

# Cultural differences as a reason for failure of investment projects in the Polish banking sector

ZBIGNIEW KORZEB

Department of Management, Economy and Finance  
Bialystok University of Technology  
45A Wiejska Street, Bialystok 15-351  
POLAND

*Abstract:* The objective of this paper is to examine cultural differences as the reason for failures of trans-border investment projects in the Polish banking sector. By investment projects we mean all projects with the participation of foreign investors, which involved a merger, an acquisition, or the establishment of a new bank based in Poland and subject to Polish supervision and legal regulations. The analysis included all transactions of this type which took place in the Polish banking sector in the years 1994-2010. The sample comprised 31 projects: 16 mergers and acquisitions and 15 establishments of new banks. The results do not confirm most of the earlier findings on the subject, which showed a clear connection between cultural dimensions and risk taking. Unlike most other research, our study showed that cultural factors have no significant influence upon risk taking in banking by strategic investors in the Polish banking sector. Only the dimension of power distance proved to explain the reasons for failures. The results can be applied broadly, both as a tool for supporting the decision making in case of new investment projects, and for evaluation of the existing transactions taking place in the Polish banking sector.

*Key-Words:* cultural differences, banking sector, commercial banks, cross-border mergers and acquisitions

*Acknowledgment:* The publication is financed from the resources for science of Ministry of Science and Higher Education of the Republic of Poland under subsidies granted to the Faculty of Engineering Management of the Bialystok University of Technology.

Received: September 8, 2020. Revised: December 21, 2020. Accepted: December 31, 2020. Published: January 12, 2021

## 1 Introduction

National culture is generally understood as a society-level set of norms, beliefs, shared values, and expected behaviors that altogether serve as the guiding principles in peoples' lives [1]. It relates to particular social characteristics and behaviours resulting from tradition, history, religion, culture, as well as racial and ethnic identity. According to Hofstede, culture is defined as „the collective programming of the mind which distinguishes the member of one group or category of people from another” [2]. Hofstede [3] emphasises that culture is always a collective phenomenon, because it is at least partly shared with people who live or lived within the same social environment, which is where it was learned. By guiding human behavior, cultural values reflect what a society/group considers to be legitimate or illegitimate, good or bad, acceptable or unacceptable, or ethical or unethical [4].

Consistent with this approach, the concept of “organisational culture” was created. According to Schein [5], “Organizational culture is the pattern of shared basic assumptions that a group learns as it solves its problems of external adaptation and

internal integration, that has worked well enough to be considered valid and, therefore, to be taught to new members as the correct way to perceive, think and feel in relation to those problems.” In other words, it is a set of principles and patterns of behaviour which were created, and continue to apply, within a particular organisation. Organisational culture constitutes the point of reference in situations, where internal regulations or procedures do not necessarily exist. It regulates the conduct of all staff members within the organisation. Caretta and Schwitzer [6] specify that “culture is the result of shared values, basic, underlying assumptions and business experiences, behavior and beliefs, as well as strategic decisions. Culture is much more than a management style: it is a set of experiences, beliefs and behavioral patterns.”

The influence of organisational culture upon corporate decision making has been widely researched by a number of scientific disciplines. There is a growing awareness that culture is an important factor that affects many actions and outcomes observed in finance [7]. In more recent years, the concept of organizational culture has also

been discussed in the context of banking sectors [8]. The researchers examine the nature of the impact of national culture on bank stability [9], bank performance [10], the quality of banks' earnings [11], bank dividend policies [12], bank leverage [13] etc.

A separate topic of research is the risk culture. It is defined as a bank's norms, attitudes and behaviours related to risk awareness, risk-taking and risk management, and controls that shape decisions on risks. Risk culture influences the decisions of management and employees during day-to-day activities and has an impact on the risks they assume [14, 15]. According to the recommendation of the European Banking Authority [16]: "Institutions should develop an integrated and institution-wide risk culture, based on a full understanding and holistic view of the risks they face and how they are managed, taking into account the institution's risk appetite." Richter [17] explains that "The risk culture concepts are based on diverse theories such as cultural theory, organizational theory, or other psychological approaches." Risk culture, therefore, facilitates the conditions necessary for ensuring the optimal risk to capital ratio, while at the same time guaranteeing the security of operation. The solutions established in this area ought to contribute to effective identification, measurement, and monitoring of the incurred risk and possible losses, via the appropriate control mechanisms, system of limits, and adequate level of reserves (allowances), as well as, in case of banks, the adequate level of capitals and liquidity buffers. Note that the only criterion in evaluating the risk culture is its effectiveness in the process of risk management. Neither labour input nor the value of expenses on risk management, the number of up-to-date models and methods used in risk management, nor the manner in which they are presented in annual reports can serve as such a criterion. The one and only measurement of the effectiveness of a risk culture is the congruence between the bank's financial results and its concept of long-term value creation. This is because it may transpire that forcing culturally incompatible solutions does not work in particular countries, in spite of elaborate individualised models of banking operation, which emphasise universalism and mass scale, and which earlier worked well in several countries across the world.

The objective of this paper is to discuss cultural differences as the source of failure of trans-border investment projects in the Polish banking sector. In the context of the paper, investment projects are all the projects involving foreign investors and

mergers, acquisitions or establishment of new banks based in the Polish territory, which are subject to Polish supervision and legal regulations. The analysis includes all transactions of this type which took place in the Polish banking sector during the years 1994-2010.

