

MATRIX FOR ANALYSIS OF ELEMENTS OF CORPORATE IMAGE IN THE CONSTRUCTION SECTOR IN BOSNIA AND HERZEGOVINA

Senija Šehanović PhD, Assistant Professor
Construction Company „ARCON – in“ d.o.o. Zenica,
Faculty of Philosophy, University of Zenica
Zenica, BiH

ABSTRACT

In the crisis caused by the COVID-19 pandemic, it is imperative for all, and especially small and medium-sized enterprises (SMEs) with generally insufficient internal resources, to use all of them in overcoming the crisis. As SMEs dominate the Bosnian-Herzegovinian (BH) construction sector, they should put to use their corporate image as one of their resources. In order to unlock the potential of their corporate image, it is necessary that its quality guarantees improvement in business in all conditions, including crises. To achieve this quality, there is a need for research of elements of construction companies' image. The matrix of image elements given in this paper, which can be a useful research tool, contains all elements of image tailored for the purpose of further analysis. The presented matrix is a result of research carried out in the group of investors, the most important stakeholder in BH construction sector.

Key words: corporate image, elements of image, matrix of image elements, construction companies

1. INTRODUCTION

A positive and stable corporate image is one of factors of business excellence of each company. Such image not only guarantees stability and development of business in all business circumstances, but is also capable of overcoming business crises. In the current, extremely deep crisis caused by the COVID-19 pandemic which has also significantly endangered the construction sector in Bosnia and Herzegovina (BiH), it is imperative for all construction companies to use all available resources in overcoming it. Unfortunately, construction sector generally employs more traditional business practices, which provide limited flexibility in times of sudden changes, when new ways of working have to be implemented [1]. Bosnian-Herzegovinian (BH) construction sector is no exception – corporate image is not recognised as a potent business resource. Image, as a resource also available in the current situation, should be put to use especially by SMEs that generally do not have sufficient internal reserves (sufficient stock of materials and equipment, financial stock, enough professional staff, etc.) needed to overcome the crisis. Therefore, there is no doubt that SMEs especially need to use their corporate image as a resource capable to improve business performance.

In order to unlock the full potential of corporate image, its quality, i.e. positivity, distinctiveness, business efficiency and stability, should guarantee the sustainability of business under all, and even crisis conditions. In order to achieve such a quality of the construction companies' image, it is necessary to research and analyze its essential structural elements. In further consideration, a part

of results of an empirical research of construction companies' image and its elements determined as the most important by investors (the most important stakeholder in BH construction sector), will be presented. Based on the research results, a matrix for researching the elements of corporate image will be given. This matrix can be a useful research tool for research of corporate image of construction companies.

2. MATRIX OF ELEMENTS OF CORPORATE IMAGE OF CONSTRUCTION COMPANIES IN BOSNIA AND HERZEGOVINA - PREVIOUS CONSIDERATIONS

Construction companies' corporate image is a mosaic of a number of structural elements classified into two categories [2, 3]:

1. *Real elements of corporate image* – According to the research results, the most important of these elements are: quality of performed construction works, compliance with agreed construction deadlines, pricing policy of the company (acceptability of construction prices and adequacy to the perception of utility), company's professional experience, level of technical equipment and innovation in technology, structure and professional skills of employees, behavior towards business partners and protection of their interests, company's social responsibility and ethics. The term *real elements* is used as an indicator that through this group of elements the real identity of a construction company is reflected. They include the characteristics of the company's business activities within the registered activity, manifestations of its organizational structure, vision and mission. These elements are extremely important for corporate image. If, for example, the quality of works does not correspond to the perception of utility by investors, regardless of the way of communication, the corporate image created in group of investors will not be positive. On the other hand, no matter how good the company's services are, if they are not communicated properly, the positive effects on business activities will be absent. For this reason, in addition to the *real elements* of the corporate image, it is necessary to manage its *communication elements*.

2. *Communication elements* of corporate image – elements of communication and visual identity include activities and characteristics of corporate communication by which a construction company communicates with its internal and external stakeholders [4, 5]. Besides corporate culture, the most important communication elements of corporate image in the field of construction, according to the research, are: the way of conducting PR, marketing and other communication activities, managerial communication, sponsorship and donations, crisis communication, lobbying and visual presentation of a company (business correspondence and style, graphic presentation of the company: business letters and business memos, logo, emblems, logo colors, interior and exterior of the premises, name and slogan of the company).

