



The Impact of Social Media on Customer Relationship Capabilities by using Multi-Criteria DEMATEL Method

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Abstract

This study aimed at identifying the causal relationship between social media marketing and customer relationship capabilities. This is applied research in terms of objective and a descriptive study in terms of methodology. The multi-criteria DEMATEL method was used for data collecting. The statistical population comprised experts working in Kalleh Company of Mazandaran, Iran. Statistical society and samples were chosen using the snowball technique (n=9). Because of using DEMATEL method, the matrix questionnaire was designed to measure the considered variables. The obtained results introduced response as the causal factors and production and sharing as effect factors and sharing was the most impressible variable.

Keywords: Marketing, Social media, Customer relationship capabilities, DEMATEL method

1- Introduction

Customer Relationship Management (CRM) is a customer-centered approach to keep a positive relationship with the customer, to enhance customer loyalty, and to expand the value of the customer lifecycle. The key factors for the success or failure of companies depend on the perception of customers' needs and providing services that create value for customers. Electronic Customer Relationship Management (E-CRM) emerged when organizations began using web browsers, internet, and other electronic communications such as E-mail, ePOS, call centers, and direct sales for CRM. The substantial development of social media received considerable attention from the organization. In this regard, CRM is a modern concept in the customer relationship approach, which employs the potential of social media to attract more customers and keep them. This is a

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new strategy and approach to combine online customer relationships, social media, and traditional CRM. Social media-based CRM is a business strategy that is supported by technology to create an interaction with customers within a collaborative atmosphere to achieve mutual advantages. Blogs, services, wikis, podcasts, social media, and content sharing tools are employed in this field. Different audiences are considered when advertising via social media, which contributes to success. It is also necessary to identify internal and external groups (internal and external marketing) in the marketing plan. Accordingly, this study was conducted to identify the causal relationship between social media and CRM capabilities in Kalleh Company. This study is organized as follows: the first section of the study describes social media marketing and eCRM then research methodology and findings are proposed and finally, the conclusion part is proposed.

2- Theoretical Literature

2-1- Social Media Marketing

Social media marketing is one of the modern marketing methods employed by companies. Social media have become a powerful body that forms business aspects by improving word-of-mouth marketing and playing role in decisions made by customers. Marketers should learn all of the relevant strategies to do marketing activities via social media. Although the advertisement is a reliable information source, social media can perform better than advertisements. Because social media share a large volume of messages through these networks, marketers may have lower knowledge of and control over the shared messages. Many companies have designed specific webs for themselves within virtual social media. Although many scholars believe in the value of word-of-mouth advertisement, yet the real value of social media is unknown. Social media is a structure composed of nodes (individual or organizational) that are interconnected with one or more specific connections.

2-2- E-CRM

The famous marketing author, Philip Kotler defines E-CRM as a part of e-business describing the use of electronic tools and platforms to direct affairs and enabling companies to serve their customers more rapidly and precisely at an extensive time and location range with lower cost. E-CRM provides customization of products and services. Bull (2003) considers CRM technological orientation as one of the significant indicators of marketing if CRM is considered as an effective communication management-based



business process (Motameni, Jafari & Mojarad, 2015). Similarly, Chen and Popovich (2003) described CRM as an integrated perspective including three components of individuals, process, and technology. In other words, the main objective of CRM is to perceive the values and behavior of customers to improve customer loyalty and profitability. Accordingly, companies should replace traditional CRM with more effort for up-sale and rebuilding the company-customers relationship (Mirfakhrodinni et al., 2014).

3- Methodology

This is applied research in terms of objective and a descriptive study in terms of method. The statistical population comprised experts working in Kalleh company of Mazandaran, Iran. Statistical society and samples were chosen using the snowball technique (n=9). According to DEMAEL technique, experts were asked to score items based on a 4-point scale to achieve the initial matrix based on geometric averaging. At the next step, normalization is done then the transposed matrix is inverted and multiplied. Then, causal relationships are measured based on the threshold value. Finally, r and j values are calculated to achieve the most effective and impressive factors based on the opinion of experts collected from the DEMATEL Method.

In the DEMATEL method, the assessed questionnaires are scored based on the 0-4 range then experts are asked to give scores to factors (lowest difference=0 and highest difference=4) based on the survey method.

4- Findings

Table 1. The geometric average of CRM Questionnaire

	Production	Sharing	Response
Production	0	3	1
Sharing	1	0	3
Response	4	3	0

The geometric average was calculated accord to the score given by experts (see Table 1). At the next step, the M value is calculated (see Table 2).

