

Decision Making Tools for Resource Allocation Based on *Maqāṣid* Al- Sharī‘ah

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Abstract

The major focus of past literature on Al-Maqāṣid was on developing the theory, and most of the discussion centered on its legal dimensions. The pioneering works emanated from scholars such as, Al-Juwayni (n.d), Al-Ghazali (1901), Al-Shatibi (n.d), Ibn ‘Ashur (1998) and Ibn Taymiyyah (al-Raysuni, 1992). Recently, the application of Al-Maqāṣid in various disciplines including economics and finance has been gaining prominence. Among the leading economists who have written on the subject, to mention a few are Chapra (1985; 2004), Siddiqi (2000), Ahmad (2000), Atya (2003), Hasan (2004) and Al-Najjar (2008). Their works however, relate Al-Maqāṣid to the discipline of economics in a broad theoretical framework. Dusuki (2005) went a step further relating Al-Maqāṣid to Corporate Social Responsibility. Hameed et al. (2005) tried to develop what they termed as ‘Islamicity Disclosure Index’ to measure and compare the performances of two Islamic banks. A refined work by Mustafa et al. (2008) developed a quantitative performance measure for Islamic banking from the theory of Al-Maqāṣid. The present study is taking Al-Maqāṣid a step further. It develops a decision making tool based on Al-Maqāṣid al-Sharī‘ah and their levels of Maṣlaḥah for the managers of firms to use in allocating their investible resources to vital sectors of the economy. The developed model can be extended to other decision making problems. Thus, this contribution opens a

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new direction of research: the analytic operationalization of Al-Maqāṣid al-Sharīʿah.

Key words: *Maqāṣid al-Sharīʿah*, decision making, weights, allocation of investible resources

1. Introduction

Decision making is essential for every individual, every firm and policy makers in a government. It is extremely important in the area of businesses and investments because right decisions made reflect positively on the efficiency of the business while wrong decisions can be great liabilities and can cost the survival of the business. In conventional economics, firms have to make the best choice among competing investible resources in order to maximize profit. Hence, due to scarcity and unlimited wants, firms are always faced with the decision making economic problems of what to produce, how to produce and for whom to produce. From the Islamic perspective, firms are also faced with the same decision making economic problems of what to produce, how to produce and for whom to produce, among others. However, there is a growing realization that it is no longer sufficient for firms from the perspective of Islamic economics and finance to address these economic problems only from the narrow unidimensional profit maximization objective. The Islamic firm's decision for allocating investible resources must ideally be guided by the objectives of the Shari'ah or *Al-Maqāṣid al-Sharīʿah*.

Past literature on *Al-Maqāṣid* focused on developing the theory, and most of the discussion centered on its legal dimensions. Some of these pioneering literature include works from scholars such as Al-Juwayni (n.d), Al-Ghazali (1901), Al-Shatibi (n.d), Ibn 'Ashur (1998) and Ibn Taymiyyah (al-Raysuni, 1992). Recently, the application of *Al-Maqāṣid* in various disciplines including economics and finance has been gaining prominence¹. There are Muslim economists who see the need for revisiting the Islamic worldview to take a comprehensive approach to Islamic economics and finance based on *Maqāṣid al-Sharīʿah*. This approach incorporates the stakeholders interests plus the socio-economic dimensions into the objectives of Islamic economics and finance (Chapra, 1992).

¹ See volumes 1-3 of the proceedings of International Conference on Islamic Jurisprudence and the Challenges of the 21st Century: *Maqāṣid al-Sharīʿah* and Its realization in Contemporary Societies, organized by Department of Fiqh and Uṣūl al Fiqh in collaboration with the International Institute of Muslim Unity, IIUM, 8-10 August 2006.

Therefore, several modern Muslim scholars have begun focusing their attention on the *Maqāṣid* approach to Islamic economics and finance. For example, Al-Najjar (2008) has analysed the legal perspective of *Al-Maqāṣid* al-Sharī'ah in the context of its contemporary economic application. Furthermore, there are some prominent economists including Chapra (1985; 2004), Siddiqi (2000), Hasan (2004) and Ahmad (2000) who have written on the subject. Their works however, relate *Al-Maqāṣid* to the discipline of economics in a broad theoretical framework. Dusuki (2005) went a step further relating *Al-Maqāṣid* to Corporate Social Responsibility. Hameed et al. (2005) tried to develop what they termed as 'Islamicity Disclosure Index' to measure and compare the performances of two Islamic banks. A refined work by Mustafa et al. (2008) developed a quantitative performance measure for Islamic banking from the theory of *Al-Maqāṣid*. The present study is taking *Al-Maqāṣid* a step further. Its main contribution lies in translating *Al-Maqāṣid* from the theoretical level down to the operational level. It develops a decision making tool based on *Al-Maqāṣid* al-Sharī'ah for the managers of firms to use in allocating their investible resources to vital sectors of the economy. Hence, the following are the salient objectives of this paper:

1. Discuss the application of *Al-Maqāṣid* al-Sharī'ah in the areas of economics and finance
2. Discuss how the elements of *Al-Maqāṣid* al-Sharī'ah can be used as a decision making tool to prioritize the allocation of investible resources
3. Develop a model from the elements of *Maqāṣid* al-Sharī'ah as a decision making tool for prioritizing the allocation of investible resources
4. Illustrate the model developed in 3 by an example
5. Provide recommendations for further research

The paper is divided into five sections including the introductory section. The second section reviews the literature on the theory of *Al-Maqāṣid* al-Sharī'ah and its application in economics and finance. The third section discusses *Al-Maqāṣid* Al-Sharī'ah and decision making in investment. The fourth section presents a model as a decision making tool for prioritizing resource allocation based on *Al-Maqāṣid*. The developed model is illustrated by an example with hypothetical data. The final section concludes the study and makes suggestions for future research.

2. *Al-Maqāṣid* Al-Sharī'ah and their Applications

Muslim scholars have developed a theory known as *Maqāṣid* al-Sharī'ah (the Objectives of the Shari'ah). According to al-Raysuni (1992), the theory can be traced as far as the third century after Hijrah (9th Century A.D.). Nearly all the

scholars of *Al-Maqāṣid* are unanimous about the general objectives of al-Sharīḥ, which are to promote virtues (Jalb al-Masalih) and remove harm (Dar' al-Mafasid) (Ibn 'Ashur, 1998). However, some of these scholars differ in their classification of the specific objectives although there are some similarities in them (al-Raysuni, 1992). Nevertheless, there is a general consensus that the primary objectives of the Shari'ah (*Al-Maqāṣid*) is to preserve the five essential elements, namely al-Din (religion), al-*Nafs* (life), al-*'Aql* (intellect), al-*Nasl* (family institution) and *Al-Māl* (wealth). Al-Shatibi described these five elements (Al-Daruriyat al-Khams) as a universal concept (al-Raysuni, 1992). Meaning they extend at all times, in all aspects and are applicable to all people regardless of their religious, cultural and ideological affiliations.

The application of *Al-Maqāṣid* al-Sharīḥ has varied across several disciplines. Many of the contemporary applications have been in the legal circle where *al-Maṣlaḥah* has been used by Shari'ah Advisory Councils of many Islamic banks as the basis for issuing fatwas. Although the parameters for the application of *Maṣlaḥah* have been defined by several Shari'ah bodies and academies (Bouheraoua, 2008), these applications have hardly been extended beyond the fatwa sessions. Whereas in economics and finance, several literature on *Al-Maqāṣid* al-Sharīḥ is essentially theoretical in nature, for example (Chapra (1985; 2004), Siddiqi (2000), Hasan (2004) and Ahmad, (2000). Nevertheless, there are few studies that have tried to operationalize *Al-Maqāṣid* in the areas of economics and finance. For example, 'Abdul Mun'im (1991) used the five elements of *Maqāṣid* and their three levels of *Maṣlaḥah*, discussed in Section 3, as a basis to develop a consumption model for Islamic economic system. 'Abdul Mun'im included in the model the classification of goods and services, economic activities and the policy measures that could be adopted at the various levels to realize the *Maqāṣid* al-Sharīḥ. Although it is a commendable effort, the application of the model is generic in nature and is directed more towards the state institutions. Our model in the present study is an extension of the previous studies in the sense that it effectively operationalizes *Al-Maqāṣid* into a decision making tool that can be used by firms to allocate their investible resources. This work opens a new direction of research: the analytic operationalization of *Al-Maqāṣid* al-Sharīḥ.

3. *Al-Maqāṣid* Al-Sharīḥ and Decision Making in Investment

In conventional economics, nearly all the decision making theories such as the marginal productivity and the utility theories are directed towards the goal of profit maximization. In the Islamic theory, decision making is multidimensional. The firm's decision incorporates economic, social, political and behavioral

dimensions. The role of the firm is to preserve and promote the welfare of the society, the economy and the family institution. The five elements of *Al-Maqāṣid* constitute an adequate framework to achieve these objectives. Hence, for example, an investment in agriculture sector will directly contribute to the preservation of three elements, namely al-Din, al-Nafs and *Al-Māl*. In terms of al-Din, the sector will promote investment in Sharī'ah compliant industry thus promoting the cause of the religion as well, whereas the *Nafs* benefits from such investment in terms of fulfilling its basic needs and maintaining its health. Similarly, the objective of investment in the agriculture sector, like any investment, is to preserve and promote wealth in terms of profitability, economic growth, *Sadaqat*, etc..