The sample comprises 31 investment projects – 16 mergers and acquisitions and 15 cases where new banks were established. Poland is exceptional as far as undertakings of this type by foreign investors are concerned. The projects were determined mainly by: i) privatisation processes and the intensity of privatisation policies by individual governments after the systemic transformation, ii) the unique characteristics of the initial property transformations, namely the seeking of strategic foreign investors for Polish banks, iii) the reorientation of the strategies of reputable foreign financial institutions towards the expansion to new emerging markets in order to obtain higher return on investment than was available in the developed markets, iv) the necessity to restructure and reform banks in the early 1990s, in order to limit the extent of a banking crisis. Nevertheless, the share of foreign investors in the Polish banking sector has been decreasing systematically.

To the best of our knowledge, this paper is the first one to study the influence of a national culture on the risk-taking behavior of multinational banks in Poland. The proposed solutions can be applied broadly, both as a tool for supporting the decision making in case of new investment projects, and for evaluation of the existing transactions taking place in the Polish banking sector. Using the presented methods of evaluation of mergers and acquisitions ought to provide extra knowledge on the phenomena taking place during transactions, and consequently increase their transparency. The results ought to provide additional knowledge on the phenomena occurring during transactions. They should also complement the models currently used by supervisory institutions. Furthermore, they can constitute a premise for strategic decisions on trans-border investment projects in the markets of Central and Eastern Europe.

The remainder of this article is structured as follows. Section 2 reviews the most significant literature. Section 3 describes the data and methodology employed in the empirical research. Section 4 presents and discusses the obtained results. Section 5 summarises and presents the main conclusions.

## 2 Literature review

The recent years brought several reports on the influence of cultural differences upon the risk of business operation and the final results of mergers and acquisitions. On the one hand, the research indicates that cultural differences between the acquiring and the acquired companies may contribute to failures of mergers and acquisitions. On the other hand, they provide an opportunity for synergy resulting from the complementary character of different business cultures [18]. Stahl and Voight [19] note that “despite theoretical evidence that cultural differences can create major obstacles to achieving integration benefits, empirical research on the performance impact of cultural differences in M&A yielded mixed results: while some studies found national or organizational cultural differences to be negatively related to measures of M&A performance, others observed a positive relationship or found cultural differences to be unrelated to M&A performance.” They conclude that the explanation for the relationship between cultural differences and the effects of mergers and acquisitions is far more complicated than it is commonly acknowledged. Also Rotting and Reus [20] emphasise that there is no scientific consensus on the influence of cultural differences upon the performance of M&A transactions. The influence remains controversial, both theoretically and empirically. The authors note that the culture’s consequences for international acquisition performance need to be understood better, particularly because many tendencies occurring in projects of this type are explained via theories based on the evaluation of local phenomena. Rotting [21], too, observes certain antinomy in the research of this type. He explains that „some studies examining national cultural differences (measured by cultural distance), found a negative impact of cultural distance on the performance of international acquisitions, other studies identified a positive relationship and still others indicated that cultural distance has no direct effect on acquisition performance.”

The research on the influence of cultural differences upon the results of mergers and acquisitions is reflected in the research on the influence of those differences upon risk taking. The significant majority of reports emphasise the negative influence of cultural differences upon the risk taken in banking operation [22,23].

The mainstream of research is devoted to the relationship between the risk of banking operation and the basic dimensions of national culture as defined by Hofstede [24]: power distance,

individualism-collectivism, uncertainty avoidance and masculinity-femininity.

In their research, Kanagaretnam et al. [11, 25] focus on two cultural dimensions: individualism and uncertainty avoidance. They find that banks in low individualism and high uncertainty avoidance cultures exhibit lower levels of risk-taking as reflected in three accounting-based risk variables: volatility of net interest margin, volatility of earnings, and the Z-score. Similar conclusions are made by Bussoli [26]. She, too, notes that individualism shows a positive association with bank risk-taking and that uncertainty avoidance shows a negative association with bank risk-taking. She adds that cultural values may have a weaker influence on large banks. This translates to taking less risk in banking operation.

Ashraf and Arshad [27] take into account four cultural dimensions: power distance, individualism-collectivism, uncertainty avoidance and masculinity-femininity. They conclude that „both the national culture of home country and the national culture of host country might be important for the risk-taking decisions of a foreign affiliate of a multinational bank.” They specify that the significance of national culture is higher in the case of the investor than in the case of the bank subjected to the merger or acquisition. Their research specifies that risk taking by foreign entities is higher if the country of the parent bank is characterised by the cultural values of low uncertainty avoidance, high individualism and low power distance. The masculinity-femininity dimension is insignificant, as far as risk taking is concerned.

Ashraf et al. [28] obtain very similar results: three dimensions of culture (uncertainty avoidance, individualism and power distance) have significant direct effects on bank risk-taking. They confirm these results using alternate cultural dimensions from House et al. [29]’s framework of national culture: four comparable variables measuring almost the same society-level value constructs as measured by Hofstede. Also in this case the masculinity-femininity dimension does not have a significant direct effect on bank risk-taking behavior.

Slightly different conclusions are made by Illiashenko and Laidroo [30]. They, too, observe a negative association between the dimension of individualism and bank risk-taking. However, they find that such link is either not statistically significant or it becomes positive when national culture is adjusted for the degree of looseness-tightness. They explain that their results, although different from the findings of others, are not surprising. They believe the empirical data suggest

that the dimension of uncertainty avoidance may be weaker than previously thought and dominated by the dimension of individualism. They indicate that those conclusions are close to those drawn by Minkov [31], who, having revised Hofstede's model of national culture, concludes that uncertainty avoidance is not a predictor of any of its presumed main correlates: importance of job security, preference for a safe job, trust, racism and xenophobia, subjective well-being, innovation, and economic freedom.

