Zakat Knowledge Unified Management (KUM) System: Connecting the Organisation Diversity in Indonesia

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Mandatory charity or *zakat* is a fundamental approach in Islamic tenets to deal with social problems like crimes and poverty in the society by dividing the percentage of wealth source to the entitled recipient affordably. Collaborative research conducted by the National Zakat Agency (BAZNAS) and the Bogor Agricultural Institute (IPB) estimates that the potential for zakat harvesting in Indonesia could reach around 217 trillion rupiahs annually, which has yet to be achieved. This study attempts to investigate the problems and challenges raised in adopting a KMSLC (Knowledge Management System Life Cycle) to solve zakat management system problems in Indonesia. The aim of this research is to find an insight to overcome the conventional approach by zakat institutional and to provide the balancing mechanism to manage every phase within the zakat management in the fastest and smartest way. Because this research has been designed to be an exploratory investigation to develop a framework, this article uses a qualitative method, by using the empirical support in an historical background, and a holistic view of zakat mechanism and interviews.

Key words: *management, knowledge, approach, exploratory*

INTRODUCTION

Zakat is an obligatory charity that literally comes from the Arabic root meanings "*that which purifies*", as well as "*that which fosters*", which is related to grow and develop. The meaning of cultivating zakat is related to the implication of paying zakat in order to support and help improving the quality of life the entitled recipients by classifying this activity as the religious channel of merits (Ataina & Achmad, 2010). It is categorised into two primary groups namely zakat *al-Fitr* in which Muslims must pay once a year per person three or two days before the *Idul Fitr* or the first of Shawwal and zakat *Mal* that is related to the payment of a certain

percentage depending on the type of wealth sources or owned assets such as gold and silver, several type of animals, agriculture and others, after fulfilling the ownership in full one year and reaching the specific threshold. Actually, there are eight entitled groups who are eligible as zakat recipients as mentioned by Allah in At-Tawbah: 60 namely *al-Fuqara* or a person who is strained, *al-Masakin* or a person who is poor, *Amil* or person who has the right to collect zakat, *mualaf* or person who has reverted to Islam, *al-Riqab* or a person who is enslaved, *al-Gharimin* or person who is in huge debt, *fi-sabililLah* or a person who is struggling in Allah's cause and *Ibn as-Sabil* or a person who is a wayfarer.

Zakat is one of the fundamental pillars of Islam which is not solely oriented towards welfare based on donors' donations but as an obligation that must be fulfilled by entitled recipients. Based on the fundamental principles of zakat, the institutions must first be built in an organised Muslim society (Aedy, 2015; Lubis & Azizah, 2018), which is controlled and managed by the Muslim government or supervised by a specific body that work based on Islamic tenet authorised by the government. Essentially, zakat has been used as an instrument or methodological approach to help the national economic growth through the optimisation of the zakat collection and distribution. Therefore, the indications of public response has shown the potentiality of zakat to be utilised in terms of developing the financial and monetary system based on zakat capital source welfare.

Indonesia is the world's most populous Muslim country and 87% of Indonesia's 220 million population are Muslim. It consists of about 191 million Muslims. Of this amount, nearly half of them (76.5 million) are subjects to zakat payments, while the rest are entitled to receive zakat. In the ideal way, the rich Muslims can support the poor financially by using the instrument of zakat. As an instrument of Islamic social welfare, it must be a proper mechanism for improving the economic status of Muslim communities in Indonesia. Thus, it has great potential to alleviate poverty and improve social welfare if zakat can be managed effectively (Saidurrahman, 2013). This study explores the several phase mechanism in the zakat management system through developing the projected trajectory to improve the system to be more equitable and accessible. The proposed new zakat management system is expected to increase the professionalism of management, as well as increasing the trust of zakat payers, leading to the total amount of funds to be organised within the Islamic financial and monetary system. This can escalate the ability of the recipient or *Asnaf* in a proper and meaningful way to improve their quality of life by eradicating poverty to strengthen the social interaction of Muslim communities.

LITERATURE REVIEW

A. Knowledge Brokers

Knowledge brokers must be able to respond to anything they consider relevant and resourceful as a quick decision, even for a changing mission, but still dependent on complementing mission

and commitment (Phipps and Morton, 2013). It related to train the human perceptions to meet good quality goals and expectations at a certain stage that has the principles of transferability and readability. A set of strategies must be developed and the relevant agencies must prepare an enabling environment (Harun et al, 2018; Muslimin, 2019; Lubis et al, 2020). Most importantly, understanding the human factor in the framework, its perceptions and reasons for compliance in management can help users understand the types of precautions to take and reduce the number of incidents related to non-compliance. Some studies is investigating the productivity and efficiency of zakat institutions in Malaysia during the period of 2003-2007 show an average increase of 2.4 percent, associated with technical progress (TECHCH) of 3.5% and change in efficiency (EFFCH) with a negative change of -0.1% while the research results also show a technical efficiency of 80.6%, where zakat institutions can increase production by 19.4% based on the existing input levels (Wahab & Rahman, 2013).

On the other hand, the Indonesian parliament passed Law No. 38/1999 to accommodate the functions of BAZNAS (National Zakat Agency) and LAZNAS (National Zakat Agency) as professional zakat management institutions. Apart from that, the regulation also introduces the use of zakat as a deduction from taxable income, through article 13 paragraph 3 of the Law. On the other hand, zakat as a deduction from taxable income was legally confirmed by the issuance of Law Number 17 of 2000 on Income Tax. Meanwhile, chapter VIII describes the obligation of all zakat institutions to record accurately as long as the sanctions imposed reach 30 million rupiahs as well as a fine if the institution does not adequately fulfil its functions, in line with the UU KIP for its willingness to provide public data to the social community. However, Saidurrahman (2013) argues that the zakat institutions in Indonesia must be properly managed without sacrificing social capital, such as the involvement of private zakat administrators who were ignored by the enactment of the new Law No. 23/2011 to review certain important aspects.