Besides the five essential elements of *Al-Maqāṣid*, past Muslim scholars, notably al-Ghazali (1901), al-Shatibi (n.d) and Ibn 'Ashur (1998), also discussed the levels of *Al-Maqāṣid*, which they termed as *Maṣlaḥah* (public interest). These levels are three: Daruriyah (Necessity), Hajjiyyah (Complement) and Tahsiniyyah (Embellishment). Necessity is an important level that is used to preserve the five essential elements. For example, to preserve life, the basic needs are required (food, housing, education, medication, etc). Complement is at a lower level than necessity. It includes all activities that facilitate the preservation of the five essential elements. For instance, while housing is a basic need, one needs facilities inside the house to make life comfortable. The last level of *Maṣlaḥah* is Embellishment. This level relates to activities that decorate life.

4. The Model

As stated in the introductory section, the third objective of this paper is to develop a model from the elements of *Al-Maqāṣid* al-Sharī'ah. The model can be used as a decision making tool for prioritizing the allocation of investible resources. The five elements of *Al-Maqāṣid* and the three levels of *Maṣlaḥah* form the theoretical components of the model. We shall thereafter denote our model by MSB Model (*Maqāṣid* al-Sharī'ah Based Model). This section presents the general steps and the operational steps of the MSB Model as follows:

4.1. General Steps

The following are the five general steps developed in the MSB Model:

1. Identifying the economic sectors and collecting real economic data related to them.

2. Evaluating the identified sectors based on the five *Maqāṣid* al-Sharīʿah Elements (criteria) by assigning weights to the three levels of *Maṣlahah* (sub-criteria).
3. Obtaining aggregate weights or global evaluation for each sector and each level of *Maṣlahah*.
4. Ranking the sectors according to the aggregate weights of the Dharurah level. In case of ties, use lower levels.
5. Allocating investible resources to the identified sectors using the aggregate weights.

4.2. Operational Steps

Assume that an Islamic institution has identified n sectors A_1, A_2, \dots, A_n in the economy in which to invest. The problem the institution faces is how to allocate the available resources to the n sectors. The institution can use the proposed step-by-step *Al-Maqāṣid* Al-Sharīʿah Based Model (MSB Model) for solving this problem. This sub-section presents the operational steps of the proposed MSB Model as follows:

Step 1. Identifying the Sectors and Data Collection

Assume that an Islamic firm has identified n sectors A_1, A_2, \dots, A_n and has collected real data about them. For simplicity of presentation, we will explain the Steps 2 and 3 for sector A_1 only.