Caretta et al. [32] analyse six cultural dimensions by Hofstede, listing them in their paper as: power distance, collectivism, uncertainty avoidance, masculinity, normative and indulgence. They examine the relationship between banks' distance from the default (measured by the Z-score) and the supervisory culture. According to the authors, collectivism-oriented supervisory culture reduces bank stability and the credit risk in banks' lending portfolios. They add that banks seem to increase their risk taking when the supervisory authorities have a power distance-oriented supervisory culture.

Mourouzidou-Damtsa et al. [33] examine 99 European banks selected by the EBA to perform stress tests. They argue that in spite of the network of supervision over systemic European banks, the differences in attitudes towards risk still exist between individual countries. The authors report a positive (negative) association between the cultural values of individualism and hierarchy (trust) and the risk-taking by local banks.

Another element is noted by Nguyen et al. [34]. They researched the decision-making process in credit granting. The banks whose corporate culture is orientated towards beating the competition are more prone to incurring credit risk by granting credit to clients with lower creditworthiness and by including fewer clauses in their credit contracts. This kind of behaviour is reflected in the quality of the bank's credit portfolio, due to the higher level of bad loan write-offs. The situation was different in the banks whose culture emphasises control and security.

Summing up, the empirical data confirm that chosen dimensions of national culture influence the banks' risk-taking. In most cases, the larger the disparity between national cultures of the parties participating in the project, the less likely the eventual success. The current research has so far focused mainly on 3 cultural dimensions: uncertainty avoidance, individualism and power distance. The results of these studies have changed in the case of the banking sector in recent years. Such processes can be accounted for by the adoption

of standardised methods of conducting business by strategic shareholders in all countries within the same capital group. The international nature of global financial institutions more and more frequently leads to blurring the line between different business models. As a result of conducting interconnected activities in different countries, corporate systems now form channels transmitting new technical, economic, organizational patterns and methods as well as moral and social transformations on an international scale [35-36]. The nationality of investors, board members and other persons managing the bank increasingly loses significance. Regardless of the nationality, what matters is the final effect, i.e. creating value for shareholders.

### 3 Methodology

If maximising shareholder value is the main objective of banking operation and of mergers and acquisitions, than the same criterion should be applied when measuring the performance of mergers, acquisitions, and establishment of new banks based in Poland and subject to Polish supervision and legal regulations, which are conducted with participation of a foreign investor. In other words, the only practical way of evaluating mergers and acquisitions is measuring the increase of shareholder value resulting from the consolidation processes. Consequently, the same criterion has been assumed for determining the projects' failure.

The proposed measurement is similar in its construction to the Total Shareholder Return index (*TSR*). It has been modified and supplemented with additional elements corresponding to specific characteristics of trans-national investment projects in the Polish banking sector. The indicator in its classic form includes changes of share prices, dividends and possible other benefits for shareholders (such as rights issues, financing the purchase of a new issuance of shares, income from the repurchase of shares by the bank). This has been supplemented with i) net incomes from mutual transactions with the parent company, ii) profits from the services provided to the target bank, iii) the assistance obtained by the investors from the National Bank of Poland, the Bank Guarantee Fund and other sources, which was provided as part of the restructuring and reform of the purchased banks. The hurdle rate was established as the higher of the two values: i) the required rate of return calculated according to the *CAPM* model or ii) the average rate of return on equity in the banking sector in the given year (*ROEt*).

The measure of the performance of trans-border investment projects in the context of total shareholder value creation was defined as:

$$TSVA_i = [(p_t - p_T) \cdot q] + \sum_{t=0}^n \frac{D_T + Add_T + Benef_T + Sub_T - IC_T}{\prod_{k=0}^t (1+r_k)} \quad (1)$$

where  $TSVA_i$  is the shareholder value creation for the  $i$  acquiring bank;  $p_t$  is the share price of the target bank in year  $t$ ;  $p_T$  is the purchase price paid by the acquiring bank in the analysed period  $T$ ;  $q$  is the number of shares owned by the shareholder;  $D_T$  is the dividend paid out to the shareholders of the acquiring bank in the analysed period  $T$ ;  $Add_T$  are the additional bonuses to the shareholders in period  $T$  (e.g., rights issues, financing the purchase of a new issuance of shares, income from the repurchase of shares by the bank);  $Benef_T$  are other benefits to the shareholders of the acquiring bank in period  $T$  (e.g., incomes from mutual transactions with the parent company, profit from consulting services provided to the target bank);  $Sub_T$  is the value of assistance received;  $IC_T$  is the expenditure in period  $T$ , including the purchase of shares and premiums, as well as the expenditure necessary to integrate the banks (including recapitalisation) or to commence a new project;  $r_k$  is the hurdle rate;  $n$  is the analysed period during which the outcomes of the project will be observable.

The timeframe for the research was defined as 10 years after the transaction. Assuming that the synergy effects ought to be achieved within three years, the following seven years become the period during which the shareholders may expect the creation of value as a result of their investment project.

Applying this method to all the transactions which took place in the Polish banking sector until 2010 (taking into account the 10-year evaluation period of shareholder value creation), 39 unsuccessful project were identified among the total of 84 transactions. 8 of those were deemed inappropriate for research, due to the international character of investors (which made it impossible to determine their cultural dimensions). This means that the final sample comprised 31 investment projects: 16 mergers and acquisitions and 15 cases where new banks were established (Table 1).

