

## TO BE BETTER – ANOTHER STEP ON THE WAY TO MORE EFFECTIVE IMPLEMENTATION STRATEGY AT UNIVERSITIES

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**Purpose:** The main objective of the study is to verify the relationship between the factors influencing the strategy implementation process, the degree of achievement of strategic goals (as a measure of the effectiveness of the strategy implementation) and the strategic approach.

**Design/methodology/approach:** Standardized research questionnaire was used. 152 universities in Poland were subject to the study. The research sample included public and private universities

**Findings:** At the outset, it should be noted that among the studied sample, the largest number of universities is characterized by an adaptive 36% and a classic 31% strategic approach. In turn, the visionary approach is characteristic of 20% of universities, and the shaping approach to the strategy - only 13%. In the case of the classic approach to strategy, almost 75% of respondents indicated that the level of implementation of strategic goals is at the level of 25 to 74%. However, none of the respondents indicated the level of achievement of the goals at the level of 75 to 100%, which confirms the well-known statements about the variability and unpredictability of the environment of modern universities.

**Originality/value** Due to the increasing variability and unpredictability of the environment of contemporary universities and the relatively large number of publications examining the barriers to strategy implementation at universities, it seems that the verification of the relationships between the factors influencing the strategy implementation process, the degree of achieving strategic goals or the strategic approach may increase the percentage of effectively implemented strategies at universities. The article presents the detailed results of the analysis of a questionnaire survey covering the management staff and employees influencing the implementation of the strategy at universities.

**Keywords:** Higher education, university, strategy, strategy implementation, strategic management.

**Category of the paper:** Research paper.

## 1. Introduction

Over the past decades, universities across Europe have undergone a series of profound changes. Due to the specific nature of an institution such as a university, these changes are particularly interesting, and the results of the activities carried out are often even surprising. The literature on the subject also emphasizes the variability, unpredictability and turbulence of the university's external environment, as well as the influence of stakeholder groups. It is indicated that these pressures significantly influenced the management of contemporary universities. It seems reasonable to quote here the words of Bisbee & Miller: "The challenges faced by higher education institutions are becoming larger and more complex and require a continuous line of leaders who can make the changes needed for sustained performance" (Bisbee, 2015). There are also widespread opinions that modern universities are developing a disturbing imbalance with their environment. Often struggling with a significant overload of requirements and a shortage of rapid response capabilities. Traditional university management models, in which collegial decision-making plays an important role, are considered outdated and completely mismatched to the changing environment. The increase in competitiveness, globalization or the influence of the knowledge-based economy also have a significant impact on the management of modern universities. This new dimension of reality forces universities to develop and effectively implement future development concepts. In the light of the above considerations, numerous attempts to change this weak situation can be observed both in the literature on the subject and in the management of the contemporary university. There are numerous empirical as well as theoretical publications (Siegel et al., 2015; Holstein et al., 2016; Deem, 2007; Rothaermel et al., 2007; Buckland et al., 2009) showing that modern universities are moving towards strategic management based on planning, formulation, implementation of strategies and control of implemented activities. In the light of the conducted research, however, it should be emphasized that there is a huge gap between the empirical research conducted in the area of universities and the implemented activities in the real world. As, for example, Taylor & Machado note: this disconnection undermines the ability to formulate effective strategies for their conceptual understanding in terms of how they can be more effective (Taylor et al., 2006).

In the light of the considerations, it seems justified to deepen the research in the presented area in order to propose measures to increase the percentage of successfully implemented strategies at universities. The subject of this study is to verify the relationship between the factors influencing the strategy implementation process, the degree of achievement of strategic goals (as a measure of the effectiveness of the strategy implementation) and the strategic approach. The study used the method of collecting data in an open (explicit) and standardized way. For this purpose, a standardized research questionnaire was used. 152 universities in Poland were subject to the study. The research sample included public and private universities.

## 2. The necessity to use strategic management at universities

When analyzing the literature on the subject, it can be stated that today when referring to the concept of management, it most often refers to strategic management. Due to the fact that nowadays the concept of strategic management at universities is grossly overused, for the purposes of this study, it was decided to quote a definition that will be the basis for further considerations. Therefore, strategic management is understood as a comprehensive process consisting of many elements that must effectively interact and function together. These elements include (but are not necessarily limited to) institutional culture, strategic planning, leadership, institutional research, resource allocation, financial, personnel and human resource management, leadership, research and academic activities, and considering the needs of its stakeholders, including: in students, employees or companies.