B. *Knowledge Repositories*

In the context of knowledge management repositories, organisations should take the initiative to design comprehensive policies to establish the visibility and impact of expected results by providing an interoperable preservation system and insuring assets against loss (Ali & Iqbal, 2015). These principles represent a set of oriented values and regulate concrete community behaviour. Thus, the law establishes obligations in the conscience of individuals belonging to the cultural sphere in which those values are accepted. It presupposes individual freedom as a cause that acts without external coercion through the socialisation process, although the importance of the principle tends to be neglected (Lubis et al, 2017). In a sense, the enforcement of regulations are required to not encourage punishment but emphasize more on preventive measures by intervening prior security incident or breach occurs (training and education programs) and providing incentives (rewards, subsidies, use of logos, casual inspections) to allow active participation for relevant organization or companies in the program (Rouviere & Caswell, 2012). In accordance with Presidential Regulation No. 81/2010 on bureaucratic

reform and PERMENPAN & RB no. 20/2010 on the bureaucratic roadmap, it have been established the main objectives of human resources development that are managed by the ministries in charge under Law no. 5/2014 (State civil apparatus). Meanwhile, according to Law no. 14/2008 (Freedom of Information Law), public institutions must serve the public through transparency and accountability in the management of resources and the use of the budget. However, despite all the controversy that accompanies Law No. 38/1999, after the promulgation of the new law, there were two primary things that greatly influenced the history of Indonesian in the management of social and Islamic funds, especially zakat and other charitable funds. This is the end of the exclusive authority of the government in the management of zakat, which, as mentioned above, is in fact the absolute right and obligation of Umara (government) in Islam. The law also establishes penalties for transferring the authority to administer zakat funds to some people. The government-supported BAZ and the private-sector-initiated LAZ have the same authority and role in collecting and distributing zakat funds for Muslim communities in Indonesia (Saidurrahman, 2013).

C. Knowledge Sharing

The practice of sharing knowledge must take into account the organisational culture that fosters a favourable social environment such as trust, shared value, and goodwill to facilitate the process, which are not prone to managerial control with respect to intangible assets (Saufi & Tasmin, 2010). The efficiency of zakat institutions can be measured by the dissatisfaction of both parties with the services of zakat institutions. Therefore, trust is based on interpersonal interactions between people and those willing to share knowledge and help each other in a crisis, where they need to strengthen their perceptions of employee behaviour (Lee, 2016). In addition, individual, institutional and environmental backgrounds have a positive impact on users' awareness to view compliance in a positive way (Ataina & Achmad, 2010). Furthermore, explicit knowledge is transformed into tacit knowledge which is easier when people trust each other and are willing to contribute their valuable knowledge (Swift and Hwang, 2013).

To optimise distribution, institutions should provide better zakat collection strategies, for example getting direct participation from zakat payers to facilitate zakat funds by providing various channels to increase the efficiency of participation of eligible zakat recipients. Research conducted by Ahmad, Othman, and Salleh (Ahmad et al, 2015) in Malaysia to assess the level of satisfaction, found that the majority of zakat recipients were satisfied with the quality of their services, although the majority were related to environment and expenditure. They added that the poor and needy were not satisfied with waiting times and queuing times. Interestingly, they also explained that the majority of zakat recipients received information about zakat disbursement from related friends (43%), followed by radio and television (23%), websites and memoranda (20%), and newspapers (15%). Moreover, zakat administered by government-appointed zakat institutions and masjid-based zakat committees has not been managed professionally, many of whom are only part-time workers, burdened with large burdens and responsibilities for handling cases such as: The unbalanced disbursement did not follow the

results of the census as a result, lack of transparency regarding the inflow and outflow of zakat, certain target groups such as city officials, and low capital support of only around half a million rupiah (Aedy, 2015). Government should take advantage of the function of the masjid not only as a place for religious rituals and educational activities, but also as a source of increasing the economic capacity of the community, which play critical and central role of source fund management that have the ability to reach out the community.

D. *Knowledge Acquisition*

Strategies for gaining knowledge should involve evaluating evidence and inductive causal inference in attribution of importance both to prior expectations or theories and to evidence or justification of covariance of relevant factors in the promotion of causality conclusions (Kuhn et al, 1995). Bakar & Ghani (2011) reported that according to Imam Nawawi (n.d.), the zakat ratio for the poor must pay attention to the work and living conditions of the recipient. If someone works as a bricklayer, the ratio of zakat given must be sufficient to meet the needs of the recipient. The Zakat fund given differs according to the recipient's occupation and the living expenses they have to bear. For those who are physically unable to work to support their lives, the zakat funds given must be sufficient to care for people with disabilities for life. The zakat ratio is also based on the current average expenditure of local people. Regarding this, al-Dusuqi (nd.) from the Maliki School and most of the Hanbali school scholars emphasised that the distribution of zakat to the poor and *Asnaf* in need must be in the form of assistance, which is important to someone. Qamariyah (kifayah al-Sanah) is for recipients and dependents. The recipient is entitled to receive zakat until it is freed from the need. Among the forms of assistance that can be distributed are basic necessities such as food, clothing and shelter. The provision of capital for industries such as tools for trading and others is also encouraged; al-Syirazi (nd) from the Syafie school of thought, on the other hand, believes that sufficient zakat should be given to the poor and needy as long as they remain poor (kifayah al-Umr). KMS supports a collaborative environment that resonates with the collective environment in project management to address the problems of ineffective storage and retrieval distribution, lack of real-time visibility, limited accessibility, and limited collaborative environments in the use of application technology (Haron, et al, 2016). The redistributive impact of zakat economically related to the improvement process on how it is handled accordingly, especially in the phase of collection and distribution (Lubis, et al, 2011).

E. *Knowledge Transformation*

Knowledge transformation has been developed in two fields through and in specialisation, the novelty of which is very low and the dependence between the specific domains remains stable or the boundaries or interfaces are well defined, otherwise it will have negative consequences which must be changed to solve together. According to the activity theory, the paradigm within the KMS (Knowledge Management System) related to the process of developing, storing, creating and distributing the knowledge in the collaborative approach to obtain the expected

result based on the objective aligned with a proper learning system (Berrel, 2003). Researchers and professionals have suggested that the application of KMS is to increase the performance of the employee based on the organisational goals through the support of every knowledge application effectively (Nasution, et al, 2014). Actually, gradual knowledge can lead users to get definitive solutions, where the expression of knowledge and the representation model is the extremely important phase to shift the efficiency of reasoning by enriching the level of overall intelligence knowledge (Xikui et al, 2014). Users are forced to compare perceived performance with initial expectations of continuing or stopping using the system (Muraina & Ibrahim, 2016). In general, the information should be defined from the data terminology while knowledge comes from it with culture or wisdom associated as knowledge (Rowley, 2007).

To promote transparency, data stored in trust fund offices and at major zakat institutions must be consistent, verified and reliable. Information must be protected to avoid creating and falsifying data. Therefore, it is necessary to build information security governance between zakat institutions and zakat fund administrators in order to have accurate information that will be used for better decision-making and management of zakat (Sulaiman & Jamil, 2014). Companies in the creative industry can create an indirect effect through collaboration in innovation, where internal and external collaboration make a significant contribution to the creation of innovation, although internal collaboration is lacking in scope (Stejskal and Hajek, 2016). Apart from the advantages of localisation in the management of zakat, the role of government as regulator, coordinator and protector is still needed to prevent fraud and mismanagement. In addition, the voluntary participation of local organisations and communities as social responsibility gradually creates a close relationship, where the community can directly measure the performance of trusted officers.