**Table 1. Characteristics of selected transactions**

Country of origin of the capital	Number of analysed investment projects		
	Total	Number of mergers and acquisitions	Number of newly established banks
United States	5	3	2
United Kingdom	1	1	0
Germany	6	4	2
Netherlands	2	2	0
Belgium	2	2	0
France	3	1	2
Austria	2	0	2
Belgium/France	1	0	1
Spain	1	1	0
Italy	1	0	1
Sweden	1	0	1
Denmark	2	1	1
Norway	2	1	1
Japan	2	0	2
Total	31	16	15

Source: own elaboration.

In all the 31 cases, similarly as in the case of most research projects of this kind [37-39], our measurement for levels of individual banks' risk-taking is the time-varying  $Z$ -score, which is calculated as follows:

$$Z_{it} = \frac{ROA_{it} + EA_{it}}{\sigma(ROA)_{it}} \quad (2)$$

where  $Z_{it}$  is the  $Z$ -score,  $ROA_{it}$  denotes the bank  $i$ 's return on assets in year  $t$ ,  $EA_{it}$  is the leverage ratio—the share of total equity in total assets,  $\sigma(ROA)_{it}$  is the standard deviation of return on assets.

Because the  $Z$ -score is a highly skewed measure, following the above-mentioned indication [40-41] we use the natural logarithm of the  $Z$ -score. Because higher  $Z$ -score values signify lower probability of insolvency, in order to make it easier to interpret empirical results, and following Mourouzdou-Damtsa et al. [33] and Ashraf et al. [42], we have multiplied the  $Z$ -score value by -1. Thus higher score values indicate higher risk for investors.

In order to define the relationship between bank risk-taking and cultural differences we regress bank risk on cultural and bank financial variables for each of the periods under assessment:

$$BankRisk_{it} = \beta_0 + \beta_1(Cultural\ Variables) + \beta_2(Bank\ Financial\ Variables) + \phi_i + \varepsilon_i \quad (3)$$

where *Bank Risk* is the *Z-score* of bank *i*, Cultural Variables is a vector of variables representing cultural dimensions of Hofstede, and Bank Financial Variables is a vector of bank *i* characteristics,  $\phi_i$  – represents unobservable individual effects, and  $\varepsilon_i$  is an error term.

Table 2 shows the selected diagnostic variables and Table 3 provides some descriptive statistics of the above variables.

**Table 2. Selected diagnostic variables**

Selected diagnostic variables	Description	
<b>Cultural Variables</b>		
individualism versus collectivism	according the identification of six dimensions of a national culture by Hofstede	
uncertainty versus avoidance dimension		
masculinity versus femininity		
power distance		
long-term versus short-term orientation		
indulgence versus restraint		
<b>Bank Financial Variables</b>		
Z-score		The natural logarithm of <i>Z-score</i> , multiplied by -1.
Income dynamics		The income dynamics during the 3-year period after the merger or acquisition or establishment of a new bank. The dynamics was calculated using the median.
Variation of income dynamics		Variability of income dynamics of the bank in the analysed 10-year period. The variability was calculated relative to the median.
Dynamics of balance sheet total	The dynamics of balance sheet total in the analysed 10-year period after the merger or acquisition or establishment of a new bank. The dynamics was calculated using the median.	
Variation of profit from interest and commissions on banking operation	Variation of profit from interest and commissions on banking operation in the analysed 10-year period. The variability was calculated relative to the median.	
ROE variation	The variation of <i>ROAE</i> (Return on average equity) of the bank in the analysed 10-year period. The variability was calculated relative to the median.	
The dynamics of the quotient of write-offs for reserves and value adjustment to the total sum of credits and loans granted by the bank	Median was used to calculate the dynamics.	

Source: own elaboration.

**Table 3. The basic characteristic for selected diagnostic variables**

Selected diagnostic variables	max	min	Arith metric mean	Median	Standard deviation	V(x) standard variability coeff.
<b>Cultural Variables</b>						
individualism versus collectivism	91.00	31.00	69.42	71.00	16.27	0.23
uncertainty versus avoidance dimension	94.00	23.00	64.35	65.00	21.23	0.33
masculinity versus femininity	95.00	5.00	54.27	62.00	22.55	0.42
power distance	68.00	8.00	40.05	38.00	18.30	0.46
long-term versus short-term orientation	88.00	26.00	59.24	63.00	22.01	0.37
indulgence versus restraint	78.00	30.00	55.08	55.00	13.01	0.24
<b>Bank Financial Variables</b>						
Z-score	-0.29	-5.07	-2.49	-2.31	0.99	-0.40
Income dynamics	10.05	0.88	2.25	1.84	1.69	0.75
Variation of income dynamics	1.87	0.04	0.61	0.54	0.42	0.69
Dynamics of balance sheet total	2.33	0.95	1.36	1.27	0.34	0.25
Variation of profit from interest and commissions on banking operation	8.86	0.00	0.45	0.13	1.57	3.52
ROE variation	9.28	0.34	2.07	1.54	2.06	0.99
The dynamics of the quotient of write-offs for reserves and value adjustment to the total sum of credits and loans granted by the bank	0.03	0.00	0.01	0.00	0.01	1.33

Source: own elaboration.

Following Hofstede et al. [3], we selected six dimensions of national cultures: power distance, individualism vs. collectivism, uncertainty vs. avoidance, masculinity vs. femininity, long-term orientation vs. short-term orientation, and indulgence vs. restraint. We have tried to construct the bank financial variables so that they adequately reflect the level of risk born by the bank. Therefore, we have decided to replace the traditionally used variables with the variables based on dynamics and variability. We have used medians in all the

calculations, due to their smaller sensitivity to outliers. In choosing the financial variables we have assumed that generally the banking operation in Poland is focussed on the traditional function of the bank as an intermediary: accepting deposits and granting credits.