Over the last decades, not only in Europe, but also around the world, a number of changes have been observed, which, to a different extent and with a different frequency, are subject to universities. The need to strengthen the role of universities in shaping the knowledge-based economy (Mosey et al., 2012; Chapple et al., 2012; Rasmussen et al., 2007) the need for commercialization of scientific research (Rothaermel et al., 2007) and (Rasmussen et al., 2015), the development of multidisciplinary institutes (Mosey et al., 2012), and (Mitchell et al., 2010), (Graham et al., 2006; Wilson et al., 2011; Rabin et al., 2015) or the transfer of university technologies (Chapple et al., 2012) are just some of the aspects influencing the change of expectations towards modern universities. Not without significance is also a marked increase in competition on the market of educational services, globalization, or the need to take into account the needs of university stakeholders in the management process. In light of the above, it is indicated that goal-oriented strategic management is of key importance for the success of the university. In the case of universities, it is also important to act in the field of education, research as well as the mobility of employees and students (Bakoğlu et al., 2016). It is well known that the effective implementation of the strategy is of key importance for the development of any organization. Although the literature on the subject is rich in works on strategic management (Buckland et al., 2009) and (Boyce et al., 2008; Sager, 2009; Etzkowitz, 2015) in universities, as well as methods or tools to support this process, there are still numerous examples of universities in the presented area that were not able to implement their strategic plans. It is indicated that this is largely due to inappropriate implementation of the strategy. The problem with the implementation of future development concepts is closely related to the fact that it covers a wide range of issues. It is usually very difficult for management to take into account all the elements, and also requires considerable knowledge and experience in the presented area. The management focuses only on selected aspects, which unfortunately fails in many cases. Because, as Segatto, de Padua, & Martinelli point out, the implementation of the strategy must be a holistic system, focused on the integration of individual components.

(Segatto et al., 2013) Ferlie, on the other hand, emphasizes that in most universities the strategy is formalized systematically by more and more professional management (Ferlie et al., 2008), however, in many cases it leads to a "quasi-strategy" (Buckland, 2009).

In the light of the considerations, it should be noted that despite numerous research works, the area of strategic management in universities is still characterized by a research gap. As it has been shown, the percentage of successfully implemented strategies in universities is very low, and the very process of strategy implementation in universities still requires improvement. Therefore, there is a justified necessity and need to study the entity which is the university, as well as to study the relationships between the factors influencing the process of strategy implementation, the degree of achievement of strategic goals and the strategic approach.

### **3. Operational risk in strategic management**

#### **3.1. Method**

The considerations presented above indicate the legitimacy of considering the issue of factors influencing the strategy implementation process at universities. Therefore, it is indicated that the analysis of factors should be included in individual stages of the strategy implementation process at universities. This analysis was the basis for the conducted research. Their main goal was to test the relationship between the occurrence of individual factors influencing the strategy implementation process at universities, the degree of achievement of strategic goals (as a measure of the effectiveness of the strategy implementation) and the implemented strategic approach. Due to the nature of the data, testing of these relationships was performed using a difference test and a correlation test.

In the light of the research conducted, the author of this paper would like to draw attention to a significant phenomenon, also articulated in the literature on the subject, referred to as "execution holes". It is still effectively implemented, for reasons that seem irrational, i.e. impossible to explain by the heuristic of behavior or any economic law (Powell, 2004). As J. Radomska rightly points out, in such a case it should be taken into account that the nature of the implemented development concept also has an impact on the implementation of the strategy. This element determines the very process of the strategy implementation, its scope, course and intensity of the influence of factors supporting or hindering the implementation of the adopted development concepts (Radomska, 2014). In the light of the above considerations, it should be noted that the conducted research, in addition to the analysis of the factors influencing the strategy implementation process in universities, will also concern the analysis of the nature of the strategy itself as an element determining not only the way of using resources,

but also the aggressiveness of the actions taken, as well as the comprehensiveness and scope of necessary analyzes. This is confirmed by the results of research showing that the type of the implemented strategy can be treated as a determinant of the achieved results and a factor influencing the competitive position of the organization (Angel, 2008).

