



Towards Eradicating Poverty in Malaysia: Leveraging on MyMosqueNet2Cloud Collaborative System

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Abstract

Poverty alleviation is amongst the central goals of the Malaysian Government which they want to achieve with the aid of policies and programs such as the new economic policy and national economic plan. Despite this effort, 40% of household in the country hitherto struggle with a monthly take-home less than RM2, 300. Consequently, an effective strategy should be adopted to reduce the disparity of economic status between ethnics as well as rural and urban area in the country. In a bid to augment the Government effort, this paper proposes a conceptual collaborative IT system anchored on (a) Quadruple Helix Model (QHM), where a country's economic structure lies on four actors namely: government, industry, academia and citizen; (b) "Whole-of-Government" (WoG) approach which demand for a collaborative and co-operative arrangement of open consultation, open data, shared knowledge, consolidation of shared services and enhanced horizontal application across government agencies; and (c) citizen-centric Network-of-Mosques (NoM) – all geared towards achieving a higher quality of life for poor families in Malaysia. This System will expand the reach of the eKasih database which is proposed to be value-added by the Department of Islamic Development Malaysia (JAKIM) by capturing detailed information of the poor through NoM. The expected outcome is an enhanced quality of life for poor families in the country.

Keywords

Quadruple Helix Model, "Whole-Of-Government", Network-Of-Mosques, Quality Of Life, Poor Family, Information Systems, Cloud Computing.

1. Introduction

Poverty reduction has become the most important issue of almost all countries around the world. The United Nations in September 2000, through its General Assembly (UNGA) representing 189 countries, has unanimously adopted the Millennium Declaration which consist of eight goals, 18 targets and 48 indicators which are known as the Millennium Development Goals (MDGs). One of the goals is to eradicate extreme poverty and hunger. The target of this goal is to halve the poverty rate in the period of 1990 to 2015 that is the proportion of people whose income is less than USD1 a day. The second target is to halve the proportion of people who suffer from hunger between 1990 and 2015. Poverty is an economic condition of lacking basic necessities needed to lead a reasonable quality of life. These basic necessities include money, food, water, education, health, and shelter. According to the World Health Organization, poverty is often defined in absolute terms of low income – meaning to say, people who live on less than US\$2 a day (World Health Organization, 2013). Again here, it has been reported that at least 80% of humanity lives on less than \$10 a day income. Additionally, the UNICEF reported that about 22,000 children die each day due to poverty and they "die quietly in some of the poorest villages on earth, far

removed from the scrutiny and the conscience of the world (Anup, 2013).

In Malaysia, poverty eradication has been the primal priority of the Government (Sohag, 2005) with policies and programs such as the New Economic Policy (NEP) and National Economic Plan. The NEP from 1970 to 1990 and subsequent policies have markedly reduced poverty in Malaysia, where poverty headcount ratio at national poverty line in Malaysia is reported as follows 3.8% in 2009, 3.6% in 2007, 5.7% in 2004, 15.5% in 1989 (World Bank, 2013). Thus, "Poverty Eradication" is an indispensable aspect of millennium development goals. It is important to note that the responsibilities of Muslims are to help one another, apart from observing regular prayers (Khan, 2012). Having these duties in mind, the next question is what should be the effective strategy in reducing poverty among the Muslim Ummah in Malaysia? Malaysia, with thousands of mosques, should therefore seriously consider leveraging this Network-of-Mosques (NoM) in improving the "Poverty Eradication" program (Mun, 2011). The Mosque had many uses during the early times of Islam - as a headquarters for the state, a hospital, a shelter for the poor and needy, an information point, a place of relaxation and siesta, as well as being a place of prayer and contemplation, and guiding the Muslims on how to live based on Islam, beginning from an individual to the family, community, country and international (Wahid et al, 2011).

For this reason, this paper is proposing to utilize the potential strength of the Network-of-Mosques (NoM) in helping the poor families in gaining easy and effective access to government "Poverty Eradication" programs such as *eKasih* or the database system which contains the information of the poor families in Malaysia. However, there are poor families that have not registered under *e-Kasih* program. This is due to the fact that most of these unregistered poor families are either not educated to fill the *e-Kasih* forms or they do not know their rights and how to communicate with the relevant government agencies for assistance.

2. Project Background

"The word mosque (*masjid*) is grounded on three Arabic words (Wahid et al, 2011): *misjad* that literally means to bow down; *masjad* which connotes a man who touched his forehead during prostration and *misjid* simply put is a small mat" (Khan, 2012). The word mosque originated from the word 'masjid' implies the place where people prostrate to God; it is referred to the House of Allah (Bait Allah), a place where only Allah is worshipped and remembered: "In houses,

which Allah has ordered to be raised, in them His Name is glorified in the mornings and in the afternoons or the evenings" (Quran, 24:36).