In order to calculate the cultural distance between the considered countries of strategic shareholders and Poland, the Kogut and Singh formula was used for calculations [43]:

$$KSI = \frac{\sum_{i=1}^6 \frac{(I_{ij} - I_{iPL})^2}{V_i}}{6} \quad (4)$$

where  $I_{ij}$  is the index for the  $i$ th cultural dimension and  $j$ th country;  $I_{iPL}$  denotes the Poland's score on the  $i$ th cultural dimension; and  $V_i$  represents the variance of the index of the  $i$ th dimension. Due to critical opinions of this formula, the Euclidean distance measure was additionally used [44]:

$$ED = \sqrt{\sum_{i=1}^6 (I_{ij} - I_{iPL})^2} \quad (5)$$

and Euclidean Distance (Standardized) [45]:

$$EDS = \sqrt{\sum_{i=1}^6 \frac{(I_{ij} - I_{iPL})^2}{V_i}} \quad (6)$$

The programme Statistica ver. 13.3. by StatSoft Polska was used for calculations. The data needed to calculate equation (3) were obtained mainly from current bank reports, annual financial reports and corporate financial statements.

## 4 Analysis

### 4.1 Results

The conducted analysis does not confirm most of the earlier findings on the subject, which indicate a connection between the cultural dimensions and the risk taken. Contrary to financial indicators, such as *ROAE* variability, the variability of profit from interest and commissions in the total profit from banking operation, and the dynamics of income during the first three years after the project, the indicators for the variables connected with the cultural dimensions are insignificant (Table 4).

**Table 4. Estimations results**

N = 31	BETA	Stand. err. BETA	B	Stand. err. B	t(27)	p
Independent part			-3.1068	0.3288	-9.4478	0.0000

ROE variation	0.3498	0.1687	0.1685	0.0812	2.0735	0.0477
Variation of profit from interest and commissions on banking operation	-0.2729	0.1718	-0.1725	0.1086	-1.5882	0.1238
Income dynamics	0.2604	0.1719	0.1530	0.1010	1.5141	0.1416

Source: own elaboration.

Only after increasing the  $p$  value to 0.015 can we obtain the significance of the PDI (power distance) variable.

$$BankRisk_{it} = 0.0061PDI - 2.2449 \pm 1.0018 \quad (4)$$

(0.0099)                      (0.4389)

So far, the PDI cultural dimension has been underestimated in the context of research on risk taking. However, Ashraf et al. [27,28] note that foreign affiliates take higher risk if the parent bank's home country has low power distance as part of its cultural values. Our results contradict this finding. Nevertheless, the specific characteristics of the Polish banking sector indicate that preference for strong authority, high dependence on managers, and propensity for centralisation do not work well in the Polish context, in spite of the Polish PTI indicator according to Hofstede being relatively high (68).

It should be noted that the results were obtained on the basis of a heterogeneous group of countries which differed quite significantly in terms of cultural distance indexes (Table 5).

**Table 4. Cultural distance between Poland and individual countries of the shareholders**

Specification	KSI	ED	EDS
Austria	3.0918	75.29	4.3070
Belgium	1.8389	55.27	3.3217
Belgium/France	1.2624	46.51	2.7522
Denmark	4.8153	107.66	5.3751
France	0.8410	39.96	2.2464
Germany	1.9484	63.81	3.4192
Italy	0.8177	38.34	2.2150
Japan	1.9113	63.43	3.3864
Netherlands	3.5727	88.10	4.6300
Norway	2.6268	84.38	3.9699
Spain	0.5073	32.56	1.7447
Sweden	4.8477	108.13	5.3932
United Kingdom	3.8040	84.07	4.7775
United States	3.3682	74.99	4.4955

Source: own elaboration.

This means that failures happened both to investors from countries with large cultural differences (Denmark, Sweden) and from countries where the cultural distance was not relatively big (Italy, Spain, France).

#### 4.2 Discussion

Thus, the obtained results confirm the previous research carried out by Stahl and Voight [19] as well as Rotting and Reus [20]. The explanation of processes taking place in cross-border investment undertakings is not as clear as it was previously thought. There seem to be several reasons for that. Firstly, introducing foreign patterns of behaviour and forcing own solutions by foreign investors (which are often unsuitable for Polish conditions) does not work well in banking. The preference for shareholder value maximisation has contributed to proliferation of certain standard models of banking operation, which emphasise universalism and mass scale, and which had been tried in many countries across the world. Cross-border undertakings became elements of a modern financial pyramid consisting in taking over the bank, radically reducing the costs of its operations – mainly staff costs – and allocating funds generated in this way for the needs of the strategic shareholder, including further expansions. While such a strategy is beneficial at the initial stage, it must contribute to the problems of the acquired entity in the long term. Those same solutions resulted in failures in Poland, including for many reputable investors. Very frequently, one could observe situations in which certain groups of stakeholders have been objectified. These are employees of the acquired bank and its clients who quite often are not treated as the main source of the bank’s value, but are reduced in theory and practice to the role of opportunistic agents, hindering the primary goal of shareholders and requiring constant supervision and control. Secondly, the lack of dialogue, conviction of infallibility, overrating competences, and authoritarian management styles make key managerial competence of uncritically obeying dispositions from the main shareholder. Talented and driven people often had to leave the banks’ structures. Thirdly, in many cases the main business idea was based solely on the introduction of a bureaucratic model of budgeting, inciting internal competition, introducing various forms of pressure and coercion, and tolerating unethical actions by people obsessed with visions of advancing in the organisational hierarchy and high pay. Thus the fundamental principles of cooperation with clients, staff, and other stakeholders of a bank

were violated. Fourthly, the investors often forgot that the main factors contributing to synergy in mergers and acquisitions are: the economy of scale, the economy of scope and increased effectiveness. In most projects the emphasis was on cost reduction resulting from laying off staff and selling off superfluous fixed assets. In fact, non-financial parameters are also extremely important. They include intellectual capital, customer base, experience in the local market etc. This potential was not fully utilised by strategic investors.