With regard to the research objective described above, two research hypotheses have been formulated, which are as follows:

1. There is a relationship between the presence of specific factors influencing the strategy implementation process at universities and the degree of achievement of strategic goals.
2. There is a relationship between the degree of achievement of strategic goals at universities and the implemented strategic approach.

The hypotheses described above were tested as a result of the research. The research methodology adopted the concept of Dorminey and Mohn according to which a descriptive scale and risk assessment in terms of likelihood and impact should be applied to the risk analysis (Dorminey et al., 2007). The probability has been defined as: 1 - very unlikely, 2 - unlikely, 3 - medium probability, 4 - probable and 5 - almost certain.

In turn, the strength of the impact was determined: 1 - very low impact, 2 - low impact, 3 - medium impact, 4 - high impact and 5 - very high impact. The risk level was calculated as the product of the likelihood of a given factor occurring and the impact assessment (Dorminey et al., 2007).

The starting point for the conducted empirical research was an in-depth analysis of the literature on the subject, mainly research areas concerning factors influencing the process of strategy implementation and strategic management at universities<sup>1</sup>. The result of this analysis was the preparation of a research tool in the form of a questionnaire consisting of three parts. It was the basis for the research. The study was conducted using the PAPI (Paper and Pencil Interview) technique, based on a research questionnaire. The first part concerned the definition of the implemented strategic approach. On the other hand, the second section includes questions concerning the determination of the strength of influence and the probability of 113 factors influencing the strategy implementation process.

Variables determining the significance of a given factor influencing the process of strategy implementation at universities were defined using an ordinal scale. The aim was to obtain information on the factors influencing the strategy implementation process at universities in Poland and the probability of their occurrence in the surveyed organizations. The degree of achievement of strategic goals was also distinguished using an ordinal scale.

The reliability and reliability of the measurement scales was verified by calculating the Cronbach's alpha reliability coefficient for aggregated measures. Due to the fact that the value of the coefficient is 0.93 (Hair et al., 2006), the measurement tools used can be considered reliable.

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<sup>1</sup> The web of science database, Elsavier, was analyzed in the years 2007-2024, using keywords: strategic management in universities, risk of strategy implementation, strategy implementation factors.

As it has already been mentioned, the research aimed at identifying the interrelationships between the occurrence of individual factors influencing the strategy implementation process at universities, and the degree of achievement of strategic goals (as a measure of the effectiveness of strategy implementation) and the strategic approach. A closer description is presented below, adopted as the basis for the conducted analyzes. The first area of research was related to the effectiveness of the strategy implementation process defined by the degree of achieving strategic goals. It is presented on a scale from 1 to 5, where:

- 1 - Means a very low probability (5%),
- 2 - Unlikely (25%),
- 3 - Moderately likely (50%),
- 4 - Probable (75%),
- 5 - Almost certain (90%).

In the next stage, the data was grouped. The second of the specified areas concerned the implemented strategic approach. The research was based on the questionnaire proposed by Reeves, Haanaes and Sinha (Reeves et al., 2015). The proposed concept makes it possible to forecast changes in the environment, both internal and external (determining how much in advance and with what detail it is possible to forecast the results of the organization, competition dynamics, market expectations and demand) as well as the ability to influence them (determining susceptibility to influences, i.e. the degree of impact to the above factors). Respondents were asked to identify one of the statements that best describes the current strategy implementation practices, the approach to the strategies they intend to implement, and the perception of the university environment. It was assumed that two out of three indications for a specific strategic approach will allow the classification of a university to one of the five specified types (their characteristics are presented below):

- Classic - a university is able to predict changes in the environment (the environment is stable), however, it cannot influence them. This approach is based on the classic method of creating and implementing a strategy, assuming a planning approach and the use of quantitative forecasting methods in subsequent stages of planning.
- Adaptive - a university cannot predict changes in the environment and cannot influence this environment. This requires universities to react quickly to the diagnosed changes and experiment with the implemented strategy. Close integration between operating activities is essential and the implemented development concept, subject to constant modification.
- Visionary - a university has the ability to predict and influence changes in the environment, which gives the opportunity to shape new consumer and market needs. This approach is characterized by the possibility of achieving bold strategic goals. However, the necessity to follow the chosen course and the willingness to engage the necessary resources in the activities is indicated.