F. Research Methodology

This study uses qualitative research by carrying out several stages, namely first identifying problems and needs, secondly designing process solutions that focus on implementation with appropriate applications and, finally, determining knowledge resources through integrated solutions in the KMS Life Cycle in the form of Zakat Knowledge Unified Management (KUM). Initially, researchers developed knowledge mapping as a visual aid that shows what types of knowledge and where they can be found in a system and the most appropriate responsible experiences, based on systematic literature reviews and related research. . This literature review was conducted to explore conceptual theories related to the CG model in the zakat management system (ZMS), identifying problems in five categorical questions, namely knowledge intermediaries, knowledge repositories, knowledge exchange, knowledge acquisition and knowledge transformation. After that, this study developed a knowledge process to provide solutions to problems faced by making detailed process solutions through the Unified Modelling Language (UML) in the form of a system package consisting of case studies: usage (5 summaries and 6 narratives), 3 system diagrams, 4 flow diagrams, 6 collaborative diagrams, activity diagrams, 3 class diagrams, 6 sequence diagrams, system diagrams, 5 context diagrams

(follow-up processes, zakat fund management, *Amil* information and *Asnaf*, asset management) and status diagrams.

In this case, this study uses a distributed approach as a contextual framework for designing applications that are suitable for development, namely web-based systems. The connectivity of masjid as a centre for collecting and distributing zakat is very important at every stage of activity, which requires sophisticated relationships such as aligning vision and improving data quality. The final phase is then linked to the evaluation stage to verify the suitability and appropriateness of the KM model to describe current problems and future challenges through the objective question (GQM) metrics and knowledge activities. Each item must be measured based on the KMSLC to generate advantages and disadvantages using KM in ZMS. The verification process consists of verifying the objectives, strengths, weaknesses, opportunities, threats, schemes and obstacles. Finally, the researcher validates the framework by justifying the argument through evidence.

RESULTS AND DISCUSSION

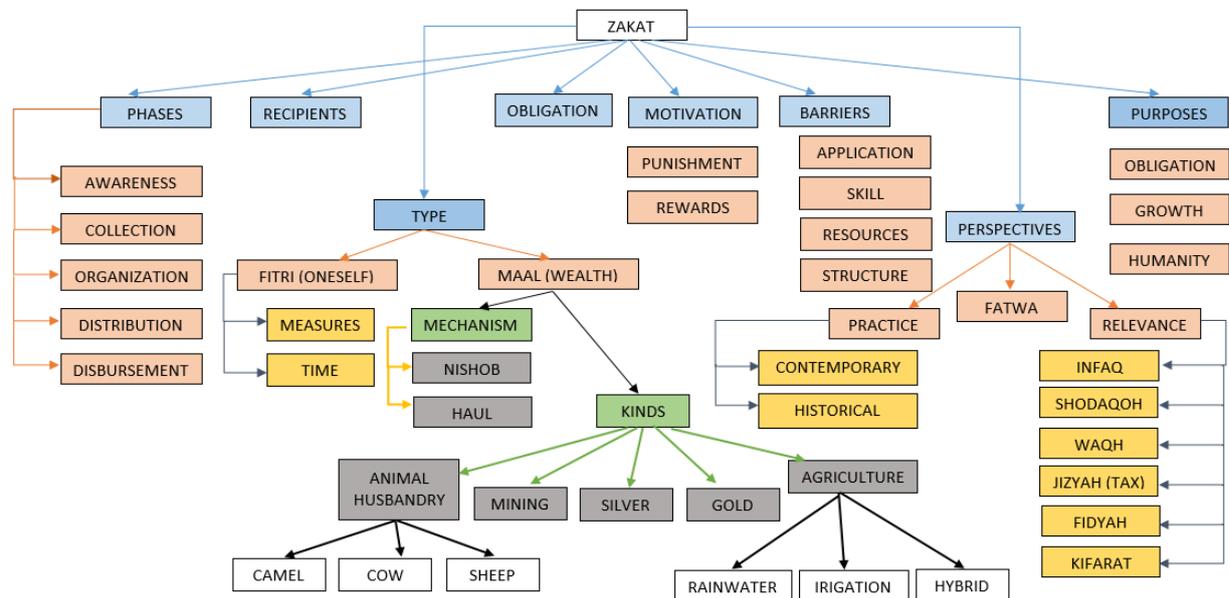### A. Mapping and Process

Fig. 1. Knowledge Mapping of Zakat.

To increase efficiency in identifying the needs, the first step taken is to explain the hierarchical association of bodies of knowledge as a structural model. It has the aim of managing the knowledge area in the zakat management system with the extraction of homogeneity attributes or similar content. In the case of ZMS knowledge mapping as can be seen in figure 1, there are 5 sequence levels shown in different colours, namely blue (first), red (second), yellow and green (third), grey (fourth) and white (fifth). In addition, there are 7 high-level associations that originate from the extraction of the value of zakat, namely objectives, perspectives, obstacles,