#### 4.3 Robustness tests

Following [13, 28] we replace Hofstede’s cultural dimensions with House et al.’s [29] comparable dimensions in robustness tests. The GLOBE project is based on surveys conducted in mid-1990’s, i.e. newer than the original research by Hofstede. Furthermore, GLOBE identifies significantly more cultural dimensions: uncertainty avoidance, future orientation, power distance, collectivism I (institutional collectivism), collectivism II (in-group collectivism), human orientation, performance orientation and gender egalitarianism. Because the correlations between corresponding dimensions are not strong in the researched sample of countries, both in the real terms (practices), and in terms of ideas (values) (Table 6), those dimensions constitute a good alternative for robustness tests.

**Table 6. The correlations between corresponding dimensions in the test sample**

Hofstede		GLOBE	
specification		Societal Practices	Societal Values
power distance	power distance	0.5041	0.2609
individualism versus collectivism	collectivism I	-0.1864	-0.2885
	collectivism II	-0.4384	0.4868
uncertainty avoidance	uncertainty avoidance	-0.3292	0.3709
masculinity versus femininity	assertiveness	0.2971	0.3948
long-term versus short-term orientation	future orientation	0.0199	-0.1695

Source: own elaboration.

For this test, the researched sample was limited to 26, due to the smaller number of countries represented in the results of House et al. [29]. Including the above variables confirmed the results obtained earlier with the use of Hofstede’s



dimensions (i.e. they did not confirm the main relationship between the risk taken by investors and cultural dimensions).

#### 4.4 Limitations

There are some limitations to the presented research. Firstly, in spite of the widespread use of the empirical values of both Hofstede's cultural value dimensions and GLOBE, those values are out of date [46-48] and they do not take into account the cultural changes which took place since their establishment. Hofstede himself [4] argued that the results concerning his national culture dimensions reflect the historical evolution of cultural values, which makes them very stable in time. Nevertheless, the Polish banking sector shows serious discrepancies with Hofstede's results, which were originally based on surveys collected in IBM branches in 72 countries during the years 1967-73. The manner of conducting business in Poland changed dramatically as a result of the economic transformation, and the reforms in the banking sector. It is completely different to what it used to be in the 20th century. Other differences are apparent as well. For example, the business culture of French investors is now closer to Western European countries than to Mediterranean countries, even though Hofstede classified it as the latter. Still, the latest research indicates that the observed changes exist only in absolute terms, whereas in relative terms the cultural differences between countries remain stable [49-50]. Secondly, the research ignores the significant influence of macroeconomic factors upon the success of investment projects. This is particularly important because the analysed period included the years of global financial crises. However, the main criterion of sample selection was the insufficient creation of shareholder value. We therefore assumed that the choice of timing for a takeover by strategic investors constituted a key element of strategic decision making, and therefore that choosing the wrong moment for investing significantly determined the failure. Thirdly, certain data was not published, particularly in the 1990s. This made it impossible to introduce additional data, which could have broadened the knowledge on the analysed risk-taking tendencies. Such data include, for example the level of NPL in the banks, as well as the ownership of the banks' shares by their management.

## 5 Conclusions

Trans-border investment projects open opportunities of faster development and winning a strong competitive position in the market. They are merely a means of implementing the banking institutions' basic goals, but they provide an important alternative for organic growth, which, when skilfully executed, may decide about the increase of strategic shareholder value. The economic research on the subject is dominated by data from developed markets. Directly transferring the results and theoretical and methodological concepts inferred from such data to the conditions and situations in the Polish banking sector needs to be done with utmost caution, due to the disproportions in the development of financial markets and in the architecture of banking systems and supervisory institutions.

The research presented in this paper shows that, contrary to most earlier results, cultural factors had little influence upon the banking risk taken by strategic investors in the Polish banking sector. The PDI dimension proved to be the only variable explaining the failures. This means that imposing standard, globally universal business models did not work in Polish conditions. It was quite often forgotten that the main factors determining the occurrence of the synergy effect are: increase in the effectiveness of operations and the use of the scale and the scope effects. Meanwhile, most mergers and acquisitions were limited only to the reduction of costs resulting from the dismissal of personnel and sale of redundant fixed assets. Attempts to maximize the synergy effects were also too much focused only on financial aspects. Meanwhile, such non-financial parameters as: management capacity, intellectual capital, customer base, local market experience etc., whose potential has not been fully utilized by strategic investors, are also of great importance. Ignoring the specificity of the local market, overestimating the models used earlier in other countries, and authoritarian management models were the main factors leading to failure. Once again, we can see the importance of developing idiosyncratic business models and internal dialogue. Furthermore, the results prove that trans-border investment projects are among the most complex and complicated undertakings. Explaining their failures requires analysing each transaction individually and considering a far broader scope of factors than merely cultural dimensions. The results can be applied broadly, both as a tool for supporting the decision making in case of new investment projects, and for evaluation of the existing transactions taking place in the Polish banking sector.