- Formulating - a university cannot predict changes in the environment, but it can influence them. Shaping the market situation enables universities to maximize benefits and increase their competitive advantage. This approach is based on short-term planning and the flexibility of the organization.
- Renewing - an approach characteristic of universities which, due to their weak competitive position, are first forced to undertake actions to overcome the crisis situation, and only in the next steps can they allow themselves to choose a different strategic approach. As a rule, this approach is defensive in nature, primarily focusing on cost reduction and capital protection. In the initial phase, the university implements a short-term strategy whose main goal is survival. After the end of the crisis phase, there is a transition to a long-term strategy.

The third area of research concerned factors influencing the strategy implementation process. The respondents were asked to assess the impact and probability of occurrence of each of the 113 factors classified under three areas: strategy, management and employees, taking into account the four stages of the strategy implementation process: planning, formulation, implementation, and control and monitoring. These areas have been specified on the basis of the adopted research concept based on the assumptions of the aforementioned EFQM model and taking into account the results of pilot studies carried out in universities in Poland. An in-depth analysis of the literature on the subject showed the application value of the EFQM model from the point of view of the strategy implementation process, because the presented model contributes to the integrative development and implementation of the development concept (Revuelto-Taboada et al., 2011). In addition, it should be noted that the analysis of many research studies on the strategy implementation process allowed to identify areas, also included in the EFQM model, which the author of this paper considered the most important from the perspective of the strategy implementation process, i.e. strategy, management and employees. Additionally, each of the categories has been divided into four stages of the strategy implementation process: planning, formulation, implementation as well as control and monitoring.

From the specified areas and stages of the strategy implementation process, a set of factors constituting its components was developed. The presented factors are treated as formal indicators (determinants of a complex phenomenon), and thus building elements of the presented concept. The table presenting the individual factors influencing the strategy implementation process was presented and discussed in detail in our previous work, it was also an element of the questionnaire.

In the first stage of the quantitative study, the method of collecting data in an open (explicit) and standardized manner was used. For this purpose, a standardized research questionnaire was used. 152 universities in Poland were subject to the study. The research sample included various universities, both public and private. The sample size was determined taking into account the constraints associated with the implementation of the study (difficult availability of people in

managerial positions in universities, responsible for the implementation of the strategy). The research sample accounted for 43% of the population. The list of universities in Poland prepared by the Ministry of Education and Science was used as the survey<sup>2</sup>. The website contains an up-to-date and complete list of both public and private universities in Poland.

The study used the stratified random method, based on dividing the statistical population into subsets, which were distinguished on the basis of features significant for the study. This results in the division of the frame into quantitatively and qualitatively different parts. The drawing of research units within individual subgroups was simple, which means that each unit within a given stratum had the same probability of being found in the sample. Due to the fact that direct drawing of independent samples is performed within each layer in a manner that is separate from the other layers (the set is exhaustive, which means that each element is included in one of the layers). Based on the calculations made for the significance level specified at the level of  $\alpha = 0.05$ , the level of the presumed maximum fraction error in the main part of the study was set at a level close to 0.1%.

The subject of the study were factors influencing the strategy implementation process, the effectiveness of the strategy implementation process (expressed by the degree of achievement of strategic goals) and the implemented strategic approach. In the next stage, statistical tools were used to analyze the obtained values. The research sample was selected in a disproportionate way. This means that the sample structure does not reflect the general population. Thus, in order to compensate for the inhomogeneous probabilities of the population units entering the sample, the sample weighting was performed. The decrease in the share of the smallest higher education layers was due to their dominance in the population. The respondents in the study were people holding managerial positions who have an impact on the strategy implementation process in universities in Poland.

When summarizing, it should be pointed out that the literature on the subject lacks research results concerning the relationship between a specific type of strategy implemented at universities and the achieved result (Salavou, 2010). There is a certain discrepancy in the presented area, as some researchers argue that the implementation of one classic strategy positively influences the results achieved by the organization (Thornhill et al., 2010). On the other hand, other authors emphasize that combining several development concepts may result in a significant improvement in business results. The analysis of the research on the strategy implementation process allowed for the specification of the areas classified in the EFQM model as the potential category, i.e. those having the greatest impact on the process of implementing development concepts. One can indicate here: management (leadership), employees or strategy (Radomska, 2014). In each of the presented areas, the factors that are its components have been specified.

