

IMPACT OF CORPORATE CULTURE PUBLICIZED ON THE INTERNET ON THE ORGANIZATIONAL PERFORMANCE OF INSURANCE COMPANIES IN BULGARIA

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Abstract. The corporate culture of business organizations publicized on the Internet has a positive influence on their image, but its impact on organizational performance and results has not been indisputable. In this regard, the purpose of this paper is to establish the correlation between the degree of development of the corporate culture of insurance companies in Bulgaria publicized on the Internet and their organizational performance, measured by the return on equity. The results obtained on the nature of this correlation in insurance companies show that it is rather weak, with the number of all publicized elements having a stronger positive influence than the number of only the primary ones.

Keywords: publicized corporate culture; insurance companies; primary elements; secondary elements

JEL: G22, M14

1. Introduction

The culture existing in a business organization is a factor with a significant impact on its market performance, economic results and efficiency. This has been confirmed by numerous studies in recent years carried out in companies engaged in various sectors of the economy, non-governmental organizations, healthcare providers, secondary and higher schools (Awino, et al., 2018; Munir et al., 2023; Idris et al., 2022; Desselle, Zgarrick & Ramachandran, 2022; Sareen & Pandey, 2022; Zen, et al., 2023, Idriz & Geshkov, 2023, etc.). Recently, however, various researchers have focused their studies on the official side of culture and its impact on organizational success. An important element of the official corporate culture is the culture publicized on the Internet, which enables companies to acquaint their partners and stakeholders with the main priorities and goals of the business. It can be said that regarding the correlation between the degree of publicization of the culture online and company performance, there is a lack of sufficient studies in

the literature to confirm a definitive positive influence. In this respect, the studies of Sipayung, et al. (2019), Minkov & Ivanov (2023), Pamungkas et al. (2024), Catindig & Matriano (2024) ought to be mentioned, which, however, do not provide a clear answer to the question of whether and to what extent the publicized culture influences organizational performance.

For companies from the Bulgarian insurance sector, as providers of financial services in a highly competitive market, it is undoubtedly of great importance to create a unique image in the eyes of customers and other market participants. At the same time, it is debatable whether this affects the market performance and success of these organizations. In view of this, the purpose of this paper is to establish the correlation between the degree of development of the corporate culture of insurance companies in Bulgaria publicized on the Internet and their organizational performance, measured by the return on equity.

2. Literature review

Corporate culture publicized on the Internet is a construct with an important role in the communication policy of organizations. Researchers agree that it is part of the official organizational culture, which is presented in official documents of the companies, communicated in the virtual space through their official websites, and is the result of purposeful construction by their top management.

The publicized culture of companies is expressed through numerous cultural elements, presented in writing, through which certain messages are sent to customers and other internal and external stakeholders. It is precisely with regard to the elements that make up this culture that the greatest differences between individual researchers are observed. A large group of authors (Sipayung, Fomunyam, Oznacar & Celik, Carvalho, Lee, Pamungkas, T. et al.) hold the view that the primary elements of publicized culture include corporate mission, vision and values. This point of view is not without logic, as these are the three key components of every company's strategic direction and determine its long-term goals and priorities. At the same time, it should be noted that companies publish many other documents online, each outlining certain characteristic features of the organizational profile – motto, credo, company history, code of ethics, slogan, manifesto, etc. A proponent of this view is K. Dimitrov, who in two large-scale studies of a significant number of companies, members of certain Bulgarian employers' organizations (Dimitrov, Ivanov & Geshkov, 2018; Dimitrov, Dimitrov & Slavova, 2024), derives a total of 22 elements of the publicized culture, including such exotic and very rare elements as an organizational mantra, a goal-orientation toward great and deep change, and a goal toward a giant leap. However, in this author's research, there is no ranking of the individual elements by degree of importance and contribution to the companies' communication policy.

Based on the literature review, we came to the conclusion that the structure of the publicized corporate culture consists of elements of lower and higher rank. Similarly to most researchers, we believe that three proclamations are paramount for its construction – those concerning the mission, vision and values/principles of the organization. In our opinion, these elements can be defined as being of primary importance for the culture, as they constitute the foundation around which other documents of lesser importance are built up. The scope of lower-ranking elements includes those that are publicized relatively frequently on company websites, but whose role in the communication policy is mainly to add value to the messages of the primary documents. For the purposes of the present study, we assume that such a role is played by eight elements – business credo, motto, history, corporate social responsibility and code of ethics. They can be defined as secondary elements in the portfolio of publicized culture.

Recent studies of the relationship between elements of official culture publicized on the Internet and various aspects of organizational performance in organizations of diverse nature and lines of business show that the impact is rather positive (Table 1).

Table 1. Findings from studies on the relationship between publicized company culture and organizational performance

Author	Results
Jonyo, Ouma & Mosoti (2018)	The impact of mission and vision on the organizational performance of 17 private universities in Kenya is studied. A significant positive impact of changes in the mission and vision on the organizational performance of educational institutions is established.
Dermol & Šrca (2018)	The paper examines the influence of the publicized missions and values of a sample of Slovenian companies on their organizational performance. The results show a positive correlation between the existence of publicized corporate mission and organizational values and their communication within the company, on the one hand, and some of the non-financial aspects of company performance, on the other.
Sipayung et al. (2019)	The relationship between the corporate image of consumer goods enterprises and their mission statements and the manner of their presentation is analyzed. The results show that a good formulation of the mission has a strong positive relationship with the company's image and organizational performance.