*References:*

- [1] Illiashenko, P., & Laidroo, L., National Culture and Bank Risk-taking: Contradictory Case of Individualism, *Research in International Business and Finance*, Vol. 51, No. C, 2020, pp. 1-15.
- [2] Hofstede, G., Cultural Dimensions in Management and Planning, *Asia Pacific Journal of Management*, Vol. 1, 1984, pp. 81–99.
- [3] Hofstede, G., Hofstede, G. J. & Minkov, M., *Cultures and Organizations: Software of the Mind*, McGraw-Hill, New York 2010.
- [4] Hofstede, G., *Culture's Consequences: Comparing Values, Behaviors, Institutions and Organizations Across Nations*, Sage Publications, Thousand Oaks, CA, 2001.
- [5] Schein, E.H., *Organisational Culture and Leadership*, Jossey Bass, San Francisco 1985.
- [6] Carretta, A., & Schwizer, P., Risk Culture. In Carretta, A., Fiordelisi, F., & Schwizer, P., *Risk Culture in Banking*, Palgrave Macmillan Studies in Banking and Financial Institutions, Cham 2017, pp. 11-30.
- [7] Frijns, B., Gilbert, A., Lehnert, T., Tourani-Rad, A., Uncertainty Avoidance, Risk Tolerance and Corporate Takeover Decisions, *Journal of Banking & Finance*, Vol. 37, No. 7, 2013, pp. 2457–2471.
- [8] Song, F., & Thakor, A.V., Bank Culture, *Journal of Financial Intermediation*, Vol. 39, 2019, pp. 59-79.
- [9] Carretta, A., Farina, V., Fiordelisi, F., & Lopes, F.S.S., Don't Stand So Close to Me: The Role of Supervisory Style in Banking Stability, *Journal of Banking & Finance*, Vol. 52, No. C, 2015, pp. 180–188.
- [10] Boubakri, N., Mirzaei, A., & Samet, A., National Culture and Bank Performance: Evidence from the Recent Financial Crisis, *Journal of Financial Stability*, Vol. 29, No. C, 2017, pp. 36-56.
- [11] Kanagaretnam, K., Lim, C.Y., & Lobo, G.J., Effects of National Culture on Earnings Management in Banks, *Journal of International Business Studies*, Vol. 42, No. 6, 2011, pp. 853-874.
- [12] Zheng, C., Ashraf, B.N., National Culture and Dividend Policy: International Evidence from Banking, *Journal of Behavioral. and Experimental Finance*, Vol. 3, 2014, pp. 22–40.
- [13] Haq, M., Hu, D., Faff, R., & Pathan, S., New Evidence on National Culture and Bank Capital Structure, *Pacific-Basin Finance Journal*, Vol. 50, 2018, pp. 41-64.
- [14] Basel Committee on Banking Supervision, *Guidelines. Corporate Governance Principles for Banks, Bank for International Settlements*, 2015.
- [15] Financial Stability Board, *Guidance on Supervisory Interaction with Financial Institutions on Risk Culture. A Framework for Assessing Risk Culture*, April 2014.
- [16] European Banking Authority, *Final Report. Guidelines on Internal Governance under Directive 2013/36/EU*, EBA/GL/2017/11, 2017.
- [17] Richter, C., *Development of Risk Culture Intensity Index to Evaluate the Financial Market in Germany*, Proceedings of FIKUSZ'14 Symposium for Young Researcher, 2014, pp. 237-248.
- [18] Reus, T. H., & Lamont, B. T., The Double-Edged Sword of Cultural Distance in International Acquisitions, *Journal of International Business Studies*, Vol. 40, No. 8, 2009, pp. 1298–1316.
- [19] Stahl, G.K., & Voigt, A., The Performance Impact of Cultural Differences in Mergers and Acquisitions: A Critical Research Review and an Integrative Model, *Advances in Mergers and Acquisitions*, Vol. 4, pp. 51-82.
- [20] Rottig, D., & Reus, T. H., Research on Culture and International Acquisition Performance: A Critical Evaluation and New Directions, *International Studies of Management & Organization*, Vol. 48, No. 1, 2018, pp. 3–42.
- [21] Rottig, D. (2017). Meta-Analyses of Culture's Consequences for Acquisition Performance: An Examination of Statistical Artifacts, Methodological Moderators and the Context of Emerging Markets, *International Journal of Emerging Markets*, Vol. 12, No. 1, 2017, pp. 8–37.
- [22] Faia, E., Laffitte, S., & Ottaviano, G.I.P., Foreign Expansion, Competition and Bank Risk, *Journal of International Economics*, Vol. 118, 2019, pp. 179-199.
- [23] Chen, M., Wu, J., Jean, B.N., & Wang, R., Do Foreign Banks Take More Risk? Evidence from Emerging Economies, *Journal of Banking and Finance*, Vol. 82, 2017, pp. 20-39.
- [24] Hofstede, G., *Culture's Consequences. International Differences in Work-related Values*, Beverly Hills 1980, CA: Sage.
- [25] Kanagaretnam, K., Lim, C.Y., & Lobo, G.J., Influence of National Culture on Accounting Conservatism and Risk-Taking in the Banking Industry. *The Accounting Review*, Vol 89, No. 3, 2014, pp. 1115–1149.
- [26] Bussoli, C., Influence of National Culture on Bank Risk-Taking in the European System, in: Carretta, A., Fiordelisi, F., & Schwizer, P. (Eds.), *Risk Culture in Banking*, Palgrave Macmillan Studies in Banking and Financial Institutions, Cham 2017, pp. 215-239.
- [27] Ashraf, B.N., & Arshad, S., Foreign Bank Subsidiaries' Risk-taking Behavior: Impact of Home and

Host Country National Culture, *Research in International Business and Finance*, Vol. 41, 2017, pp. 318-335.