motivation, obligations, types, recipients and stages. In many cases, knowledge mapping can also reveal weak relationships, existing and potential gaps, bottlenecks and deadlocks within the flow of knowledge activity, through defining accurately on how it changes and transfers over various organisational systems, according to the opportunities for quality improvement. Therefore, it also made special adjustments to assure that the proper insight should be based on the proper guidance at the right spot within the activity flow to be shared to the diverse organisation.
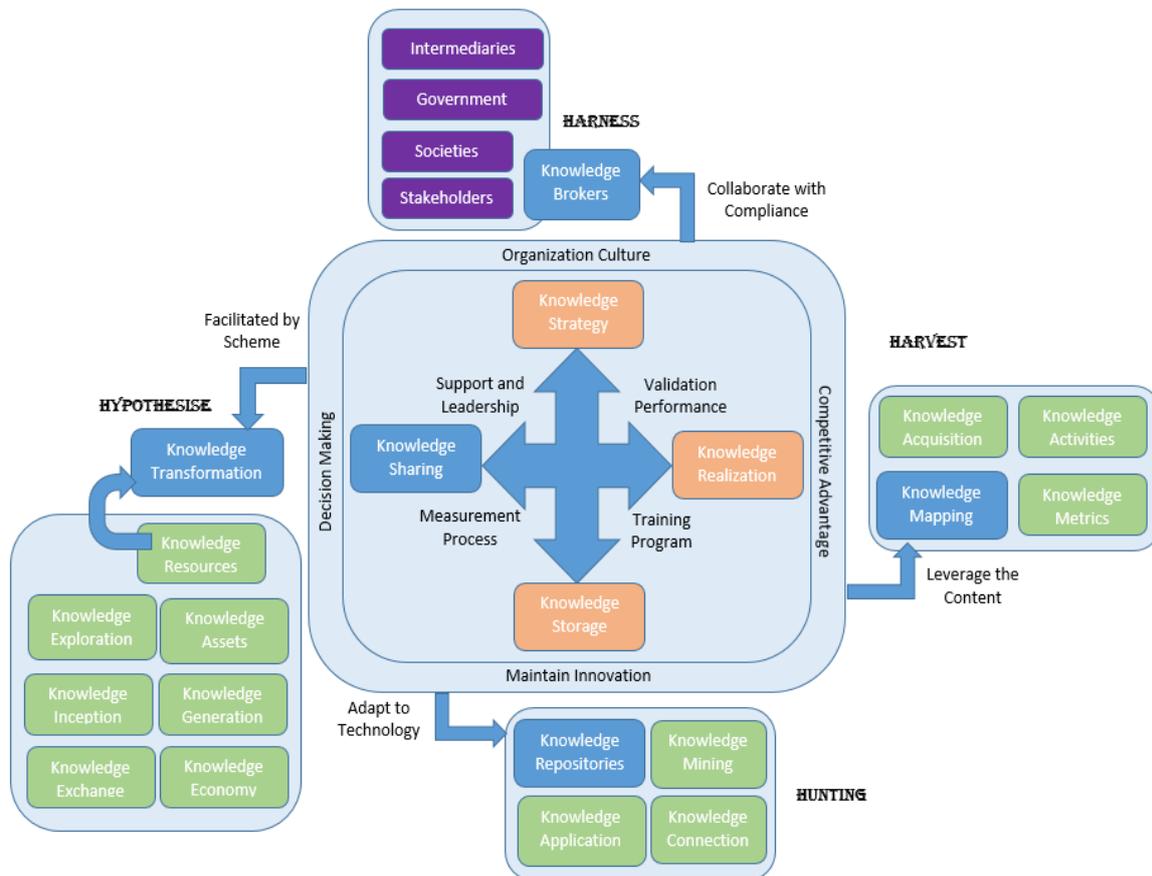

Fig. 2. Knowledge Unified Management (KUM) Framework

As a tactical practice for organisations, knowledge in the process of activities should be guided by a conceptual framework that represents the knowledge associations needed in knowledge mapping to serve the purpose of translating implementation within the diversity realm. Meanwhile, organisations also need an understanding of the mechanisms for creating and maintaining knowledge, providing clarity to the knowledge business which is essential for effective and efficient management and future organisational decisions to influence important assets in ZMS. Knowledge exploration should analyse assets at a contextual level by enabling strategy analysis in tacit and explicit knowledge, as well as examining the measures currently used in the use and retention of knowledge resources related to functioning, coordination and understanding and capacity. In figure 2 showed the relationship in every categories of knowledge management to utilize external and internal component of organization to allow the

collaboration with other relevant entity, leverage proper concept to allow management principle can take into account, adapt the process to have suitable device and package and ensure the facilitation in extracting the knowledge can be conducted regularly and accordingly. The relationship in this case is visualized in the form of knowledge unified management (KUM) that emphasize the important role of knowledge mapping, knowledge brokers, knowledge transformation and knowledge repositories for effective and efficiency implementation.
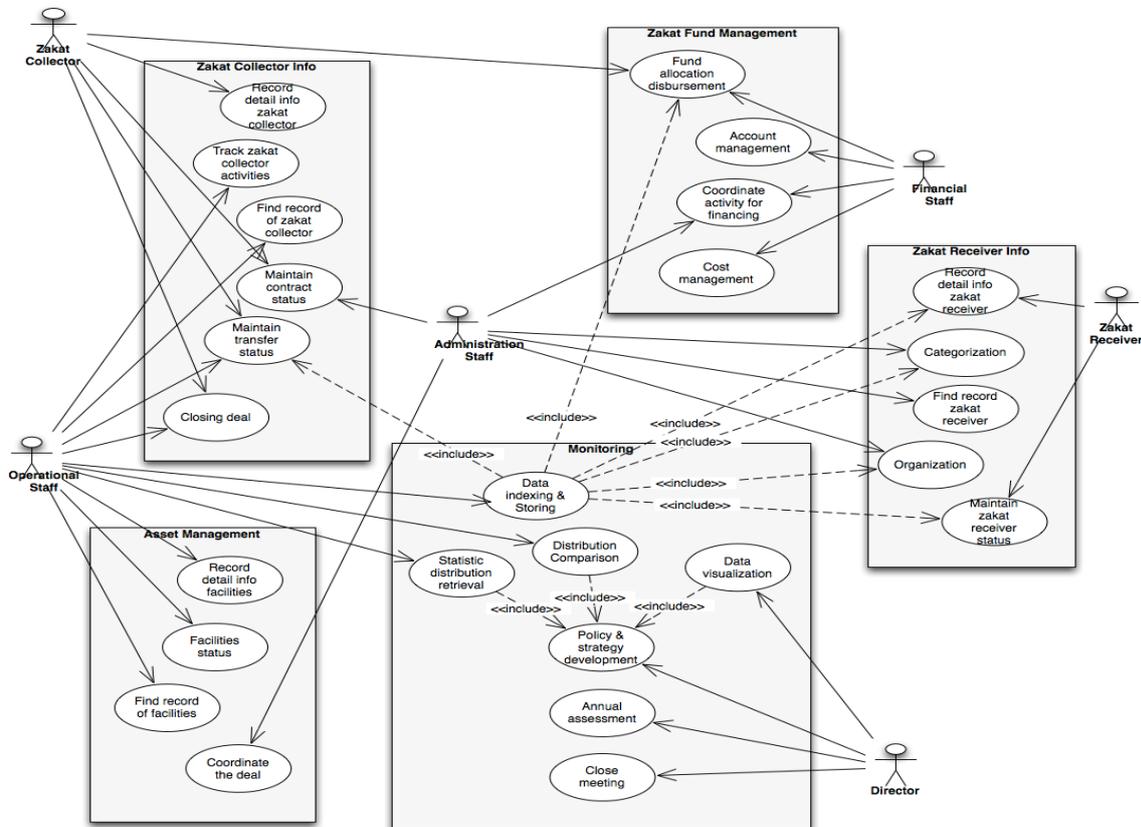

Fig. 3. Use Case Diagram for Zakat Management System (ZMS).

