

# RISK MANAGEMENT INTEGRATION IN CREATIVE INDUSTRIES

DOI: 10.33141/po.2020.04.01

Organization Review, No. 4(963), 2020, pp. 3-12

www.przegladorganizacji.pl

Jacek Woźniak

© Scientific Society of Organization and Management (TNOiK)

## Introduction

Risk management is today considered as a „standard” process in business activities in different sectors of the economy. This can also be observed in the so-called „creative activities” of people, which is a manifestation of the emergence and dynamic development of creative industries. In this type of economic activity, innovative processes are being carried out on a large scale to provide a specific value to precisely specified customers. To achieve this, entrepreneurs and innovators should pay attention to various aspects of risk management, e.g. shaping appropriate level of risk management integration.

The main objective of the study is to estimate the average level of risk management integration in innovative enterprises considering creative industries in Poland. Companies which are under investigation represent so-called creative services sub-sector.

In view of the above, the research problem has been specified as follows:

RQ1: What factors can determine the level of risk management integration in enterprises representing creative industries in Poland?

RQ2: What is the average level of risk management integration in this class of business units?

The subject of the study composes an area of risk management in business projects – from the perspective of an enterprise which implements a portfolio of projects (i.e. innovations). The CATI method was used as well as the statistical data analysis in the following empirical studies. The empirical research was conducted amongst enterprises representing creative services subsector marked with the following PKD numbering: 62.01.Z (software), 71.11.Z (architecture), 73.11.Z (advertising), and 74.10.Z (design). The research sample included 200 companies. In order to estimate the level of risk management integration, a composite indicator RMII (Risk Management Integration Index) was constructed – using the main factor analysis method.

The article consists of five essential parts addressing the following issues: (1) specification of basic circumstances of risk management integration, with a special attention paid to the notion of risk integration, as well as activities undertaken by enterprises in order to create the expected level of risk integration, (2) description of the research methodology, considering the frameworks of selecting units within the research sample, specification of the re-

search sample structure, as well as determining the Risk Management Integration Index formula, (3) description of the basic results of the empirical research – exposing the issues of interpreting the average value of RMII, and describing the profile of the average assessment pertaining to the level of risk management integration in the surveyed enterprises, (4) discussion, and (5) conclusions.

## Circumstances of risk management integration – literature review

Risk management takes on a variety of forms in today’s businesses, has different scope and level of complexity. Such a state of affairs arises not only from the perception of risk by the owners of companies and employees at different levels of management (Wojtysiak-Kotlarski, 2011, pp. 72–77; Stasiuk-Piekarska, Koliński, 2015, pp. 3–7). An important determinant here is also the potential of the company to manage risk, i.e. the analysis of the situational context (environment) of the company, identification, evaluation and assessment of risk factors, as well as risk treatment, etc. (Webster, 2010, p. 2 et seq.; Zawila-Niedzwiecki, 2014, p. 43 et seq.). Business opportunities and limitations of risk management in enterprises from creative industries (based on intangible assets, as well as potential and creativity) are mainly investigated in the resource aspects – financial and human (Bratnicka-Myśliwiec, 2016, pp. 12–14; Le-nart-Gansiniec, 2018, pp. 178–182).

The company’s risk management approach determines e.g. risk management integration. In the following study, the concept of risk management integration (RMI) is understood as the level of synergy, comprehensiveness and coherence of undertaken risk management activities (Bellini, 2017, pp. 12–13). Moreover, the risk management integration measure specifies the averaged level of the implemented activities related to the linking and exchanging various resources (human and information ones, etc.) in enterprises as a part of risk management in innovative processes (based on: Jamroz et al., 2009, pp. 260–262).

U. Krysiak and Z. Krysiak (2013, p. 50 et seq.) note that the integration of risk management is linked to the processes of staff inclusion at different managerial levels, and shaping relationships between short – and long-term planning (see also in: Wróblewski, 2015, p. 26 et seq.; ISO, 2018). Integration of risk management, especially



in the creative industries enterprises, requires attention to issues related to the exchange of risk information between managerial levels and between the enterprise and external entities (Fazlagić, 2012, p. 208 et seq.; Markiewicz, 2013, p. 54 et seq.). Activities of service providers involved in „creative” processes are particularly important in acquiring specific and useful information on the opportunities and risks in the nearest environment. The creative industries are dominated amongst micro and small entities that do not have the appropriate „capacities” to run a wide-ranged analysis of the environment in terms of risk identification and business continuity assurance (in innovative processes) (Lampel, Germain, 2016, p. 2329). Therefore, integration of risk management in the context of acquiring environmental knowledge is a key action. In the context of increasing the integration of risk management, the potential of clients has been noticed, as in the creative industries, a large-scale presumption is used (Pichlak, 2015, p. 87). Thus, customers are a valuable „link” to risk management and „integrate” business processes with risk management. It can be assumed that without the participation of clients, it is not possible to properly, effectively and efficiently shape the integration of risk management in innovative enterprises in creative industries.