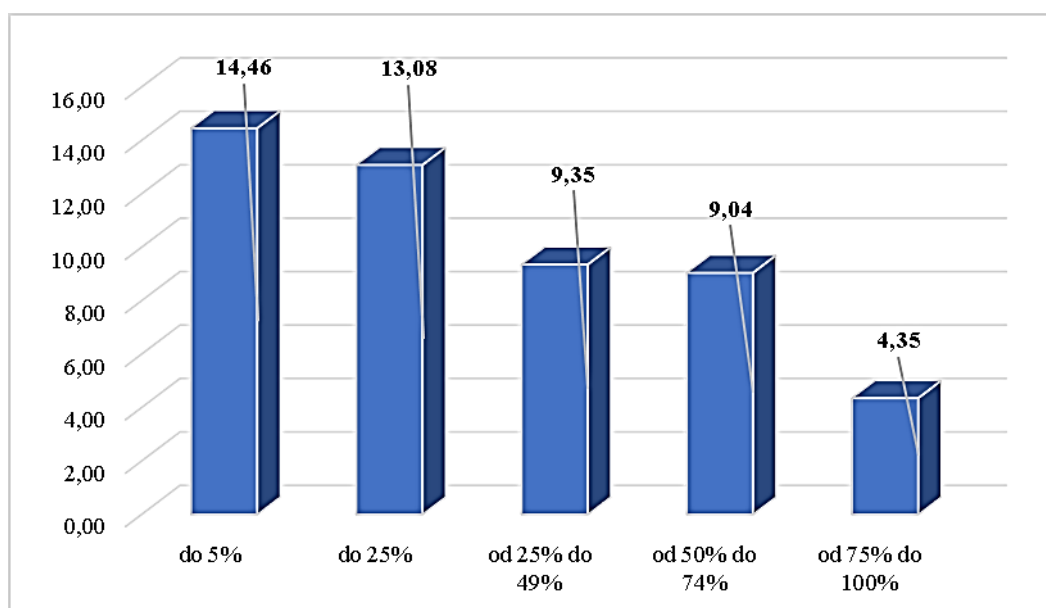
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<sup>2</sup> <https://www.gov.pl/web/edukacja-i-nauka/szkolnictwo-wyzsze>, 13.11.2023.



### 3.2. Result and discussion

In order to test the first of the formulated hypotheses, assuming the relationship between the presence of factors influencing the strategy implementation process at universities and the degree of achieving strategic goals, a number of analyzes were carried out, the results of which are discussed in detail later in the study. In the first stage of the research, the overall level of risk was analyzed, broken down into individual target achievement ranges. The level of operational risk was calculated as the product of the average probability of occurrence and the assessment of the impact of all operational risk factors. Figure 1 shows the results obtained for universities in Poland.



**Figure 1.** Operational risk level in individual achievement ranges complex strategic goals at universities.

Source: Own study.

The analysis of Figure 1 allows for the observation of a certain regularity indicating a decrease in the level of operational risk with a simultaneous increase in the percentage of goals achieved. In the light of the above, it seems that it can be assumed that those universities that demonstrate greater effectiveness in achieving the assumed goals feel less threatened by operational risk factors. This may be related to the elimination and elimination of the negative impact of risk factors, resulting, inter alia, from greater awareness of their existence among universities.

The correlation between the overall level of risk and the degree of achievement of strategic goals was also calculated. The result is presented in Table 1.

**Table 1.**

*Correlation between the overall level of operational risk and the degree of achievement of strategic goals at universities*

	<b>The degree of achievement of strategic goals and the level of operational risk (total average)</b>
<b>Pearson's correlation</b>	0,456**
<b>Significance (two-sided)</b>	0,000
<b>N</b>	152

Source: Own study.

The average level of correlation in the case of universities indicates the existence of the assumed correlation and allows for a positive test of the research hypothesis (Hypothesis No. 1).