Use cases are created to describe a set of actions in the system, which work in conjunction with one or more external user actors. There are 6 main actors involved in ZMS, namely finance staff, administrative staff, operational staff, directors, zakat gatherers, and zakat recipients. In this case, this study equates the role of zakat collectors with zakat payers, donors, *Amil*, and promoters, while administrative staff have a special role in performing the routine tasks of the organisations, such as the file management, message writing, appointment scheduling, and supporting other staff. This important process is related to the management of the zakat funds, which is coordinated by the financial staff with the operational staff in terms of indexing and data storage in the process of monitoring the disbursement of the allocation of funds and the coordination process of activities with the administrative staff. On the other hand, the director focuses on the strategy level with decision-making in the data visualisation process, annual evaluations, policy development, and closed or post-mortem meetings. There are several overlapping processes identified, such as the zakat process, namely maintaining contract status

with administrative staff, maintaining transfer status, and closing agreements with operational staff. These activities must be carried out in the form of a quick response, so coordination and validation are important aspects to be carried out. In addition, this study also develops a use of case summary to analyse the needs of related activities in the process and the use case narrative to produce clarity in application development by identifying scope, priorities, key players and support, stakeholders, including and excluding activities with their prerequisites, triggers, and normal flow, underflow, alternate flow, non-behavioural requirements, and open problems.
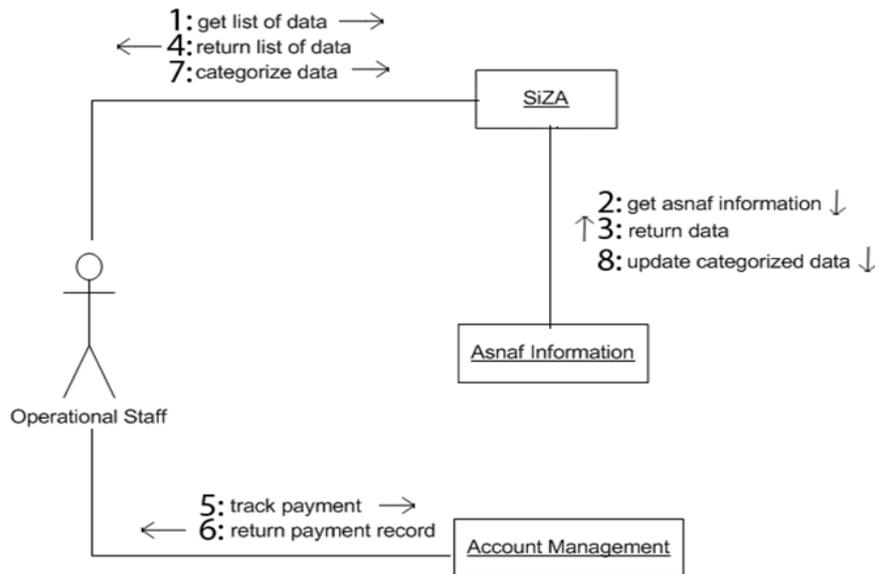

Fig. 4. Collaborative Diagram for Data Indexing and Storing.
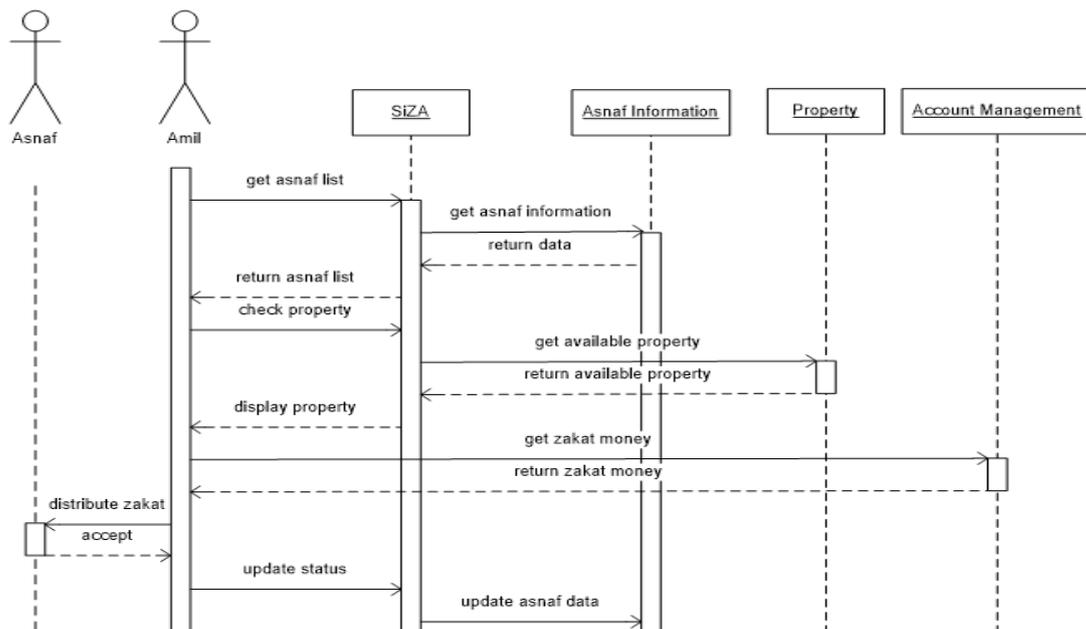

Fig. 5. Sequence Diagram for Maintain Transfer Process Status.