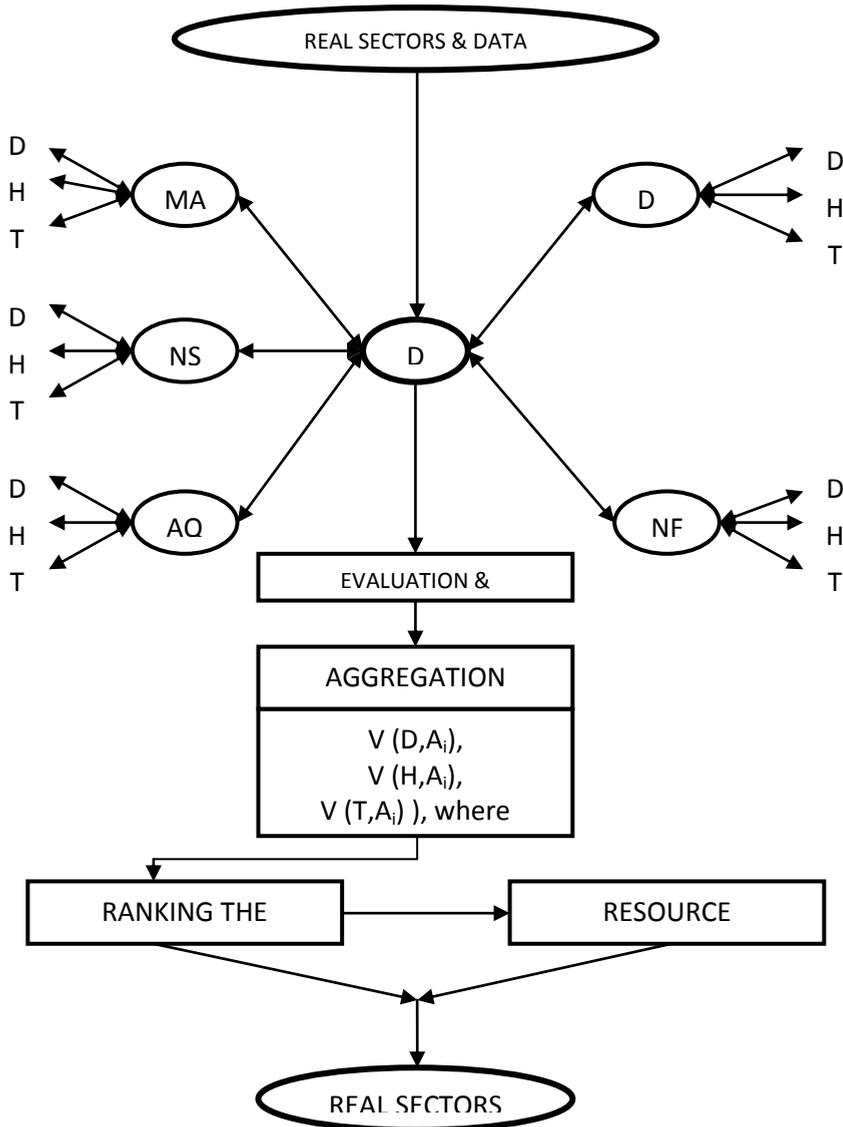
Step 2. Evaluating the Sectors

The sectors identified in Step 1 above and their respective real economic data are presented to experts who are versed in economics, Islamic economics and Sharīʿah. The experts determine the status of the sectors. To simplify our analysis, say they determine the status of sector A_1 with respect to each of the five *Maqāṣid* Al-Sharīʿah: *Deen* (DN), *Nafs* (NF), *ʿAql* (AQ), *Nasl* (NS) and *Māl* (MA). In turn, they evaluate each of the Maqasad based on the three well known levels of *Maṣlahah*: Dharurah (D), Hajiyyah (H) and Tahsiniyyah (T). Thus, for each Maqasad, the experts assign three weights to the possible levels D, H and T based on the real data they were given earlier. The weights represent the degree of

strength of the three levels of the considered Maqṣad with respect to the sector A_1 .

The general steps used in the MSB Model from steps 1-5 are summarized in Figure 1 below:

Figure 1



i) Consider the *Maqsad DN*, the experts assign the weights $\lambda_D^{DN}(A_1)$, $\lambda_H^{DN}(A_1)$ and $\lambda_T^{DN}(A_1)$ to the three levels D, H and T respectively. By definition, the three weights verify the following constraints:

$$\lambda_D^{DN}(A_1) + \lambda_H^{DN}(A_1) + \lambda_T^{DN}(A_1) = 1, \\ \lambda_D^{DN}(A_1) \geq 0, \lambda_H^{DN}(A_1) \geq 0 \text{ and } \lambda_T^{DN}(A_1) \geq 0.$$

ii) Similarly for *Maqsad NF*, we get the weights $\lambda_D^{NF}(A_1)$, $\lambda_H^{NF}(A_1)$ and $\lambda_T^{NF}(A_1)$

$$\lambda_D^{NF}(A_1) + \lambda_H^{NF}(A_1) + \lambda_T^{NF}(A_1) = 1, \\ \lambda_D^{NF}(A_1) \geq 0, \lambda_H^{NF}(A_1) \geq 0 \text{ and } \lambda_T^{NF}(A_1) \geq 0.$$

iii) For *Maqsad AQ*, we get the weights $\lambda_D^{AQ}(A_1)$, $\lambda_H^{AQ}(A_1)$ and $\lambda_T^{AQ}(A_1)$

$$\lambda_D^{AQ}(A_1) + \lambda_H^{AQ}(A_1) + \lambda_T^{AQ}(A_1) = 1, \\ \lambda_D^{AQ}(A_1) \geq 0, \lambda_H^{AQ}(A_1) \geq 0 \text{ and } \lambda_T^{AQ}(A_1) \geq 0.$$

iv) For *Maqsad NS*, we get the weights $\lambda_D^{NS}(A_1)$, $\lambda_H^{NS}(A_1)$ and $\lambda_T^{NS}(A_1)$

$$\lambda_D^{NS}(A_1) + \lambda_H^{NS}(A_1) + \lambda_T^{NS}(A_1) = 1, \\ \lambda_D^{NS}(A_1) \geq 0, \lambda_H^{NS}(A_1) \geq 0 \text{ and } \lambda_T^{NS}(A_1) \geq 0.$$

v) For *Maqsad MA*, we get the weights $\lambda_D^{MA}(A_1)$, $\lambda_H^{MA}(A_1)$ and $\lambda_T^{MA}(A_1)$

$$\lambda_D^{MA}(A_1) + \lambda_H^{MA}(A_1) + \lambda_T^{MA}(A_1) = 1, \\ \lambda_D^{MA}(A_1) \geq 0, \lambda_H^{MA}(A_1) \geq 0 \text{ and } \lambda_T^{MA}(A_1) \geq 0$$