In the next stage, an analysis of the correlation between the degree of achievement of strategic goals at universities and the probability and assessment of the occurrence of risk elements, broken down by individual factors, was performed. The obtained results indicate the lack of a statistical correlation with an average strength of the relationship between the degree of achievement of strategic goals and the probability of occurrence of individual risk factors ( $r = 0.156$ ). On the other hand, there was a statistical correlation between the degree of achievement of statistical goals and the assessment of significance ( $r = 0.611$ ).

**Table 2.**

*Correlation between the degree of achievement of strategic goals and the probability and assessment of the occurrence of the factor at public and private universities*

		<b>Universities</b>	
		<b>Risk factors - probability</b>	<b>Risk factors - assessment</b>
<b>The degree of implementation of strategic goals</b>	<b>Pearson's correlation</b>	0,156	0,611
	<b>Significance (two-sided)</b>	0,054	0,000
	<b>N</b>	152	152

Source: Own study.

Interesting results were obtained by analyzing the relationship between the degree of achievement of strategic goals and the assessment of the impact of risk factors. Significantly statistically positive correlations were found ( $r = 0.626$ ). The obtained results allow to conclude that in the case of universities, an increase in the assessment of the impact of individual factors on the failure to implement the university's strategy translates into an increase in the degree of implementation of strategic goals. Therefore, it can be concluded that being aware of the high impact of operational risk factors may be used to take actions aimed at reducing it.

In order to obtain more detailed relationships, the correlations between the level of achievement of strategic goals and the areas and stages of operational risk were calculated. The results are presented in Table 3.

The specified correlations are moderate. On the other hand, a positive correlation indicates that with the increase in the level of risk, the degree of achievement of strategic goals increases, which seems to be a quite surprising result. These dependencies are characteristic of the stages:

formulation and implementation of strategies, described in the literature as the most problematic. Therefore, it can be concluded that the management staff of universities is fully aware of the numerous difficulties occurring in these stages of the implementation process, and the higher probability of the emergence of risk factors does not adversely affect the possibility of a satisfactory implementation of development concepts in the indicated areas, management and employees. In light of the above, it seems justified to consider the most sensitive area: management (stages: formulation and implementation of the strategy) and the area: employees (stage: implementation).

**Table 3.**

*Correlations between the level of operational risk for the areas and stages of the strategy implementation process and the degree of achievement of strategic goals at universities*

Areas	Stage	Universities		
		Pearson's correlation	Significance (two-sided)	N
Strategy	Planning	0,222	0,510	152
	Formulating	0,469	0,106	152
	Implementation	0,555	0,121	152
	Control and monitoring	0,970	0,155	152
Management	Planning	0,959	0,141	152
	Formulating	0,652	0,008	152
	Implementation	0,5768	0,015	152
	Control and monitoring	0,201	0,702	152
Employees	Planning	0,760	0,136	152
	Formulating	0,767	0,233	152
	Implementation	0,570	0,033	152
	Control and monitoring	0,201	0,702	152

Source: Own study.

In the opinion of the authors of this paper, the obtained results can be considered interesting, as it would seem that the most critical stages of the strategy implementation process at universities in the area of management and employees are slightly more controlled and measured than, for example, those related to the strategy at all stages of the process. Its implementation. The analysis of the obtained results allows us to accept the research hypothesis only partially.

The second of the proposed hypotheses assumed that the existence of the relationship between the degree of achievement of strategic goals and the strategic approach implemented would be checked at universities. In order to verify the hypothesis, the Kruskal-Wallis difference test was performed for independent samples, which showed the significance level at the level of 0.000. The results are presented in Table 4.

**Table 4.**

*Comparison of the degree of achievement of strategic goals at universities implementing different strategic approaches*

Tested variables	Significance level
The degree of achievement of the statistical goals and the implemented strategic approach	0,000*

Source: Own study.

The obtained value of the significance level allows to state that the degree of achievement of strategic goals and the implemented strategic approach are related. In the light of the above, one can accept the hypothesis. Due to the fact that both variables were not nominal, we cannot talk about the direction of this relationship. Interesting, however, is the existence of significant differences.