Table 2. Matrix M

	Production	Sharing	Response
Production	0	0.428571	0.142857
Sharing	0.142857	0	0.428571
Response	0.571429	0.428571	0



To calculate M value, the sum of rows was calculated using Table 1 and then the maximum value was determined, each element was divided by the maximum value and the obtained value was identified as reference matrix (M).

Table 3. Matrix M

M-I	Production	Sharing	Response
Production	1	-0.42857	-0.14286
Sharing	-0.14286	1	-0.42857
Response	-0.57143	-0.42857	1

The obtained value in Table 2 is subtracted from the I matrix that the results are shown in Table 4.

Table 4. Matrix (I-M)⁻¹

(I-M) ⁻¹	Production	Sharing	Response	R (sum Line)
Production	1.458333	0.857	0.583333	2.91666667
Sharing	0.692708	1.640625	0.802083	3.13541667
Response	1.130208	1.203125	1.677083	4.01041667
J (sum Column)	3.28125	3.71857	3.0625	

At this step, the values obtained from Table 4 are raised to the power of -1 identified as transposed matrix to make it positive.

Table 5. General relationships Matrix

M(I-M) ⁻¹	Production	Sharing	Response
Production	0.458333	0.857	0.583333
Sharing	0.692708	0.640625	0.802083
Response	1.130208	1.203125	1.677083

At this step, values of Table 5 are multiplied by values in Table 4 and the calculated value indicates general relationships between variables. Then, causal-effect relationships between customer relationship capabilities are determined based on the calculated threshold value that is measured based on the mean value of Table 6. The threshold value was calculated to equal to 0.78742.

Table 6. Causal-Effect relationships between variables

T	Production	Sharing	Response
Production	0	1	0
Sharing	0	0	1
Response	1	1	0



In this part, values are calculated based on 0 and 1; to this end, if values of Table 6 are greater than the threshold value of 0.78742 then 1 is placed; otherwise, 0 is placed. Table 6 indicates the results of calculating the following method. The relationships between variables are depicted in Figure 1 based on the threshold value.

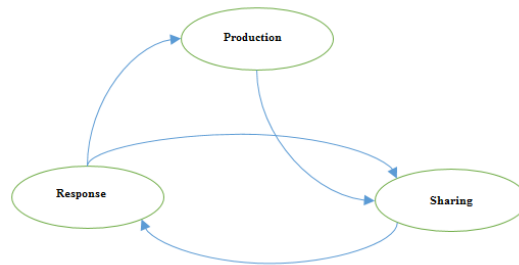


Fig 1. Causal-Effect relationships between variables of CRM capabilities

The relationship path between variables of customer relationship capabilities is shown in the table and figure above.

Table 7. Superiority and relationship vectors

	Production	Sharing	Response
Superiority vector R+J	6.197917	6.854167	7.072917
Relationship vector R-J	-0.36458	-0.58333	0.947917

R and J values are calculated based on Table 7; the sum of each row in Table 7 is R and the sum of the column is J.

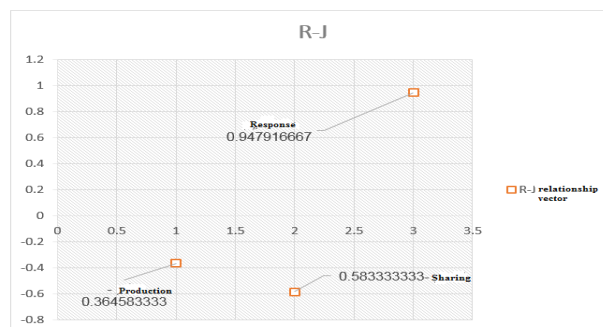


Fig 2. Impact diagram

R-J operation is done to find the impact of each factor on the other ones; if the value is positive, the variable is influencing and the factor is causal and if the value is negative



then the variable is impressible. Accordingly, the response was the causal factor and sharing and production were effect factors, sharing was the most impressible variable.

5- Conclusion

The objective of this research was to identify the cause-effect relationship between social media marketing and customer relationship capabilities in Kalleh company. A modern approach was designed in this study based on the traditional marketing and distribution methods used in the diary-meat industry. Changing expectations and demands of customers may cause many challenges in supply chain development and adoption of new technologies making companies use such technologies to facilitate customer-company interactions. Moreover, the concept of effective customer relationship management depends on the technological supply chain. The obtained results introduced response as the causal factor and sharing and production as effect factors; sharing was the most impressible variable.

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