Step 3. Aggregating the Weights

In the third operational step, we compute a global or aggregate evaluation of the sector A_1 with respect to each of the three levels D, H and T, based on their weights with respect to all the *Maqāsid*. We define the evaluation as follows:

Agregate evaluation with respect to the level D,

$$V(D, A_1) = \lambda_D^{DN}(A_1) + \lambda_D^{NF}(A_1) + \lambda_D^{AQ}(A_1) + \lambda_D^{NS}(A_1) + \lambda_D^{MA}(A_1).$$

That is, we sum up all weights related to the level D through the five *Maqāsid*

Agregate evaluation with respect to the level H,

$$V(H, A_1) = \lambda_H^{DN}(A_1) + \lambda_H^{NF}(A_1) + \lambda_H^{AQ}(A_1) + \lambda_H^{NS}(A_1) + \lambda_H^{MA}(A_1).$$

That is, we sum up all weights related to the level H through the five *Maqāṣid*

Agregate evaluation with respect to the level T,

$$V(T, A_1) = \lambda_T^{DN}(A_1) + \lambda_T^{NF}(A_1) + \lambda_T^{AQ}(A_1) + \lambda_T^{NS}(A_1) + \lambda_T^{MA}(A_1).$$

That is, we sum up all weights related to the level T through the five *Maqāṣid*.

We perform the Steps 2-3 for each of the remaining sectors A_2, \dots, A_n . Thus, we obtain three global evaluations for each sector.

The operational Steps 2-3 for sector (A1) are summarized in Table 1 below:

Table 1
Weight Aggregation for Sector (A₁)

Level of <i>Maṣlahah</i>	<i>Maqāṣid</i>					Aggregate Weight
	<i>Al-Din</i> (DN)	<i>Al-Nafs</i> (NS)	<i>al-‘Aql</i> (AQ)	<i>al-Nasl</i> (NS)	<i>Al-Māl</i> (MA)	
Darurah (D)	λ_D^{DN}	λ_D^{NF}	λ_D^{AQ}	λ_D^{NS}	λ_D^{MA}	V (D, A ₁)
Hajiyah (H)	λ_H^{DN}	λ_H^{NF}	λ_H^{AQ}	λ_H^{NS}	λ_H^{MA}	V (H, A ₁)
Tahsiniyah (T)	λ_T^{DN}	λ_T^{NF}	λ_T^{AQ}	λ_T^{NS}	λ_T^{MA}	V (T, A ₁)
TOTAL	1	1	1	1	1	

Where,

λ_D^{DN} = the weight for the *Maqṣad* of *al-Din* at the level of Darurah in Sector (A₁),

λ_H^{DN} = the weight for the *Maqṣad* of *al-Din* at the level of Hajiyah in Sector (A₁),

λ_T^{DN} = the weight for the *Maqṣad* of *al-Din* at the level of Tahsiniyyah in Sector (A₁),

λ_D^{NF} = the weight for the *Maqṣad* of *al-Nafs* at the level of Darurah in Sector (A₁),

λ_H^{NF} = the weight for the *Maqṣad* of *al-Nafs* at the level of Hajiyah in Sector (A₁),

λ_T^{NF} = the weight for the *Maqṣad* of *al-Nafs* at the level of Tahsiniyyah in Sector (A₁),

λ_D^{AQ} = the weight for the *Maqşad* of *al-‘Aql* at the level of Darurah in Sector (A_1),

λ_H^{AQ} = the weight for the *Maqşad* of *al-‘Aql* at the level of Hajiyyah in Sector (A_1),

λ_T^{AQ} = the weight for the *Maqşad* of *al-‘Aql* at the level of Tahsiniyyah in Sector (A_1),

λ_D^{NS} = the weight for the *Maqşad* of *al-Nasl* at the level of Darurah in Sector (A_1),

λ_H^{NS} = the weight for the *Maqşad* of *al-Nasl* at the level of Hajiyyah in Sector (A_1),

λ_T^{NS} = the weight for the *Maqşad* of *al-Nasl* at the level of Tahsiniyyah in Sector (A_1),

λ_D^{MA} = the weight for the *Maqşad* of *Al-Māl* at the level of Darurah in Sector (A_1),

λ_H^{MA} = the weight for the *Maqşad* of *Al-Māl* at the level of Hajiyyah in Sector (A_1),

λ_T^{MA} = the weight for the *Maqşad* of *Al-Māl* at the level of Tahsiniyyah in Sector (A_1),

$V(D, A_1)$ = the aggregate weight of the level of Darurah for the five *Maqāşid* in Sector (A_1),

$V(H, A_1)$ = the aggregate weight of the level of Hajiyyah for the five *Maqāşid* in Sector (A_1),

$V(T, A_1)$ = the aggregate weight of the level of Tahsiniyyah for the five *Maqāşid* in Sector (A_1).