These collaborative diagrams have the function to communicate the interaction or relationship among related objects, which in this case, is the operational staff who have 8 activities to SiZA (Zakat System), which are a list of data in terms of *Asnaf* information from the system to track the payment record from account management, then the process of categorisation runs accordingly. Besides that, there are also statistic distribution retrieval, and maintain status *Asnaf* and zakat distribution comparison by operational staff, which is collaboratively monitored and verified by director. Furthermore, the sequence diagrams have a purpose to explain the dynamic event that is drawn from one operation to another. In this case, the process of maintaining transfer process involves operational staff, the zakat collector, director and zakat receiver (*Asnaf*). The sequence concern is to get *Asnaf* information, get available property and get zakat money to update status and *Asnaf* data into the system before accepting the process of distributing the zakat. Through in depth analysis involving the overview of the system and the actor relevant to the process, the system packages have been built, which emphasise structural model and *Asnaf* information, besides other packages such as asset management, zakat fund management, *Amil* information, behaviour model and dynamic model.
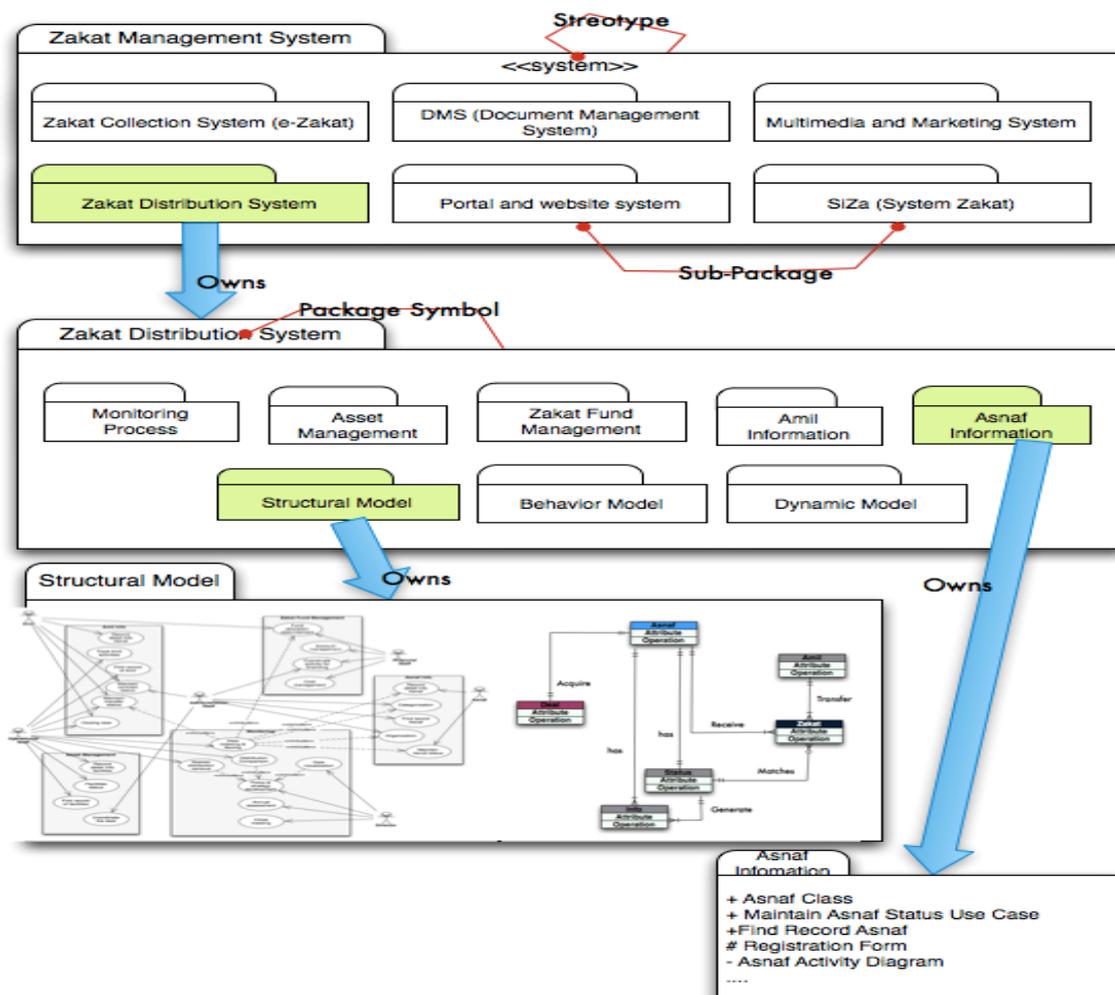

Fig. 6. System and Sub-Packages of the Entire Zakat Management System (ZMS).

Knowledge application can be in the form of modules, network and packages that are developed based on requirement analysis on the context. Those packages are not neglected but integrated to the zakat distribution system of ZMS as the logical model. To assure the process of zakat management runs well and accordingly, the other sub- system should be maintained with the regulatory compliance and policy procedure created through director instruction such as SiZa that have concerns in the administration and operational level to provide the estimation of instrument and indicator of performance of staff. Besides that, multimedia and marketing systems and DMS are also critical in the process as they assure and guarantee the back and front work were conducted accordingly for the purpose of tracking and storing the historical event involving the modification or revision in the scale of promotion, segmentation, targeting, positioning and recoding. The other critical sub-system involve zakat collection, which should be developed in the online approach to provide more availability and compatibility to the zakat payers. People tend to adopt the system in the long duration of time if they found out transparency and resourceful attributes within the system. After all, the system is developed to support and help the process of distributing wealth in the form of zakat to the person in need, thus, all forms of ease and tolerance should be preceded rather than anything else.

B. *Knowledge Metrics and Activities*

To set the objective and goal of KM implementation requires the assessment of readiness in an organisation (Saufi & Tasmin, 2010). The core of the zakat management system is the collection procedure that was designed and customised through a computer system through the knowledge unified management principle. It relates to the internal process, which involved the zakat assessment form, coding, information collection, payment mechanism, check and balance, marketing process and reporting system. Thus, the software requirements for managing zakat management should be well defined through overall scope within the development framework. Although with the linear process, which demanded that the organisation provided a limited set of functionalities to keep the business process stay on the right track. Actually, incremental iteratives become suitable methodologies that combines element of direct and parallel process flows, which can be implemented in the high intense scale, where the user usually gives a complaint about some features within the planning phase and further. On the other hand, requirement analysis can be more complex due to the changes over time so the discussion and development should promote teamwork, coordination, collaboration and adaptability throughout the life cycle of the project. Actually, informational efficiency is offered as a major prerequisite for the project management and means eliminating inefficiencies in accessing, exchanging and disseminating all kinds of information that are based on principles to enrich the customer, to develop change management, to anticipate the uncertainty, to leverage resources and to co-operate within the competition realm (Bajgoric, 2000).

Incremental process delivers the project into a small number of fragments or portions, in which a slice of functionality is delivered through cross-discipline work from the requirements to the deployment, while the iterative process accommodates the product that evolve over time that

enables the programmer to develop increasingly a more complete version through prototyping within a repetition schedule. The unified process groups create various phases that includes inception, elaboration, construction and transition and lead to an effective and efficient zakat management process. The measurement through zakat payers and *Asnaf* satisfaction could be done regularly while the system used could be more adaptive towards user requirement. Furthermore, the success of zakat management system depends on many critical factors that are needed to be in full control and managed by the responsible organisation, which is related to the leadership, culture, IT infrastructure and measurement process. It can drive the strategy forward; it makes or breaks the success of the strategy, where the reason to choose certain organisations can be answered accordingly.