Thus, the Mosque represents the establishment of a Muslim community; it is the nucleus that creates the characteristics of the Muslim society (Khalit, 2011) as well as center-of-excellence for the Ummah. In addition, the Mosque in Islamic history was the focal point where political, social, and religious activities were holistically blended and implemented in realizing the meaning of "Mercy to all the worlds" - well-being in this world as much as the life hereafter. Therefore, the role of mosques has always been instrumental in the social-moral, economical, and political uplift of the Muslim community (Religion.Islam, 2008). It is therefore incumbent that the Muslim Ummah should endeavor to reinvigorate and revive the roles of the mosques in every ramification of life (Al-Hawali, 2013). This will enable the Muslim Ummah to lead the way, enlighten the future, and make the world a better place for all mankind by realizing the meaning of "Mercy to all the worlds" if the roles of mosques are reinvigorated and reformed (Auda, 2011). To this end, it is noteworthy to say that the mosques in Malaysia, e.g. Masjid Wilayah Persekutuan, are not only used for worshipping, but also it provides other value-added services and facilities such as Qur'an classes, hospitals' visits program, programs for single mothers, health programs, funeral preparation programs, etc. (Afridi, 2011). According to (Abd Muthalib et al, 2010), the Mosque is also used as the place to collect charity and *waqaf* in the forms of assets such as land and buildings. However, (Abd Muthalib et al, 2010) contended that the *waqaf* have raised issues where mosques do not have the expertise in managing and capitalizing *waqaf* assets. In the same vein, [Abd Muthalib et al, 2010](Ad-Darsh, 2009) asserted that during the era of the Prophet Muhammad (S.A.W), mosques were used as the government center, law center, the information and communication center, charity center, nursing center as well as community interaction center (Abd Muthalib et al, 2010) (Ad-Darsh, 2009). According to (Ad-Darsh, 2009), he noted that the mosque was also a center for education during the time of the Prophet. Furthermore, Islam strongly believes that mosques are not just "places of prayers" rather, mosques are in modern parlance - community centers (Auda, 2011). Additionally, it is incumbent upon every Muslim community to have a Mosque where all the individual and community activities are anchored. This is consequent on the fact that a mosque acts as the place upon which the minds, beliefs and actions of every individual Muslim are made nurtured and corrected, thus, creating an "environment of virtue and knowledge" like the environment prevailing during

the time of Prophet Muhammad (S.A.W). This environment of “virtue and knowledge” shall make the world a better place for both Muslims and non-Muslims (Saabin, 2010).

The NEP 1970-1990 and subsequent policies have reduced poverty in Malaysia, where poverty headcount ratio at national poverty line is reported as follows 3.8% in 2009, 3.6% in 2007, 5.7% in 2004, 15.5% in 1989 (World Bank, 2013). The issues of poverty reduction have gone to another crucial level as the Malaysian government’s target is to achieve the high income country by 2020. The *eKasih* or *Sistem Maklumat Kemiskinan Negara* is a database system which contains the information of the poor family for the whole Malaysia. The objective of the system is to help the government in planning, implementing and monitoring the “Poverty Eradication” programs. As at 14 January 2011, there were 67,033 (0.82%) households registered as poor in the eKasih database. The information from eKasih will be used as a base for providing aids or projects’ involvement in 1Azam, another government “Poverty Eradication” program, programmed for the poor families.

3. Project Objectives

The main focus of this paper is to propose a collaborative system called MyMosqueNet2Cloud. This system shall blend and leverage on the strength of three key concepts, namely: (a) Quadruple Helix Model (QHM), a country’s economic structure lies on four actors namely: academia, industry, government, and citizen, and the economic growth are generated by the clustering and concentration of talented and productive people (Afonso et al, 2010); (b) “Whole-of-Government” (WoG) concept that demands for a collaborative and co-operative arrangement of open consultation, open data, shared knowledge and expertise, consolidation of shared services and enhanced horizontal application across government agencies; and (c) citizen-centric Network-of-Mosques (NoM) – and focusing on achieving a higher quality of life and sustainable prosperity for all poor families in Malaysia. As citizen-centric institutions, the NoM may facilitate the government in capturing data of the poor families in the eKasih database. Secondly, the NoM can be mobilized in encouraging the involvement of these poor families in the government 1Azam programs. In serving the poor families throughout Malaysia, MyMosqueNet2Cloud Collaborative System is proposed to leverage on the concept of QHM, WoG, and NoM, where:

- MyMosqueNet2Cloud System is proposed to be led, owned and operated by the Department of Social Welfare (DSW) and the Department of Islamic Development Malaysia (JAKIM) in close collaboration with all relevant government agencies such as Implementation Coordination Unit of the Prime Minister Department (ICU), Amanah Ikhtiar Malaysia (AIM), the State Islamic Religion Council (SIRC) through the State Islamic Religion Department (JAIN) and Zakat Centers, and universities.
- This collaborative system will demand other QHM actors such as banks, NGOs and companies to collaborate and share resources with DSW/JAKIM in providing quality and concerted services to the poor families.
- The NoM members, digitally connected, will therefore function as the avenue in capturing and updating data on the poor families as well as encouraging active participants in Government-led “Poverty Eradication” programs such as eKasih.
- MyMosqueNet2Cloud Collaborative System shall be made available to all NoM members throughout the country.
- Resources such as databases, knowledge, expertise and computing facilities will be shared amongst the relevant QHM collaborators through the Cloud computing platform and mobile applications.

4. Literature Review

Even though poverty is effectively managed, the current income of Malaysia is considerably low and 40% of households still struggle with a monthly income which is less than RM2, 300 (US\$766.66). The perceived disparity in income levels and economic status (a) between Sabah and Sarawak and Peninsular Malaysia, and (b) between ethnicity where the Malay/Bumiputra (majority are Muslims) has the highest poverty incidence of 5.5% as compared to Chinese (0.6%) and Indian (2.5%) in 2009 (EPU, 2013), need be addressed effectively. Additionally, an effective strategy should be adopted to minimize the disparity of economic status between ethnics as well as the rural and urban areas.

In order to cater the issues emerging between different communities and geographical areas, the New Economic Model and the Tenth Malaysia Plan were devised to focus on inclusive growth and aspire to provide equal opportunities to all Malaysians. The government established the “Performance Management and Delivery Unit” (PEMANDU) under the Prime Minister’s Department in 2009 to supervise the execution, review the progress, assist as well as sustain

the delivery and drive the progress of Government Transformation Programme (GTP) and Economic Transformation Programme (ETP) (Pemandu, 2013). The objectives of GTP are to transform the government to be more effective in its delivery services and accountable for outcomes for society and also to achieve Vision 2020 that is for Malaysia to become a fully developed nation (Malaysian Innovation Foundation, 2012). While for ETP is an effort to transform Malaysia into a high-income nation by 2020. PEMANDU has been mandated to catalyze bold changes in public and private sector delivery, support the ministries in the delivery planning process and provide an independent view of performance and progress to the PM and ministers (Pemandu, 2013). To allow PEMANDU to carry out its responsibilities effectively, it combines the best talent from both the civil service and private sector (Pemandu, 2013).

Besides PEMANDU, Special Innovation Unit (UNIK) was established in 2010 under the Prime Minister's Department as the central for innovation in Malaysia through identifying the solutions for the gaps in the innovation eco-system and to observe the areas of eco-system which are the government, universities, the education system, funding as well as skills (Agensi Inovasi Malaysia, 2012). National Innovation Agency (NIA) was then established as the continuation from UNIK and acts as the supporter to implement the innovation related to the Prime Minister (Agensi Inovasi Malaysia, 2012). NIA aims to plan national strategies and directions relates to innovation, organize, cooperate in and coordinate the performance of activities with the public private sectors to stimulate innovation in Malaysia; conduct enquiries, surveys and analyses of data, research and development relating to innovation and the national innovation eco-system, promote and facilitate investment activities and initiatives by the public and private sectors in relation to innovation, promote the culture of innovation in the public, private and education sectors in Malaysia, advise the Government in matters relating to innovation, and make recommendations relating to the innovation component of existing or future strategic national projects (Agensi Inovasi Malaysia, 2012).

The eKasih system is a database system for poor families under the Ministry of Women, Family and Community Development. It was created at the national level to help the government to plan, implement and monitor poverty program (Ministry of Women, Family and Community Development, 2012). The data in the eKasih system is from the census of poor household (BIRM) conducted by the Department of Statistics. Other than the census, the households who meet the criteria based on the poverty status of household income per capita poverty line income (PLI)

in 2007 which is less than RM 2300 a month can register themselves through www.ekasih.gov.my (Ministry of Women, Family and Community Development, 2012).