Similar evaluations can be computed for the remaining sectors A_2, \dots, A_n .

Step 4. *Ranking the Sectors*

In order to rank the sectors according to their level of necessity, we use the following rule:

Rank the sectors according to the level D via the values

$V(D, A_1), V(D, A_2), \dots, V(D, A_n)$.

The first being the one with highest value and the last being the one with the lowest value.

In case of a tie between two values (two $V(D, .)$ s), one can use the second level, H, of evaluations of sectors

$V(H, A_1), V(H, A_2), \dots, V(H, A_n)$

in order to discriminate between the tied sectors by comparing the corresponding values.

In case some ties remain, the decision makers can use the lowest level T of evaluations

$V(T, A_1), V(T, A_2), \dots, V(T, A_n)$

to discriminate between the tied sectors by comparing the corresponding values.

In case some ties remain, we conclude that the decision maker is indifferent with respect to the tied sectors. He may introduce some new criteria for further discrimination or rank the tied sector by an arbitrarily chosen order.

Step 5. Allocation of Investible Resources

In case the decision maker wants to make a budget allocation that is consistent with the ranking provided by steps 1-4, he/she can proceed as follows:

Let us denote by $P(A_i)$ the percentage of the budget allocated to sector A_i , then we define $P(A_i)$ by

$$P(A_i) = \frac{V(D, A_i)}{\sum_{j=1}^n V(D, A_j)} \times 100.$$

Thus the allocation of the Budget among the n sectors will be $P(A_1), P(A_2), \dots, P(A_n)$.

Remark 4.1.

Other aggregation methods can be used in the aggregation Step 3, for example, instead of the sum of the weights, the decision makers can take the minimum of the weights

$$V(D, A_1) = \text{Min}\{ \lambda_D^{DN}(A_1), \lambda_D^{NF}(A_1), \lambda_D^{AQ}(A_1), \lambda_D^{NS}(A_1), \lambda_D^{MA}(A_1) \},$$

the other aggregate weights can be computed similarly.

4.3. Application of the MSB Model

In this section, we provide an illustrative example for the application of the MSB Model using real data from one of the OIC countries, namely Sudan.

Assuming there is an institution, say X in Sudan. Institution X has decided to rank and allocate investible resources to the vital sectors of the Sudanese economy. Institution X to allocate its investible resources among the competing alternatives (sectors) based on *Al-Maqāṣid al-Sharī‘ah*. Suppose institution X decides to use the MSB Model as a decision making tool to solve the resource allocation problem in hand. Then institution X would follow the Model’s 5 operational steps. In

operational step 1, we have identified on behalf of Institution X three vital sectors, namely agriculture, education and health care in the economy of Sudan and we managed to collect real economic data related to the three sectors. The data indicate that: 1) In agriculture, although the calories intake of the Sudanese population witnessed an increase from 1960 in 1999 to 2270 in 2005, 22% of its population remain undernourished (FAO, 2010), 2) In the education sector, according to the World Education Indicators (WEI, 2010) only 69.3 percent of the Sudanese population are literate and 3) The WHO international standard requires one doctor per 1500 population. In Sudan, the data in the healthcare sector shows the ratio of doctor to population as 22.6 for 100,000 population, meaning 1:4500.

In fulfilling steps 2-3, We presented the real data for these three sectors mentioned above to five expert who are versed in Shari'ah, economics and finance to evaluate the three sectors in relation to the three levels of *Maṣlaḥah* and the five *Maqāṣid* (essential elements) and to assign weights accordingly. All the five experts hold doctoral degrees, 80% of have at least 10 publications in the related field to their credit and 70% of them are Shari'ah advisors to Islamic banks. This brief profile shows that the choice of the five experts are valid. The weights they have assigned and the global or aggregate weights of the *Maṣlaḥah* levels of the three sectors, individually, are presented in the following Table 2 below:

Table 2
Weight Aggregation for the Agriculture Sector (A₁)