A quality instrument for researching construction companies' image should include all of the listed *real and communication elements* of the corporate image. All of them are found to be important by the conducted survey. The most important elements of corporate image are classified into a matrix of corporate image elements (adjusted to the form applied by [6]). The matrix further serves as a research tool for assessment of significance and evaluation of each of the elements of construction companies' image by the selected most important stakeholder. The image research matrix in the construction sector should contain at the minimum the aforementioned elements, but in fact each company should, according to its own business reality, add elements to the matrix that determine the company's image and which are specific to distinct territories and markets. It means that each company needs to create its own matrix. Table 1 provides a matrix for researching construction companies' corporate image elements, and is a solid tool for researching image in the field of construction. This matrix provides the identified elements of an ideal image of construction companies in BiH. Table 1 also shows the questions and the scale used to assess individual elements

of image by respondents from the selected group (investors).

Table 1: Matrix for researching construction companies' corporate image elements

Please rate each of the listed elements of image of construction companies with a mark from 1 to 7 (1 is the worst rating and 7 is the best).			
<i>Which of the following elements most influences your assessment of the individual construction company's image? (One answer, Table n, denote by x): Which of the following elements does not affect your assessment of the image of an individual construction company at all? (One answer, Table n, denote by x).</i>			
Structural elements of corporate image	Rating of individual elements of image (on a scale 1 to 7)	The most important element of image	An irrelevant element of the image
The way of conducting PR and the other communications activities by the company (choice of activities, choice of appropriate communication channels, management of all aspects of message, alignment of the corporate message to the goals and each of individual groups of public; e.g. TV and newspaper advertisements, press releases, events, etc.)	1 2 3 4 5 6 7		
Image of managers (negotiating style, manager's skills, knowledge, competencies and communication style)	1 2 3 4 5 6 7		
Visual, graphic presentation of the company – logo, printed materials etc.	1 2 3 4 5 6 7		
Business correspondence	1 2 3 4 5 6 7		
Lobbying	1 2 3 4 5 6 7		
Compliance with relevant laws, business ethic and social responsibility	1 2 3 4 5 6 7		
Company's pricing policy (is the price acceptable, transparent and fixed)	1 2 3 4 5 6 7		
The level of quality of works and services	1 2 3 4 5 6 7		
Structure, professional skills and experience of employees	1 2 3 4 5 6 7		
Technical equipment – innovation in technologies	1 2 3 4 5 6 7		
Professional experience of the company – References	1 2 3 4 5 6 7		
Compliance with agreed construction deadlines	1 2 3 4 5 6 7		
Warranty period, pre-sale and after-sales service and care for investors	1 2 3 4 5 6 7		
Corporate Culture – Taking care of own employees and Internal communication	1 2 3 4 5 6 7		
Another element such as: _____	1 2 3 4 5 6 7		

To analyse the results of research on the corporate image and its structural elements, it is useful to make tables such as the following (Table 2):

Table 2: Matrix of construction companies' image elements among the most important stakeholders (in this paper – investors)

Elements of Corporate Image	AM (Arithmetic Mean)- Average Grade of Image Element	SD (Standard Deviation)	The most important element (% of respondents who chose this element as the most important)	Irrelevant element (% of respondents who rated this element as irrelevant)
Company's communication activities	N	N	n%	n%
Quality and image of managers, their negotiating skills, knowledge, competencies and communication style	N	N	n%	n%
Graphic presentation of the company	N	N	n%	n%
Business correspondence	N	N	n%	n%
Lobbying	N	N	n%	n%
Compliance with relevant laws, business ethic and Social responsibility	N	N	n%	n%
Price of works and services (competitive, transparent and fixed price that is not subject to later changes)	N	N	n%	n%
Quality of works and services	N	N	n%	n%
Professional skills and experience of employees	N	N	n%	n%
Technical equipment – Innovation in Technologies	N	N	n%	n%
Professional experience of Company – References	N	N	n%	n%
Compliance with Agreed Construction Deadlines	N	N	n%	n%