Table I. Goal Analysis

Goal	Questions	Metrics
G1: Deconstruct and Raise Awareness	Q1: What are the methods KM serve to raise the citizen awareness? Q2: How does the KM help to assess the level of awareness in zakat recipients? Q3: Where is the proper place for KM to implement in terms of improving awareness? Q4: Who is responsible to control KM in achieving the goal in awareness?	M1: Individual, Institutional and Environmental Impact Analysis M2: Awareness Matrices M3: Retention Rates M4: Business Strategy and Rules M5: Fairly Distribution
G2: Increase Productivity and Effectiveness	Q1: How to deliver effective KM in zakat management system that fulfills the objective? Q2: How to improve efficiency in KM for zakat management system that matches with the expectation? Q3: What is the method to achieve sufficient budgetary process through KM?	M1: Lead-to-Sales % M2: Average Conversion Time M3: Percentage of Errors and Unavailability M3: SWOT Analysis M4: Quality and Quantity Control
G3: Community Practice	Q1: What are the KM preferences of payers to fulfill their obligation in zakat? Q2: When is the proper time to close the relationship with certain parties by using KM? Q3: How to facilitate the zakat report timely and periodically with KM?	M1: Index of satisfaction M2: Annual Zakat Report M3: Number of inter-organisation projects M4: Number of requests, feedbacks and complaints M5: Number of *Asnaf* and allocation
G4: Improve Collaborative Function	Q1: What is the measurement for satisfaction level in KM for ZMS? Q2: How to increase the channel for ZMS by KM? Q3: Why development of monitoring should provide quality assessment?	M1: Customer Behaviour Analysis M2: Customer Life Time Value M3: Customer Churn Rates M4: Alternative Payment Methods

	Q4: Who is responsible to achieve well-established viable corporate management?	M5: Development of Productive Type of Disbursement M6: Number of Media Coverage
G5: Maintain Trust & Partnership	Q1: How to maintain credibility in the process of disbursement through KM? Q2: What is the importance to improve staff responsibility, competence and skill? Q3: What factors determined the reliability of certain joint corporation with KM? Q4: Which process in ZMS should be coordinated and collaborated with a second or third party?	M1: Comparison between Budget and Expense M2: Customer Profitability Analysis M3: Customer Intimacy and Participation M4: Talent Management
G6: Sustain Institution Performance	Q1: How to support poverty reduction to improve economic development? Q2: What is the borderline that an organisation should deliver to the audience? Q3: What is the approach to improve continuously? Q4: Who has the authority to audit the achievement of an organisation?	M1: Comparison between Collection and Distribution M2: Business Strategic Rules M3: CRM Audit M4: Data Quality Assessment and Assurance M5: Performance Report M6: Plan-Do-Check-Act (PDCA)
G7: Better Quality of Networking & Resource Sharing	Q1: What is the business value offered to the stakeholders? Q2: How to encourage employee to proactively in committing the task?	M1: PESTEL Analysis M2: Standard Operational Process M3: Corporate Social Responsibilities
G8: Appropriate Service Management	Q1: What is the proper preparation for the volunteer? Q2: How to conduct conducive work culture and positive behaviour? Q3: How to maintain the service delivery in the periodical time manner?	M1: COBIT Maturity Model M2: Utilisation and Impact Analysis M3: Satisfaction Score M4: Staff Skill Enhancement Program
G9: Operational Cost Efficiency	Q1: How to allocate human resource management to provide operational excellency? Q2: How to utilise ICT effectively as enabler? Q3: What are the factors to determine success implementation of a certain device? Q4: Why KM has critical function to create good IT governance?	M1: Balanced Scorecard M2: Boston Consulting Group (BCG) Analysis M3: Number of Costing and Budgeting M4: Operational Plan Approval
G10: Integrated	Q1: What is the effective user assistance in the process of zakat service?	M1: Bounce and Visitation Rates M2: Number of Visitors or Engagement Metrics

Solution & Appreciation	Q2: Why the assets and facilities are important? Q3: Who is responsible to provide clear navigation and accessibility to the system?	M3: Porter 5 Forces Analysis

Having a goal analysis can demonstrate the importance of QA to meet the needs of providing solutions to various problems that have been identified at all stages of the ZMS, namely planning, collection, organising, distribution and disbursement (Lubis et al, 2018). Therefore, the person in charge of a particular activity at ZMS must have good leadership skills that can adapt to the needs of various units and divisions with the best coordination and collaboration culture that can improve the performance of each employee and volunteer. On the other hand, IT infrastructure also supports the success of ZMS where the process can be integrated and automated, where measurements and evaluations have been carried out periodically to maintain quality by identifying the status or level. There are many problems that occur in the collection and distribution of zakat, such as difficult administrative processes, unclear information, shortages of personnel and experts, etc., so this limitation can result in inefficiency and ineffective management of zakat, or the potentially low performance of zakat institutions. This occurs due to several problems such as lack of management experience, user commitment, information and the rising of legal issues (Lubis, 2012; Nasution et al, 2014).

Table II. Knowledge Unified Management (KUM) Categories

KM Activities	Collecting (Stuff) & Codification	Connecting (People) & Personalisation
Directed Information & Knowledge Search (Exploit)	Zakat Obligation Zakat Historical Practice Fatwa in Zakat Zakat Rates Zakat Categories Type Fair Allocation (Harvest)	Disbursement Type Vocational Skill Investment Process Information Gathering Administration Joint Collaboration (Harness)
Serendipity & Browsing (Explore)	Zakat Receivers Group Zakat Spread Assets and Facilities Information Tech. Information System (Hunting)	Service Maturity Level Productive Program Monitoring Process Quality of Life Poverty Reduction (Hypothesise)

People want to find an efficient and effective ZMS that can solve current problems and the problems mentioned above, so leadership, culture, IT infrastructure and good measurement are important points to consider. This critical success factor must synergise with KM to share and produce respectable knowledge about what the donors of zakat want and expect from the

current system. This can convince the public through good administration, while slow institutional response will only have a negative impact on the development of ZMS. It is suggested that zakat institutions use a flexible information system to monitor the *Asnaf* population in a certain area, so that state zakat institutions can visualise and place them according to their respective databases. This will help to geographically track and monitor the process of mapping the zakat recipient to formulate the proper strategy to engage them. The adoption of this type of technology in the form of a Geographical Information System (GIS) and the adoption of KM can broaden the objective and goal to the national level in poverty reduction by understanding the proper poverty measurement and assessment to form specific priorities due to limited and restricted resource that organization can incurred in certain time period before or after knowledge activities. In short, KUM have 4 (four) critical component as can be seen in table II, which are harvest and hunting related to collection and codification process as well as harness and hypothesise related to connection and personalization, which organization can decide upon the activities based on the need and flexible.