Level of <i>Maṣlaḥah</i>	<i>Maqāṣid</i> (Average Weights)					Aggregate Weight
	<i>Al-Din</i> (DN)	<i>Al-Nafs</i> (NS)	<i>al-'Aql</i> (AQ)	<i>al-Nasl</i> (NS)	<i>Al-Māl</i> (MA)	
Darurah (D)	0.57	0.64	0.5	0.53	0.46	0.54
Hajjiyyah (H) Tahsiniyah	0.32	0.24	0.33	0.3	0.36	0.31
(T)	0.11	0.12	0.17	0.17	0.18	0.15
TOTAL	1	1	1	1	1	1

Where, for Agriculture (Sector A₁):

$\lambda_D^{DN} = 0.57$ the weight for the *Maqṣad* of *al-Din* at the level of Darurah in Sector (A₁),

$\lambda_H^{DN} = 0.32$, the weight for the *Maqṣad* of *al-Din* at the level of Hajjiyyah in Sector (A₁),

$\lambda_T^{DN}=0.11$, the weight for the *Maqṣad* of *al-Din* at the level of Tahsiniyyah in Sector (A_1),

$\lambda_D^{NF}=0.64$, the weight for the *Maqṣad* of *al-Nafs* at the level of Darurah in Sector (A_1),

$\lambda_H^{NF}=0.24$, the weight for the *Maqṣad* of *al-Nafs* at the level of Hajiyyah in Sector (A_1),

$\lambda_T^{NF}=0.12$, the weight for the *Maqṣad* of *al-Nafs* at the level of Tahsiniyyah in Sector (A_1),

$\lambda_D^{AQ}=0.5$, the weight for the *Maqṣad* of *al-‘Aql* at the level of Darurah in Sector (A_1),

$\lambda_H^{AQ}=0.33$, the weight for the *Maqṣad* of *al-‘Aql* at the level of Hajiyyah in Sector (A_1),

$\lambda_T^{AQ}=0.17$, the weight for the *Maqṣad* of *al-‘Aql* at the level of Tahsiniyyah in Sector (A_1),

$\lambda_D^{NS}=0.53$, the weight for the *Maqṣad* of *al-Nasl* at the level of Darurah in Sector (A_1),

$\lambda_H^{NS}=0.3$, the weight for the *Maqṣad* of *al-Nasl* at the level of Hajiyyah in Sector (A_1),

$\lambda_T^{NS}=0.17$, the weight for the *Maqṣad* of *al-Nasl* at the level of Tahsiniyyah in Sector (A_1),

$\lambda_D^{MA}=0.46$, the weight for the *Maqṣad* of *Al-Māl* at the level of Darurah in Sector (A_1),

$\lambda_H^{MA}=0.36$, the weight for the *Maqṣad* of *Al-Māl* at the level of Hajiyyah in Sector (A_1),

$\lambda_T^{MA}=0.18$, the weight for the *Maqṣad* of *Al-Māl* at the level of Tahsiniyyah in Sector (A_1).

Darurah (D) aggregate weight for Agriculture Sector (A_1)

$$V(D, A_1) = \lambda_D^{DN} + \lambda_D^{NF} + \lambda_D^{AQ} + \lambda_D^{NS} + \lambda_D^{MA} = 0.57 + 0.64 + 0.5 + 0.53 + 0.46 = \mathbf{0.54},$$

is the aggregate weight of the level of Darurah for the Agriculture Sector (A_1) with respect to the five *Maqāṣid*. It is the sum of the entries of the row corresponding to the *Maṣlahah* level Al-Darurah (D) in the Table 2.

Hajiyyah (H) aggregate weight for Agriculture Sector (A_1)

$$V(H, A_1) = \lambda_H^{DN}(A_1) + \lambda_H^{NF}(A_1) + \lambda_H^{AQ}(A_1) + \lambda_H^{NS}(A_1) + \lambda_H^{MA}(A_1)$$

$= 0.32+0.24+0.33+0.3+0.36 = \mathbf{0.31}$, is the aggregate weight of Hajiyyah level for the Agriculture Sector (A_1) with respect to the five *Maqāṣid*. It is the sum of the entries of the row corresponding to the Hajiyyah (H) level in Table 2.

Tahsiniyyah (T) aggregate weight for Agriculture Sector (A_1)

$$V(T, A_1) = \lambda_T^{DN}(A_1) + \lambda_T^{NF}(A_1) + \lambda_T^{AQ}(A_1) + \lambda_T^{NS}(A_1) + \lambda_T^{MA}(A_1)$$

$= 0.11+0.12+0.17+0.17+0.18 = \mathbf{0.15}$, is the aggregate weight of Tahsiniyyah level for the Agriculture Sector (A_1) with respect to the five *Maqāṣid*. It is the sum of the entries of the row corresponding to the Tahsiniyyah (T) level in Table 2.