Warranty period, pre-sale and after-sales service and care for investors	N	N	n%	n%
Taking care of own employees	N	N	n%	n%

Table 2 contains arithmetic mean and standard deviation as well as the percentages of respondents who consider one individual image element as irrelevant or the most important for the creation of overall corporate image. Corporate image elements can be also presented by various graphical diagrams such as a spider graphic, with the aim of easier monitoring of research results. The chart analysis assesses the state of the company's image elements and the need to take corrective interventions. The causes of poor grades are considered, as well as priorities for urgent interventions needed to bring the chosen element to a state of excellence (up to grade 7). As different business conditions often present limiting factors to companies to intervening on all elements of the image that have been graded as bad, prioritization is very important in image analyzes.

3. RESEARCH METHODOLOGY

A market survey on corporate image and its impact on construction companies' excellence in business was conducted in BiH during 2017 by the author of this paper. The survey was conducted in the groups of active construction companies in BiH, as well as their investors. Quantitative survey in the latter group, results of which are the most relevant in this paper, was conducted using a questionnaire technique (CATI telephone research). Due to a lack of databases with integrated, country-wide level of information about the companies in the construction sector, population size had to be estimated by cross-sectional pairing of different sources, in particular the Agency for Statistics of Bosnia and Herzegovina [7,8], Institute for Statistics of the Federation of Bosnia and Herzegovina, Republika Srpska Institute of Statistics and chambers of economy in BiH. Out of the population of cca. 3000 active companies in the construction sector in BiH in 2016, 1.5% were surveyed in the sample that is deemed representative based on established statistical practice. Investors of the construction companies in the sample were surveyed separately, allowing for the same conditioning variables to be used in inferring the behaviour and attitudes on the population level.

The size of the sample determined the use of appropriate statistics (in particular, t-statistics) for confidence interval estimation. Due to a low number of observations in multiple contingency table entries, chi-squared analysis was deemed inappropriate. As such, other statistical tests relevant for the structure of collected data were carried out to allow for inference developed in the discussion section, most importantly the Fisher's Exact Test and the Kruskal-Wallis test.

4. RESULTS AND DISCUSSION OF RESEARCH IN THE CONSTRUCTION SECTOR IN BOSNIA AND HERZEGOVINA

The presented results of the survey provide an overview of the most important *real and communication elements* of the corporate image of BH construction companies. All elements were identified through the survey conducted in the group of investors as the most influential stakeholder in the sector. These results showed that, regarding the corporate image of BH construction companies, investors have in mind the following *real elements* of their image: quality of works and services; compliance with agreed deadlines and other elements of the contract; pricing policy of the company (competitive, transparent and fixed price that is not subject to any changes); technical equipment and innovation in technologies, professional skills and experience of managers and other employees; the company's attitude towards preserving the interests of business partners; business flexibility; employee care and employee satisfaction; business experience of the company

and its social responsibility. Due to the confirmed importance of the mentioned image elements, construction companies in BiH should continuously manage them. The quality of the *real image* elements should also be supported by the quality *communication elements* of the corporate image. The results of the survey, in the selected category of respondents on the BH investment market showed that the most important *communication elements* of corporate image of construction companies are those shown in Table 3 below. The arithmetic mean and standard deviations of the ratings given by investors for each individual element of the corporate image of BH construction companies are also given.

Table 3: Descriptive statistics - significance and assessment of image elements of BH construction companies among investors

Descriptive statistics - significance and assessment of image elements of BH construction companies among the most important stakeholders - investors

Elements of corporate image	AM	SD	The most important image element	Irrelevant element
Company's communication activities	3.21	1.32	13%	4.5%
Quality and image of the managers, their negotiating skills, knowledge, competencies and communication style	3.79	1.56	8.7%	4.5%
Graphic presentation of the company	3.53	1.30	0%	25%
Business correspondence	3.56	1.30	2.2%	4.5%
Lobbying	4.17	1.49	2.2%	41%
Compliance with relevant laws, business ethic and Social responsibility	3.40	1.68	17.4%	0%
Price of works and services (competitive, transparent and fixed price that is not subject to later changes)	3.79	1.50	0%	6.8%
Quality of works and services	3.98	1.67	45.6%	2.3%
Professional skills and experience of employees	3.96	1.57	2.2%	0%
Technical equipment – Innovation in Technologies	3.98	1.66	2.2%	6.8%
Professional experience of Company – References	4.23	1.37	2.2%	0%
Compliance with Agreed Construction Deadlines	3.54	1.75	2.2%	4.5%
Warranty period, pre-sale and after-sales service and care for investors	3.42	1.58	2.2%	0%
Taking care of own employees	3.59	1.64	0%	0%