Actually, zakat institutions facing changes and increasing challenges are brought on by zakat payers' expectation and satisfaction pressures externally or the nature of the workplace internally. Thus, the strategy developed must identify the key needs and issues within the organisation in the first place before thinking the next inter-organisation partnership concept as the measurement for internal capability by providing a framework for addressing these kinds of issues. Firstly, identification of the primary attributes should be done in ZMS such as objective, planning, design, process, target area, role, ontology and taxonomy Secondly, there should be the creation of Information Zakat Centre (IZC) through collaboration with private organisations like public and private bank or post office under memo of understanding between them. Thirdly, a pilot project for ZMS should take place which includes DMS (Document System Management) and Portal System to test user needs, awareness, and readiness and requirement gaps through evidence. Fourthly, internal audit and competitive benchmarking should take place to investigate strength, weakness, opportunities, threats (SWOT) and risk management. Lastly, the zakat institution should have an action plan that gives details of delivery in activity, timescales, resources and budgets required for all actions and to exploit the benefits to support the general strategy.

Generally, managerial and administrative skills will control and maintain the following activities against critical failure both in internal and external factors such as complexity, differing views, lack of attention, lack of support, etc. Actually, zakat payers' expectation and satisfaction are the domain focus that should be strengthened to deliver competitive advantages to the stakeholders especially zakat payers. By ensuring these things are optimised to produce further knowledge that can enhance collection and distribution solution through KM is the main objective, should be achieved. Therefore, information-sharing related to the procedure to participate in the zakat program, type of zakat, the payment rate and relevant information should be available in the interactive way, which facilitate the exchange process with intends to strengthen its relationship within networks. In doing so, the recognition of proper knowledge

networks should be based on a clear understanding of the forms and functions to keep expected outcomes under track. In short, the action plan should be based on the willingness to share the utilised knowledge for the benefit of mass people with good intention related to the activity of allowing the organisations to seamlessly connect to the information channel, the requirement and the location (Prasetyo et al, 2020).

Table III. Balanced Scorecard (BSC)

Activity	Responsible	Resource	Indicator
Strengthen staff's skill, commitment and capability significantly	Operational Div.	The person capable of management and high motivation.	Number of training, workshops and seminars, involving Islam, IT, social and business subject.
Building the partnership closely	Administration Div.	All potential and relevant organisations in Indonesia from public until private.	Inter-organisation communication through good cooperation and coordination.
Identify and introduce a computerised zakat collection system	Operational Div.	SiZa (System Zakat), DMS (Document Management System), Portal System and e-Zakat.	Latest technology implementation, updates and upgrade.
Zakat Fund Management.	Financial Div.	Private and public banking institutions and Zakat Collection from Zakat payers.	Coordination and monitoring business units as well as social responsibility.
Educate Muslim communities about zakat obligation.	Operational Div.	Expertise Staff and Multimedia presentation.	Zakat collection statistic from various method of payment.
Maintain the quality of service in Zakat collection and distribution.	Administration Div.	Documentation, report and notes	Requirement analysis by Survey, Questionnaires or observation to User.
Geographical Information System (GIS) to monitoring the distribution.	Operational Div.	Research and development as well as the government support.	Implementation of GIS technology for decision-making purpose.
Annual report with media cooperation.	Financial Div.	Media Mass and Accumulation of financial report.	User trust by understanding the current status of their zakat.
Maintain and update *Asnaf* Status.	Administration Div.	Local committee, *Amil* and society.	The report on the total population of the *Asnaf* of each category.
Assets and facilities management.	Administration Div.	Assets and facilities such as motor, car, properties, camera, etc.	Record and documentation of assets and facilities that match with the actual data.

Educational program to Student and employee externally.	Operational Div.	School, University, Factory, Manufacturer, etc.	Number of programs executed and their implementation.
Benchmarking and study tour.	All Div.	Requirement Analysis and Planning.	Project implementation and execution meet the performance criteria.

The above balanced scorecard (BSC) derived on the platform of accessibility and flexibility towards the perspectives of the zakat function, which are user orientation, operational excellence, future orientation and business contribution, which aligned with the financial, customer, internal business and learning & growth perspective. It provides clear understanding on the mission, objective and measure that focus on the requirement analysis, evaluation criteria and target that the zakat institution should be achieved in a timely manner. Therefore, BSC will connect IT and business in the form of ZMS with KM through a contribution perspective in the dynamic measurement and management. On the other hand, the evaluation will be based on best practice in ZMS with the construction or implementation as the evolutionary approach that have the specific aim of efficiency in the development and operation through benefit optimisation. It also cannot guarantee an assurance for precise decisions but it presents an integral view over the objectives, results and indicators of performance. The requirement that the organisation will respond better to customer needs, change competitive conditions, and increase the level of environmental turbulence, encourages interest in the concept of agility (Power & Sohal, 2001; Rowley, 2007; Mcinerney & Koenig, 2011).

The main priorities in using the balanced scorecard are translating the vision that is aligning with the process, to develop a suitable plan in order to prioritise the focus resources to be utilised. Finally, the evaluation required the feedback and learning curve to indicate the level of performance for the future roles, such as reviewing plans and developing credible measures. BSC is an effective strategic management tool in public and non-profit organisations, together with the concept of intellectual capital (IC) are two strategic management methods that help identify and enhance an organisation's intellectual resources in the knowledge economy (Kong, 2010). However, KM can be utilised through creating and refining the repositories system, using repeatable processes, involving a commercial process, development of strategic knowledge capabilities and personalisation in terms of cartographic, organisational and social with the utilisation of a creative process of knowledge transformation and inception (Carlile & Rebentisch, 2003; Edosio, 2014; Gonzalez & Martins, 2017).

CONCLUSION

KM is extremely critical in the case of improving the zakat management activities especially after the utilisation process of technology in almost every turn. It can provide a solution in the missing link and existing gap in the transition phase or handoff stage, which normally required

a longer time to be identified. In conclusion, ZMS through KM can obtain several benefits such as faster decision making, competitive advantage, maintaining the innovation, best organisation culture and unified management. Therefore, the action plan should be imposed at the planning stage to anticipate the worst case scenario such as lack of understanding or exchange barrier when information should be shared immediately. It is expected that KUM as the framework can explain the comprehensive visibility and accessibility in utilizing the knowledge in every aspects to be integrated within organization in conducting the activities lifecycle to allow zakat organizers, which in this case masjid to work together bring the objective to success.

About the Author

Muharman Lubis received his Doctor of Philosophy and Master's degree in Information Technology from the International Islamic University Malaysia (IIUM) at 2017 and 2011 respectively while previously, he received his Bachelor degree in Information Technology from the University Utara Malaysia at 2008. He then, joined as a full time lecturer at Telkom University, School of Industrial Engineering in 2017. His current research interests include privacy protection, information security awareness, network management, knowledge management and user experience design.

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