

Quest for Research Excellence On Computing, Mathematics and Statistics

Editors

Kor Liew Kee

Kamarul Ariffin Mansor

Asmahani Nayan

Shahida Farhan Zakaria

Zanariah Idrus

**Quest for Research Excellence on Computing,
Mathematics and Statistics**

Chapters in Book

The 2nd International Conference on Computing, Mathematics
and Statistics (iCMS2015)

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**Technology Assistance for Kids with Learning Disabilities:
Challenges and Opportunities**

*Suhailah Mohd Yusof, Noor Hasnita Abdul Talib, and Jasmin Ilyani
Ahmad*

CHAPTER 34

Ranking Islamic Corporate Social Responsibility Activities under Product Development Theme using Analytic Hierarchy Process

Shahida Farhan Zakaria, Wan-Asma[‘] Wan-Abu-Bakar,
Roshima Said, Sharifah Nazura Syed-Noh, and Abd-Razak
Ahmad

Abstract. Corporate social responsibility (CSR) initiatives are becoming more popular as companies realize the positive impact the CSR activities have on the goodwill of the companies. For shariah compliant companies the CSR activities or policies must cater to the concept of *maslahah* (public good or interest) and satisfy the objectives of Shariah. In this paper we aim to help companies identify important CSR activities which are of more interest to the consumers. Using analytics hierarchy process, we rank the importance CSR activities and policies implemented by companies when developing their products. The results of the analysis showed that activities and policies that are deemed as important are *‘developing products that have safety features’*, *‘disclosing products that meet safety standards’*, and *‘training employees in developing safety standards for processes’*.

Keywords: analytic hierarchy process; ranking; corporate social responsibility; product development.

1 Introduction

In these days, business entities are not only expected to maximize profits but society expects them to voluntarily contribute to the wellbeing of the society and their employees. These voluntary works are known as corporate social responsibility (CSR) activities. The World Bank defines CSR as contributions by owners of commercial entities towards sustainable development through working with their employees and their families, local community and the society as a whole. It aims to upgrade the people's living standards through these initiatives [6]. According to the European Commission, CSR practices occur when companies integrate social and environmental concerns in their business operations [7].

By using analytics hierarchy process (AHP), the aim of this paper is to highlight the importance of certain CSR initiatives compared to the others. The initiatives are companies' activities or policies that are involved when companies develop their commercial or business products. The CSR activities selected are activities that fulfilled the objectives of Shariah (*maqasid al shariah*). As the activities or policies are based on Islamic ethical values, we name the CSR activities as i-CSR activities. The policies or activities had been identified and categorized by [8] and we complement the work of [1] in ranking the activities or policies involved in product development.

This paper is structured as follows. The next section reviews works related to Islamic CSR. Section 3 introduces analytics hierarchy process. Section 4 analyses the findings and section 5 concludes.

2 A Review on i-CSR

Corporate social responsibility initiatives are increasingly becoming more important as these CSR activities give positive impact not only to the intended groups in the society but to the companies themselves and their employees. There is a positive significant relationship between disclosure of CSR activities and firms' performances [3]. Customers, consumers, employees associations and the society at large are putting pressure on businesses to practice and disclose CSR activities and policies and to implement ethical business ethics. However, CSR activities are more common with companies of developed countries than their counterparts in developing countries [7].

Companies that claim to be shariah compliant should have CSR activities that cater to the concept of *maslahah* (public good) and satisfy the objectives of shariah that are based on the principles revealed in the Qur'an and Sunnah [5]. Islamic corporate social responsibilities (i-CSR) activities should take a more holistic approach than western inspired CSR [3].

[4], [8] and [3] are research works that came out with a conceptual framework and indices for i-CSR. They grouped the CSR activities according to the four key areas, namely, Community, Workplace, Environment and Marketplace, each of which was then categorized into protected elements of *faith, life, intellect, posterity* and *wealth*. The activities or policies identified in [4], however, are different from the ones introduced in the other two papers.[4] accorded the activities in each protected elements into three levels of protection – *essential, complementary* and *embellishment*. The activities of each of the three levels of protection were further segregated into *obligatory* or *recommended*.

[1] ranked the activities proposed by [4] under the Workplace key area or dimension using AHP. The results of the AHP ranking process indicated that activities that are highly important in each sub-area (in brackets) are '*fardhuaintazkirah session*'(essential–obligatory), '*medical benefit for immediate family members*'(complementary–obligatory), '*fringe benefit like entitlement to comprehensive medical benefit or takaful protection*' (complementary–recommended), '*entitlement to special leave to visit the elderly, parents or attending own children's school activities*' (embellishment–obligatory)and '*free biannual medical check-ups*' (embellishment–recommended). Least important activities are various workshops and management seminars, celebration of Islamic festivals and air conditioned musolla.

Under the key area of Marketplace, [2] and [8] produced several themes, one of which grouped the CSR activities and policies which are related to or involved in the development of business products. These themed activities and policies are further separated into four sub areas – *faith, human self, intellect, and wealth*. We used these activities and policies to undertake this research work to rank the importance of CSR initiatives with regard to business product development.