When analyzing the data, it can be concluded that for the visionary strategy, the average level of achievement of goals, between 50 and 74%, at the level of 77%, and 13% of indications for the highest level from 75% to 100% and the level from 25% to 49%. The lowest number of indications in the visionary strategy was recorded by the lowest target achievement level of 6%. In the light of the obtained results, it can be concluded that the level of achievement of the objectives is high, which is a somewhat surprising result. It is worth recalling here that this type of strategic approach is based on anticipating and initiating changes in the environment.

When analyzing the results obtained for the classic strategic approach, it can be seen that 60% of respondents indicate the level of achievement of goals between 25% and 49%. A very high level of achievement of the goals was indicated by 15% of the respondents from 50 to 74%. Interestingly, none of the respondents indicated the achievement of goals at the level of 75 to 100%, which seems to be an extremely disturbing result. Considering the fact that the basis of this approach is to conduct a detailed strategic analysis and careful planning aimed at predicting changes in the environment, the obtained results confirm the well-known statements about the variability and unpredictability of the environment of contemporary universities.

When analyzing the results obtained for the shaping strategic approach, it can be concluded that the level of achieving goals in this approach is much lower than in the case of previous approaches. Interestingly, none of the respondents indicated the implementation of strategic goals at the level of up to 25% and from 25 to 49%. In turn, the highest level of implementation of strategic goals was indicated by 30% of respondents.

The adaptive strategic approach was indicated by the largest number of respondents. The lowest level of implementation of strategic goals was indicated by as many as 70% of respondents. On the other hand, only 12% of respondents indicated the average level of implementation of strategic goals and 3% each for the achievement of goals at the level of 50 to 74% and 75-100%. The obtained results should not be surprising, as there is no possibility of making predictions and impact on changes in the environment may result in the need to take reactive measures. The chart does not present the answers obtained in the case of the implementation of the renewing strategy, as this approach was not indicated by any respondent.

### **3.3. Conclusion**

The obtained research results lead to conclusions that will be the subject of further discussion. At the outset, it should be noted that among the studied sample, the largest number of universities is characterized by an adaptive 36% and a classic 31% strategic approach.

In turn, the visionary approach is characteristic of 20% of universities, and the shaping approach to the strategy - only 13%. It should also be emphasized that none of the respondents indicated in the study of renewing the strategic approach. Such differentiation in the approach to the implemented strategy gives the possibility of obtaining heterogeneous information and allows for more complex conclusions. However, it does not provide full representativeness within the specified subgroups. It should be emphasized, however, that the research results indicate the existence of some relationships that can be considered statistically significant. It allows to make some generalizations and to indicate the observed regularities.

One of the subjects of considerations in this study was the search for relationships between the level of operational risk and the degree of achievement of strategic goals. The results of the conducted research indicate the existence of correlation between the specified areas. It is indicated that along with the increase in the level of achievement of the assumed goals, the level of operational risk accompanying these activities decreases.

The second of the formulated hypotheses concerned the study of the relationship between the degree of achievement of strategic goals and the strategic approach. The conducted analyzes allow for the assumption of the hypothesis. The results showed that the visionary strategy is characterized by a high level of implementation of strategic goals. O seems a somewhat surprising result, considering the fact that this type of strategic approach is based on predicting and initiating changes in the environment. In the case of the classic approach to strategy, almost 75% of respondents indicated that the level of implementation of strategic goals is at the level of 25 to 74%. However, none of the respondents indicated the level of achievement of the goals at the level of 75 to 100%, which confirms the well-known statements about the variability and unpredictability of the environment of modern universities. The adaptive strategic approach was indicated by the largest number of respondents. On the other hand, the lowest level of implementation of strategic goals was indicated by as many as 70% of respondents. The obtained results should not be surprising, as the inability to predict and influence changes in the environment may result in the necessity to take reactive measures. When analyzing the results obtained for the shaping strategic approach, it can be concluded that the level of achieving goals in this approach is much lower than in the case of previous approaches.

As it has already been indicated, the conducted research did not confirm all the assumed relationships. There is a link between the implemented approach and the degree to which strategic goals are achieved, primarily pointing to the greater effectiveness of approaches based on the possibility of predicting changes in the environment. The conducted research also confirms the existence of a relationship between the degree of achieving strategic goals and the level of operational risk. The next direction of research will be further analysis of factors influencing the strategic management process at Polish universities.

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