There is another programme managed by the government via AIM known as 1Azam. The 1Azam provides opportunity for poor families in generating income via giving them opportunity in four areas, namely: (1) *Azam Kerja* for opportunity to generate income through work placement, (2) *Azam Tani* to generate income based on agriculture, (3) *Azam Niaga* to generate income through small business, and (4) *Azam Khidmat* to generate income through services (Ministry of Women, Family and Community Development, 2012). 1Azam uses the poor families' database from eKasih system

5. Proposed Solution

To actualize this goal, the Mosque should adopt the Quadruple Helix Model (QHM) and WoG concept of ICT implementation across the country. The WoG concept is to map the financial and non-financial contribution of federal government and to align their program activities to a set of high level outcome areas defined for the government as a whole.

This project is feasible because there is a model that has been implemented in the United Arab Emirates (UAE). The UAE implemented a network to connect all Mosques nationwide in order to synchronous 1 AZAN. The Malaysian government also already implemented a project to assist low income families with life expenses as well as marketing their products. Therefore, this project mainly aims at integrating the NoM with governmental network in order to improve the scalability of their poverty eradication projects, since Government's programs cannot reach all corners. With this project therefore, we strongly believe that the Mosque can help in this matter. This will not only assist the Government in the success of their projects but also to ensure data integrity where a single and trusted view of data is established. The proposed solution includes:

5.4 Change Management (CM)

MyMosqueNet2Cloud Collaborative System will use CM programs to manage the system as it provides method to address change in business processes by using ICT in delivery services in the business (MAMPU, 2012). By implementing Leavitt's model (Figure 3) in MyMosqueNet2Cloud Collaborative System will make the CM more effective. Leavitt's model suggests that every organization system consists of four components which are people, structure, technology and task. People in the model refer to the four actors in QHM which are the Government, Academia, Private sectors and Citizen. While for structure is the hierarchical structure in the different management levels that are suitable for WoG concept as it includes many government agencies in Malaysia and also other QHM actors. The technology in the model refer to the technology that will be used in MyMosqueNet2Cloud Collaborative System such as database and mobile computing that required to implement the task of MyMosqueNet2Cloud Collaborative System.

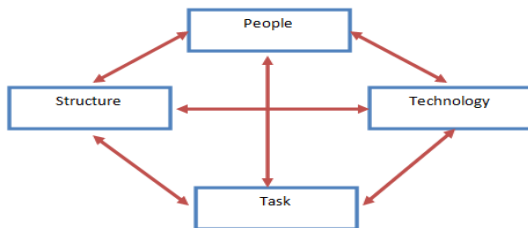


Figure 3. Leavitt's Model

6. Future Work

It is hoped that this conceptual paper motivates the actors of the QHM collaboration, especially DSW and JAKIM through WoG implementation, to start working towards shared goals and integrated IS-based solution in meeting the needs of the Poor. The development and implementation of MyMosqueNet2Cloud System demands for:

- (a) The streamlining of government agencies' Information System (IS) architecture, where efforts are driven to simplify systems, remove duplication and silos, and leverage on technologies that enhance the government delivery of services to the Poor holistically,
- (b) The consolidation and optimization of the government's ICT resources namely people, applications, technology, facilities, and data,

- (c) Intensifying inter-agency collaboration towards fostering WoG public service, where the government agencies work across portfolio boundaries in a collaborative and co-operative environment of open consultation, open data, shared knowledge and learning, consolidation of shared services and enhanced horizontal applications, and
- (d) The NoM acting as the "front desk" service delivery to the Poor. Thus, enhancing the roles of a Mosque – a place for Worship/"Ibadah" and as a community center for the local Muslims as well as for the Malaysian in general.

The strategic intent of this paper is for the government agencies such as DSW and JAKIM, to consider the proposed ideas, and if deemed necessary, deliberate, refine, plan, develop and implement through the pervasive use of IS for WoG delivery by unlocking the full potential of government's IS with a focus on value creation and optimization of government resources.

7. Conclusion

The Quran has mentioned that "And let there among you be a group of people who invite to all that is good, who enjoin what is right and forbid what is wrong" (3:104). This verse outlined the way how societies or communities should be organized and run. This conceptual MyMosqueNet2Cloud Collaborative System demonstrated the strength of collaborative concepts such as QHM and WoG, blended with social entrepreneurship concept that can be deployed in serving and enhancing the quality of life of the Poor. At the same time, the QHM actors utilizing NoM as an effective service delivery channel to the Poor through a collaborative and co-operative arrangement of open consultation, open data, shared knowledge and expertise, consolidation of shared services and enhanced MyMosqueNet2Cloud Collaborative System services. The application system can be replicated, adapted and roll-out to other countries. It is also suggested for MyMosqueNet2Cloud Collaborative System to be part of IslamGRID portal, operated and co-owned by JAKIM and DSW.

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