Figure 1. Assessment of BH construction companies' corporate image elements among the most important stakeholders - investors

Figure 1 (spider chart) shows graphically the results listed in previous tables. The values in the chart are averages for each element of corporate image of BH construction companies given in Table 3. Graphical representation of results provides for an easier way to analyse data arising from the research.

Ratings of individual corporate image elements range from 3.21 to 4.23, on a scale from 1 to 7. The highest average scores are given to "professional experience" (AM = 4.23, SD = 1.37) and "lobbying" (AM = 4.17, SD = 1.49). Corporate communication activities received the lowest average score of all image elements (3.21 on a scale of 1 to 7, SD 1.32). The below-average grade on the selected scale proved that the communication activities of BH construction companies do not contain elements of excellence. This situation significantly affects and determines their neutral or negative image, image without potential to improve their business. Other *real* and *communication elements* of corporate image also received an around-average rating from investors (slightly above 3.50 on a scale of 1 to 7), i.e. they obviously do not contain elements of excellence. It is easy to conclude that BH construction companies need to start with a development of new business strategies, including corporate communication strategies that would also envisage corrective actions to improve the poorly rated elements of their image.

5. CONCLUSION

The crisis triggered by the COVID-19 pandemic caused a major disruption in business activities of most Bosnian-Herzegovinian companies, including those in the construction sector. This is the result of numerous disturbances in the market in the segment of procurement of materials and equipment, transport, provision of sufficient skilled labour force, lack of financial resources etc. In such circumstances, it is imperative for construction companies to use all resources in overcoming the crisis, not least the corporate image as an undoubtedly potent one. This is especially relevant for small and medium-sized enterprises (SMEs) with generally insufficient internal resources for a long-running crisis such as the COVID-19 pandemic. However, in order to unlock the potential of their corporate image and put it into the function of overcoming the crisis, the image needs to be of high quality and needs to be strategically managed. This presumes a need for research and analysis of essential elements of construction companies' image. The research needs to be carried out first among the most important stakeholders. Since it contains all essential elements of corporate image tailored for the purpose of further analysis, the matrix of elements of corporate image given in this paper is a solid and useful research tool in the construction sector. The use of the proposed research tool can be a good basis for planning intervention actions on repositioning the corporate image of BH construction companies.

6. REFERENCES

- [1] Yembi Renault, B, Ngala Agumba, J.: The Issue of Communication in the Construction Industry: A case of South Africa, Joint International Conference (JIC) Akure, Nigeria, ISBN 9781898523000, 2016, pp. 1729-1738
- [2] Sehanovic, S.: The Impact of the Corporate Communication on the Corporate Image of Construction Companies in Bosnia and Herzegovina, Doctoral Thesis, University of Tuzla, Faculty of Humanities and Social Sciences, 2018
- [3] Kennedy, S.H.: Nurturing institutional image, European Journal of Marketing, Vol 11, No 3, pp. 120-164. 1977.
- [4] Kurtic, N.: Odnosi s javnostima, UNIVERSITY PRESS, Sarajevo, 2016, pp. 459
- [5] Van Reel, C.B.M, Fombrun, C.J.: Essentials of Corporate Communication, Routledge, New York, 2007, pp. 22
- [6] Cornelissen, J.: Corporate Communications Theory and Practice, SAGE Publications, London, 2004
- [7] Agencija za statistiku BiH, Saopćenje: poslovne statistike; Indeksi proizvodnje u građevinarstvu u BiH, prvi kvartal 2017, Sarajevo, Agencija za statistiku BiH, 2017
- [8] Agencija za statistiku BiH, Građevinski radovi u 2016, Sarajevo, Agencija za statistiku BiH, 2017