Aldhaferi, Ameen & Isaac (2020)	Explores the impact of the formulation of mission, vision and goals on staff training and development within the UAE public sector. The results of the study render the conclusion that there is a significant and positive impact on organizational performance.
Pamungkas et al. (2024)	The purpose of the study is to demonstrate the effect of the vision and mission on the work of Hospital in Asia. The results show that there is a relationship between organizational culture, the vision and mission and the level of effectiveness and efficiency of the hospital facility.
Catindig & Matriano (2024)	This study outlines a strong positive impact of secondary school teachers' perceptions of the vision, mission, and goals on their commitment to the respective organizations. Alignment between personal values and organizational values has been found to play a critical role in strengthening commitment and fostering people's sense of belonging.

3. Methodological tools and research results

Classical economic theory puts operating profit in the foreground when analysing the results and performance of business organizations. The development of economic relations, in particular capital markets and the emergence of large joint-stock companies, brought out profitability ratios as key indicators. By its very nature, profitability is a category whose purpose is to present the efficiency of the enterprise's business through relative numbers. According to Kostova (2010), "profitability ratios are quantitative characteristics of the efficiency of revenues and costs, assets, liabilities and equity". The search for relationships between these categories, which is above all characteristic of financial and accounting analyses, and social and managerial elements in business organizations, is increasingly observed in various publications (Minkov & Ivanov, 2023). It is now a common practice to publish information on the aforementioned aspects of the strategic management of companies when preparing reports on their activity.

There is a certain variety of profitability indicators (Petrov et al., 2006). Given that the publicized corporate culture is relevant to all stakeholders in a company, we believe it is appropriate to look for a relationship between the degree of its development, measured by the number of publicized elements online (primary and in total) and the performance of insurance companies, measured by the return on equity. In this regard, it can be pointed out that the return on equity is measured by the ratio of the net financial result and the amount of equity (Kostova, 2010):

$$R_{prof(Eq)} = \frac{NPr}{Eq} \times 100, (\%) \quad R_{prof(Eq)} = \frac{NPr}{Eq} \times 100, (\%)$$

Formula 1. Net return on equity ratio

Where:

$R_{\text{prof}(Eq)}$ – return on equity ratio;

NPr - net profit (loss) of the company;

Eq – net sales revenue.

The calculation of the return on equity of insurance companies, members of the Association of Bulgarian Insurers, was carried out on the basis of the formula presented above, using data from the annual financial reports and activity reports on the companies' websites. The indicators for the selected companies were determined based on data for 2023, and a return on equity ratio was calculated for each of them (table 2).

Table 2. Return on equity of insurance companies in Bulgaria for 2023

Insurance company	Eq	Pr(net)	Rprof(Eq)
Bulgaria Insurance - Sofia	9091	518	5.70%
UNIQA – Sofia	29386	5049	17.18%
OZK-Insurance – Sofia	30973	5400	17.43%
Colonnade Insurance S.A. – Bulgaria branch – Sofia	116094	8089	6.97%
Asset Ins – Sofia	7823	678	8.67%
Euroins – Sofia	70642	9916	14.04%
Groupama Zastrahovane – Sofia	36535	5679	15.54%
DZI – General Insurance – Sofia	194173	78357	40.35%
Armeec – Sofia	117526	34423	29.29%
Generali Insurance – Sofia	141009	15117	10.72%
BUL INS – Sofia	64052	268	0.42%
BAEZ – Bulgarian Export Insurance – Sofia	28906	808	2.80%
Lev Ins – Sofia	51800	4588	8.86%
Allianz Bulgaria – Sofia	7500	2939	39.19%
Bulstrad Vienna Insurance Group – Sofia	194368	38534	19.83%
Saglasie – Sofia	9037	1077	11.92%
CCB Life – Sofia	9412	159	1.69%
Euroins Life – Sofia	11498	240	2.09%
Grawe Bulgaria Life Insurance – Sofia	59203	10333	17.45%
Bulstrad Life Vienna Insurance Group – Sofia	56367	12466	22.12%
MetLife Europe d.a.c. – Bulgaria branch	1304000	166000	12.73%

The relationship between the publicized number of corporate culture elements (primary and in total) and the return on equity ratios of the studied companies should be defined as causal. Referring to the science of statistics, this means that such relationship “reflects the interaction between processes, where one of them predetermines the condition and behaviour of others” (Radilov, Hadzhiev & Zhekova, 2010). Given the existence of two variables (dependent and independent), for which matrix data are available, the degree of their dependence can be characterized by the classic Bravais-Pearson linear correlation coefficient.

$$r = \frac{\sum_{i=1}^n (x_i - \bar{x})(y_i - \bar{y})}{(n-1)S_x S_y} = \frac{\sum_{i=1}^n (x_i - \bar{x})(y_i - \bar{y})}{(n-1)S_x S_y},$$

Formula 2. Bravais – Pearson correlation coefficient

This correlation belongs to the group of parametric methods, which means that it should only be applied to parametric series with a normal distribution. This is precisely what necessitates determining the type of data series and distribution using the Kolmogorov-Smirnov Sample Test.