- [28] Ashraf, B.N., Zheng, C., & Arshad, S., Effects of National Culture on Bank Risk-Taking Behavior, *Research in International Business and Finance*, Vol. 37, 2016, pp. 309–326.
- [29] House, R.J., Hanges, P.J., Javidan, M., & Dorfman, P.W., Gupta, V., *Culture, Leadership and Organizations*, Sage Publishers, New York 2004.
- [30] Illiashenko, P., & Laidroo, L., National Culture and Bank Risk-taking: Contradictory Case of Individualism, *Research in International Business and Finance*, Vol. 51, No. C, 2020, pp. 1-15.
- [31] Minkov, M., A Revision of Hofstede’s Model of National Culture: Old Evidence and New Data from 56 Countries, *Cross Cultural & Strategic Management*, Vol. 25, No. 2, 2018, pp. 231–256.
- [32] Carretta, A., Farina, V., Fiordelisi, F., Schwizer, P., & Lopes, F. S. S., Don’t Stand so Close to Me: The Role of Supervisory Style in Banking Stability, *Journal of Banking & Finance*, Vol. 52, 2014, pp. 180–188.
- [33] Mourouzidou-Damtsa, S., Milidonis, A., & Stathopoulos, K., National Culture and Bank Risk-Taking, *Journal of Financial Stability*, Vol. 40, 2019, pp. 132-143.
- [34] Nguyen, D.D., Nguyen, L., & Sila, V., Does Corporate Culture Affect Bank Risk-Taking? Evidence from Loan-Level Data, *British Journal Management*, Vol. 30, 2019, pp. 106-133.
- [35] Czerniawska, M., & Szydło J., The Worldview and Values – Analysing Relations, *WSEAS Transactions on Business and Economics*, Vol. 17, 2020, pp. 594-607.
- [36] Szydło, J., & Grześ-Bukłaho, J., Relations between National and Organisational Culture—Case Study, *Sustainability*, Vol. 12, No. 4, 2020, pp. 1-22.
- [37] Caiazza, S., Cotugno, M., Fiordelisi, F., & Stefanelli, V., The Spillover Effect of Enforcement Actions on Bank Risk-Taking, *Journal of Banking & Finance*, Vol. 91, 2018, pp. 146–159.
- [38] Demirgüç-Kunt, A., & Huizinga, H., Bank Activity and Funding Strategies: The Impact on Risk and Returns, *Journal of Financial Economics*, Vol. 98, No. 3, 2010, pp. 626–650.
- [39] Houston, J.F., Lin, C., Lin, P., & Ma, Y., Creditor Rights, Information Sharing, and Bank Risk Taking, *Journal of Financial Economics*, Vol. 96, No. 3, 2010, pp. 485–512.
- [40] Lepetit, L., & Strobel, F., Bank Insolvency Risk and Z-score Measures: A Refinement, *Finance Research Letters*, Vol. 13, 2015, pp. 214–224.
- [41] Laeven, L., & Levine, R., Bank Governance, Regulation and Risk Taking, *Journal of Financial Economics*, Vol. 93, No. 2, 2009, pp. 259–275.
- [42] Ashraf, B.N., Zheng, C., & Arshad, S., Effects of National Culture on Bank Risk-taking Behavior, *Research in International Business and Finance*, Vol. 37, 2018, pp. 309-326.
- [43] Kogut, B., & Singh, H., The effect of national culture on the choice of entry mode, *Journal of International Business Studies*, Vol. 19, 1988, pp. 411–432.
- [44] Beugelsdijk, S., Kostova, T., Kunst, V.E., Spadafora, E., & van Essen, M., Cultural Distance and Firm Internationalization: A Meta-Analytical Review and Theoretical Implications, Vol. 44, No. 1, 2018, pp. 89-130.
- [45] Konara, P., & Mohr, A., Why We Should Stop Using the Kogut and Singh Index, *Management International Review*, Vol. 59, 2019, pp. 335–354.
- [46] Taras, V., Kirkman, B.L., & Steel, P., Examining the Impact of Culture’s Consequences: A Three-Decade, Multilevel, Meta-Analytic Review of Hofstede’s Cultural Value Dimensions, *Journal of Applied Psychology*, Vol. 95, No. 3, 2010, pp. 405-439.
- [47] Kirkman, B.L., Lowe, K.B., & Gibson, C.B., A Quarter Century of Culture’s Consequences: A Review of Empirical Research Incorporating Hofstede’s Cultural Values Framework, *Journal of International Business Studies*, Vol. 37, 2006, pp. 285–320.
- [48] Shenkar, O., Cultural Distance Revisited: Towards a More Rigorous Conceptualization and Measurement of Cultural Differences, *Journal of International Business Studies*, Vol. 32, No. 3, 2001, pp. 519–535.
- [49] Santos, H.C., Varnum, M.E.W., & Grossmann, I., Global Increases in Individualism, *Psychological Science*, Vol. 28, No. 9, 2017, pp. 1228–1239.
- [50] Beugelsdijk, S., Maseland, R., & van Hoorn, A., Are Scores on Hofstede’s Dimensions of National Culture Stable over Time? A Cohort Analysis, *Global Strategy Journal*, Vol. 5, No. 3, 2015, pp. 223–240.

## **Creative Commons Attribution License 4.0 (Attribution 4.0 International, CC BY 4.0)**

This article is published under the terms of the Creative Commons Attribution License 4.0

[https://creativecommons.org/licenses/by/4.0/deed.en\\_US](https://creativecommons.org/licenses/by/4.0/deed.en_US)