According to what she said, she wrote her daily schedule and events and even her New Year resolutions in English. As she put it:

Sometimes, I do not know some words and expressions while writing and that makes me realize my weak points. As a result, in correcting my mistakes, I improve my general knowledge of English which enhances my fluency as well.

Another way was Twitter which was used by Participant 7 who emphasized that he had spent time twitting with native speakers. Some native speakers even re-tweeted him, which was extremely encouraging for him.

To Thornbury (2005), “writing has a useful role to play as an initial stage in the appropriation of newly encountered language for speaking” (p. 67). It is evidenced that there is a relationship between writing and speaking (Brown & Lee, 2015; Myers, 1987; Nation & Newton, 2009; Rivers, 1981). For example, both are known as productive skills and are used as means of communication and conveying meaning. Meyers (2005, cited in Fathali and Sotoudehnama, 2015, p. 2) believes that “writing is a way to produce language you do naturally when you speak.” According to him, since writing is similar to speaking, it can play a vital role in developing it. Receiving feedback from native speakers while text chatting leads to further lexical and grammatical knowledge of L2 learners and help them improve their speaking accuracy and fluency. This can be related to the functions of output proposed by Swain (1995) and the integrative nature of four language skills (Brown and Lee, 2015). Regarding the relationship between writing and speaking, some studies revealed that writing has impact on speaking skill and fluency (Blake, 2009; El-Koumy, 1998; Fathali & Sotoudehnama, 2015; Abdolmanafi Rokni & Seifi, 2014; Zhu, 2007).

5. Conclusion

The first point which can be inferred from the quotes is that picking up fluency in speaking does not take place only through input, as Krashen (1982) believes, but its improvement needs to be developed through output (Swain, 1985) as well. That is, for learners to be able to talk in L2 they should talk in L2. Second, speaking in L2 helps learners notice, test, correct their errors, and pick up metalinguistic functions. Third, to reach fluency, one needs to repeat as repetition speeds up speech rate, increases accuracy, makes the materials stick in mind, and reduces the number of pauses. Third, to achieve fluency, learners need to talk constantly to themselves and others, any time any place, loudly or quietly, as that helps them realize and overcome their weaknesses, and broaden their scope of words. Fourth, fluency demands talking in front of mirror as it helps learners to adjust their facial expressions and gestures to those of native speakers, for they need to know how they look when they talk in L2. Fifth, verbalizing and retelling are necessary actions as they help learners to boost their fluency. Sixth, voice recording is really urgent as it helps learners to get motivated, become autonomous, notice their errors and adjust their speech rate to that of native speakers. Seventh, with regard to writing and its impact on speaking fluency, the findings support the integrative theory of language skill (Brown & Lee, 2015; Celce-Murcia, Brinton & Snow, 2014; Hinkel, 2006; Richards & Rodgers, 2014) and that no language skill can be learned per se. And finally, acquiring fluency requires devotion meaning that learners need to devote themselves to this skill and make use of every opportunity to talk in L2.

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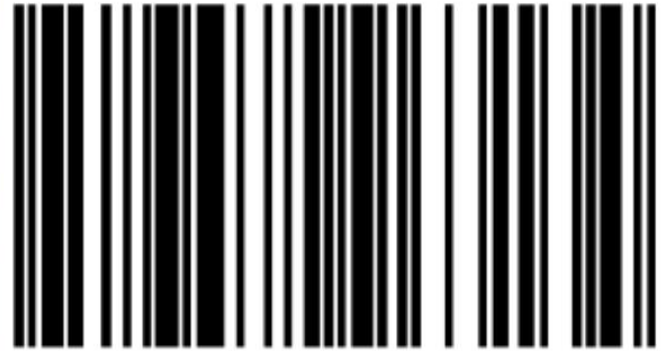
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