The statistical significance of the simple linear correlation coefficient is determined by the classical method of statistical hypothesis testing. The two hypotheses are of the following type (Radilov, Hadzhiev & Zhekova, 2010):

$H_0 : \rho = 0$ (assumption of zero effect of the factor on the result)

$H_1 : \rho \neq 0$ (the alternative hypothesis is opposite to the null hypothesis)

Empirical characterization of null hypothesis testing

$$t = \frac{r}{s_r} = r \sqrt{\frac{n-2}{1-r^2}} = \frac{r}{s_r} = r \sqrt{\frac{n-2}{1-r^2}},$$

Formula 3. Empirical characterization of statistical hypotheses testing.

The decision to accept or reject the null hypothesis is based on the comparison between the obtained empirical and theoretical characterization from the t-distribution table at a chosen level of significance and degree of freedom $n - 2$.

In the present study on the existence of a correlation between the number of elements (primary and in total) of the corporate culture publicized on the Internet and the return on equity of insurance companies in Bulgaria, a risk of error of the first kind $\alpha=0.05$ is assumed, whereby, in our opinion, the risks that may arise from distortion of the results caused by the small number of respondents and the way the sample was formed are fully reflected.

The results of the Kolmogorov-Smirnov Sample Test (Table 3) and the assumed risk of error of the first kind warrant the conclusion that the distribution is normal.

Table 3. Results of the Kolmogorov-Smirnov test for normal distribution of the statistical series

		Total elements	Primary elements	Return on equity
N		21	21	21
Normal Parameters ^{a,b}	Mean	3,2857	1,6190	,1452
	Std. Deviation	1,58565	1,16087	,11030
Most Extreme Differences	Absolute	,220	,200	,173
	Positive	,220	,157	,173
	Negative	-,146	-,200	-,094
Kolmogorov-Smirnov Z		1,007	,917	,793
Asymp. Sig. (2-tailed)		,262	,370	,555

- a. Test distribution is Normal.
- b. Calculated from data.

Based on the obtained results regarding the type of data distribution in the statistical series, we may proceed to calculations and assumptions for the hypotheses as follows:

H_0 – there is no statistically significant correlation between the number of corporate culture elements publicized on the Internet (primary and in total) and return on equity.

H_1 – there is a statistically significant correlation between the number of corporate culture elements publicized on the Internet (primary and in total) and return on equity.

Table 4. Correlation between the number of the total (primary and secondary) publicized elements of corporate culture and the return on equity in insurance companies in Bulgaria

		Value	Asymp. Std. Error ^a	Approx. T ^b	Approx. Sig.
Interval by Interval	Pearson's R	,171	,183	,757	,458 ^c
Ordinal by Ordinal	Spearman Correlation	,283	,196	1,286	,214 ^c
N of Valid Cases		21			

- a. Not assuming the null hypothesis.
- b. Using the asymptotic standard error assuming the null hypothesis.
- c. Based on normal approximation.

The results of the calculations of the correlation coefficients show that the null hypothesis cannot be accepted, and the results of the Pearson and Spearman coefficients presented in Table 4 are in the range of a weak to moderately strong correlation between the factor and dependent variables, respectively. This shows that there is, albeit a weak, correlation between the organizational performance of insurance companies and their desire to communicate through their websites a greater number of elements of their corporate culture.

Table 5. Correlation between the number of publicized primary elements of corporate culture and the return on equity in insurance companies in Bulgaria

		Value	Asymp. Std. Error ^a	Approx. T ^b	Approx. Sig.
Interval by Interval	Pearson's R	,188	,171	,835	,414 ^c
Ordinal by Ordinal	Spearman Correlation	,210	,209	,936	,361 ^c
N of Valid Cases		21			

- a. Not assuming the null hypothesis.
- b. Using the asymptotic standard error assuming the null hypothesis.
- c. Based on normal approximation.

The correlation analysis data presented in Table 5 show that the correlation is stronger for all publicized elements than for only the primary ones (mission, vision, and values/principles). It is possible that this weaker correlation is also due to the fact that some of the companies included in the study have not publicized primary elements of culture. Nevertheless, the results show unequivocally that the null hypothesis cannot be accepted, i.e. there is a certain correlation, albeit weak.

4. Conclusion

The results of this study confirmed to a certain extent the results of other studies on the positive correlation between the scope of corporate culture publicized on the Internet and the organizational performance of companies. Characteristic of the nature of this correlation in insurance companies in Bulgaria is that it is rather weak, with the number of all publicized elements having a stronger positive influence than the number of only the primary ones. This suggests that the senior management of these companies should focus on building a cultural portfolio encompassing a combination of primary and secondary elements, rather than prioritizing the publicization of only mission, vision and/or values/principles. A communication policy of this kind would make a higher contribution to the organizational performance of insurance companies.

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