Similar explanations and computations apply to the Education Sector (A_2) and the Construction Sector (A_3) in the two tables below.

- For the Education sector (A_2), the computations are shown in Tables 3. The aggregate weights for this sector, $V(D, A_2)$, $V(H, A_2)$ and $V(T, A_2)$, are shown in the last column of the Table 3 as 0.56, 0.27 and 0.17 respectively.
- For the health care Sector (A_3), the computations are shown in Table 4. The aggregate weights for this sector, $V(D, A_3)$, $V(H, A_3)$ and $V(T, A_3)$, are shown in the last column of Table 4 as 3.7, 1 and 0.3 respectively.

Table 3
Weight Aggregation for the Education Sector (A_2)

Level of <i>Maṣlahah</i>	<i>Maqāṣid</i>					Aggregate Weight
	Al-Din (DN)	Al-Nafs (NS)	al- ^c Aql (AQ)	al-Nasl (NS)	Al-Māl (MA)	
Darurah (D)	0.65	0.48	0.59	0.52	0.54	0.56
Hajiyyah (H)	0.27	0.24	0.26	0.32	0.27	0.27
Tahsiniyyah (T)	0.08	0.28	0.15	0.16	0.19	0.17
TOTAL	1	1	1	1	1	1

Table 4
Weight Aggregation for the Health Care Sector (A₃)

Level of <i>Maṣlahah</i>	<i>Maqāṣid</i>					Aggregate Weight
	Al-Din (DN)	Al-Nafs (NS)	al-‘Aql (AQ)	al-Nasl (NS)	Al-Māl (MA)	
Al-Darurah (D)	0.6	0.8	0.4	0.7	0.45	0.59
Al-Hajjiyyah (H)	0.26	0.22	0.28	0.26	0.31	0.27
Al-Tahsinayah (T)	0.15	0.09	0.24	0.1	0.24	0.14
TOTAL	1	1	1	1	1	1

According to Step 4, we rank the sectors based on the *Maṣlahah* level of Darurah. We have

$V(D,A_1) = 0.54$ for agriculture sector, $V(D,A_2) = 0.56$ for education Sector and $V(D,A_3) = 0.59$ for health care sector. We have $V(D,A_1) = 0.54 < V(D,A_2) = 0.56 < V(D,A_3) = 0.59$

Thus, the ranking is : Health Care Sector comes first, then Education Sector and the last is Agriculture Sector. The decision makers can stop at this step, then allocate the resources as they want. In case, the decision makers want to allocate the resources based on the aggregate weights found in Step 4, then Step 5 can be implemented as follows.

Assume an amount Z is available, then Z has to be allocated as follows:

For Agriculture Sector (A₁)

$$P(A_1) = \frac{V(D,A_1)}{\sum_{j=1}^n V(D,A_j)} \times 100 = \frac{0.54}{0.54+0.56+0.59} \times 100 = \frac{0.54}{1.69} \times 100 = 32\%$$
 of the available amount of Z.

For the Education Sector (A₂)

$$P(A_2) = \frac{V(D,A_2)}{\sum_{j=1}^n V(D,A_j)} \times 100 = \frac{0.56}{0.54+0.56+0.59} \times 100 = \frac{0.56}{1.69} \times 100 = 33\%$$
 of the available amount Z.

For the Health Care Sector (A₃)

$$P(A_3) = \frac{V(D, A_3)}{\sum_{j=1}^n V(D, A_j)} \times 100 = \frac{0.59}{0.54 + 0.56 + 0.59} \times 100 = \frac{0.59}{1.69} \times 100 = 35\% \text{ of the available amount } Z.$$

Remark 4.2.

The allocation of resources by the MSB model reflects *Al-Maqāṣid* al-Sharī‘ah based priorities among the sectors. From the example, it is clear that the MSB model is easy to understand and to implement. Moreover, it can be extended to similar decision making problem.

5. Conclusion

In this paper, we have presented a decision making tool based on the essential elements of *Al-Maqāṣid* al-Sharī‘ah and their levels of *Maṣlaḥah* for Islamic firms to use in allocating investible resources, the MSB model. The main features of MSB are simplicity and comprehensiveness. It is simple in the sense that it can be understood and easily implemented by decision makers, whereas its comprehensiveness lies in the fact that the decision process encompasses socio-economic dimensions. Moreover, in using the MSB model, the decision making process would be more Shari’ah compliant than using conventional models. The presented model can be extended and applied to other decision making problems. We hope that this paper will trigger the interest of scholars and researchers for exploring this new direction of research: the analytic operationalization of *Maqāṣid* al-Sharī‘ah.

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