3 Analytics Hierarchy Process

We used an expert group decision-making process known as analytic hierarchy process (AHP) to rank the CSR initiatives listed under *product development* sub theme of the Marketplace key area identified by [8]. In AHP, respondents are required to make pair-wise comparison at a time between the CSR initiatives as AHP produces pair-wise comparison type questionnaires. If there are k different initiatives to compare, then the respondent has to make $k(k-1)/2$ comparisons. With 15 CSR initiatives identified under the *product development* sub theme, 29 pair-wise questions under 4 sub-areas are generated. We ranked the proposed CSR initiatives according to these sub-

areas are *faith, human-self, intellect* and *wealth*. The scale used in AHP is between 1 to 9, with 1 refers to equally important and 9 extremely important.

Suppose activities A, B and C are compared with each other. The steps taken to rank the importance of these activities are given below.

STEP 1.A list of activities to be ranked is given to a subject expert for him to make a pair-wise comparison on the importance of the activities. If activity A is ‘moderately important’ than activity B, then $m_{12} = 3$, and $m_{21} = 1/3$. Furthermore if activity A is ‘extremely important’ than activity C, and activity B is ‘strongly to very strongly important’ than activity C, we have the values of the matrix as in Table 1.

Table 1.Comparison Matrix

<i>activities</i>	A	B	C
A	1	2	8
B	1/2	1	5
C	1/8	1/5	1

STEP 2.We find the total of each column to normalize the matrix.

Table 2.Normalizing the Matrix

Activities	A	B	C
A	1	2	8
B	1/2	1	5
C	1/8	1/5	1
columns total	1.625	3.2	14

STEP 3.To normalize, each value in each row is divided by the columns total.

Table 3.Normalized Matrix

Activities	A	B	C
A	0.615	0.625	0.571
B	0.308	0.625	0.571
C	0.077	0.625	0.571

STEP 4. We take the row average of each activity. The row average is the weightage of importance for each activity. This is given in table 3.4. Activity A is ranked first, B second and lastly activity C.

Table 4. Row Averages

Activities	row averages
A	0.603938
B	0.501374
C	0.424451

STEP 5. Lastly, we determine the consistency index. The index will indicate the consistency of the answers given by the respondent.

4 Findings and Analysis

The results of the analysis in Tables 5 through 8 show the ranking of each CSR initiative for each group. The priority vectors have been normalized and they are shown in column two. They represent the preference weightage of each initiative. The priority vector indicates comparative importance of CSR initiative for each group. Hence, an activity in group *faith* with a higher priority vector than an activity in group *wealth*, for instance, does not indicate the activity in the first group is more important than the activity in the second group. The priority vector is an indication of comparative importance for activities in one particular group only.

For CSR activities under the *faith* sub-area, developing *business products with safety features* leads the list followed by *safety standard in processing the products*. There is a big percentage point gap in the priority vector values between the first and the third initiatives under this sub-area. In the second sub-area, under *human-self*, *disclosing products that meet applicable safety standard* and *producing products that improve health* are deemed more important than receiving *consumers' comment that a product is safe*. In the other two sub-areas, initiatives found to be more important are the *training of employees on developing safety standards for producing products* and *certified information that the firm's product is good*.

In the third sub-area, the initiative found to be most important is the training of employees on developing safety standards for producing products. Lastly, certified information on the firm's good product is preferred than claiming the product is good.

Table 5. Product development – Faith

Initiatives	Priority (%)	Rank
Develop products that have safety features	50.5	1
Safety standard in processing the products	40.9	2
Information on company's products development	8.6	3

Table 6. Product development – Human Self

Initiatives	Priority (%)	Rank
Disclosing products that meet applicable safety standard	21.8	1
Product that improves health	18.7	2
Employees implement product safety standard	17.4	3
The need to improve quality of products produced	15.9	5
Employees implement product quality measures	12.0	5
Employees implement measures on product output timeliness	8.7	6
Consumers' comment that the product is safe	5.5	7

Table 7. Product development – Intellect

Initiatives	Priority (%)	Rank
Train employees on development of safety standards for processes	41.7	1
Research on product safety/quality	34.6	2
R&D towards development of company's product	23.7	3

Table 8. Product development – Wealth

Initiatives	Priority (%)	Rank
Verifiable information that the quality of the firm's product has increased (ISO 9000)	69.0	1
information on the quality of the firm's product	31.0	2

5 Conclusion

Corporate social responsibility (CSR) initiatives are becoming more popular as companies realize the positive impact the CSR activities have on the goodwill of the companies. For shariah compliant companies the CSR activities must cater to the concept of *maslahah* (public good or interest) and satisfy the requirements of the objectives of shariah.

This research work is an extension of the work done by [8] and complements the work of [1] whereby we rank the importance of CSR activities and policies implemented by companies when developing their business products. We ranked the CSR activities using an expert group decision making process known as analytic hierarchy process (AHP). The purpose of the ranking is to build an index where it will serve as a reference point for Shariah compliant companies to prioritize the CSR initiatives. By following this reference point, companies would be able to decide which initiative is of more important than the others. Since the ranked initiative comes with priority vectors which indicate the weightage given to the importance of each initiative in a group, the society would be able to judge and rank an organization's CSR based on those initiatives.

The results of the analysis showed that activities and policies that are deemed as important are '*developing products that have safety features*', '*disclosing products that meet safety standards*', and '*training employees in developing safety standards for processes*'.

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