The integration of risk management should be a result – and a foundation at the same time – of the culture of risk management (Krysiak, 2011, pp. 25–30). Enterprises of creative industries are „conscious” of their business and market potential, well „embedded” in the „realities” of the market they define. As a consequence, every action should be a result of planning processes (especially under conditions of limited funding and execution of innovations according to a specific customer’s order), as well as should be assigned by a specific value, translated into the level of usability of inertial processes perceived by customers. Therefore, the integration of risk management should relate to the inclusion of value-based management processes, both from the perspective of internal and external stakeholders (Di Maria et al., 2015, pp. 302–314). It can even be assumed that integration of risk management in creative industries is the result of evaluation and validation of values delivered to stakeholders. However, an important component here is the ability of innovative/creative process’ implementers to shape relationships with different classes of stakeholder.

Previous research in the field of risk management integration is somehow limited – considering both Polish and foreign sources of literature – and focuses primarily on the following issues:

- intra-organizational information integration – V. Riso and M. Castellini (2019), A. Posch (2020), as well as A. Cormier and Ch. Ng (2020) underline the role of the exchange of risk information between various employees in the organization and, in particular, the managers, but there is a lack of extensive integration of all levels of management in enterprises,
- information integration with external stakeholders – this issue is further addressed by C. Hu et al. (2015), and Z. Liu et al. (2015), indicating that it is appro-

priate (or even necessary) to obtain risk information from external actors, and to make enterprise’s own risk knowledge available to market operators; according to Z. Liu et al. (2015) a major role in this area is played by customers, and according to S.K. Wiryono et al. (2015) – formal institutions,

- financial integration of risk management activities – it is highlighted in particular by P. Siarka (2015), and H.A. Marfatia (2017), noting the appropriateness of budgeting for risk management and complementing it e.g. by a diversification of financial resources,
- integration of risk management in the framework of business models’ shaping – this issue is mainly highlighted by P. Landonia et al. (2020), and F. Li (2020), noting the need to integrate innovation processes with the structure of the company’s goals and financial management.

At this point, it is worth mentioning that a considerable amount of research in risk management in creative companies concerns the issue of risk complexity (see e.g. Kembaren et al., 2014; Klimczuk, 2014; Porfirio et al., 2016), which refers to the number of risk management actions and thematic areas covered by risk management, rather than their integration and coherence.

Companies representing creative industries enforce relatively strong emphasis on risk management as a standard internal process (Hennekam, Bennett, 2016). These companies are mainly focused on implementing basic risk management activities, such as risk management planning, risk factor identification, risk estimation and control, as well as risk repository statement (see: Woźniak, 2017). Unfortunately, companies of creative industries do not seek to integrate these activities and strengthen the degree of coherence between different risk management areas (Woźniak, 2019). These companies are focused on several key risk areas, but do not integrate them. As a rule, there is also no resource integration (e.g. employees, information and financial resources) in creative industries companies as part of the implementation of risk management processes (based on: Ratalewska, 2015).

On the basis of a worldwide literature analysis it can be assumed that the level of risk management integration is generally at a low level (Posch, 2020; Cormier, Ng, 2020), and there are no specific solutions and guidance for entrepreneurs in this regard. In addition, only selected areas of risk management integration are explored in the literature, and there is a lack of multifaceted (holistic) perspective. Therefore the presented paper fills the research gap by offering a coherent process of business management integration in creative industry companies.

## Research methodology

**F**or the research, the subject, time and spatial range were determined. The study involved shaping the level of integration of risk management processes in innovative enterprises in creative industries, and the general approach to risk management in these entities. In addi-

tion, the subject of the study was an area of risk in project management – from the perspective of enterprises which implement a portfolio of projects (i.e. innovations). The main objective of the study was to estimate the average level of risk management integration in innovative enterprises from creative industries in Poland – on the basis of enterprises in the creative services’ subsector (see the classification of DCMS).

In order to estimate the level of complexity of risk management and to understand the principles of risk management in this class of enterprises, it should first be noted that in project enterprises from the creative services subsector, mainly innovations with a low complexity and scope are executed (concern individual needs of customers), as well as that they relate primarily to changes in the scope of service processes and basic characteristics of services (as an innovation for customer). Innovations generally do not interfere significantly with the specific characteristics of the project enterprise’s operation.

In empirical studies, the CATI (Computer Assisted Telephone-Interviewing) technique was used, as well as statistical data analysis. The calculations were conducted using the IBM SPSS Statistics 24 software. The study was conducted during amongst enterprises with the following PKD numbering: 62.01.Z (software), 71.11.Z (architec-

ture), 73.11.Z (advertising), as well as 74.10.Z (design). The study includes mainly the project enterprises where innovative activities are dominant. The specificity of selecting entities to the research sample has been presented in Table 1, and the structure of the research sample in Table 2.

Table 1. The specificity of selecting units to the research sample - CATI study

Systematic random sampling (taking into account the criterion of the leading PKD business profile in the creative industries, including DCMS classification) in layers (layers are determined taking into account the size of enterprise by the number of employees) – reflecting the quantitative structure of enterprises in the population.
In the research sample (for each PKD class) the quantitative structure of enterprises is as follows: (1) micro enterprises (1–9 employees): about 96%, (2) small enterprises (10–49 employees), medium-sized enterprises (50–249 employees) and large enterprises (250 and more employees): about 4%.
In each PKD class, there is an equal number of enterprises, i.e. N=50. This has been primarily made in order to compare enterprises between all 4 classes of enterprises and identify fundamental differences and similarities in risk management in innovative processes. This internal structure of the research sample for the CATI research is acceptable taking into account the lack of full representability of the sample.

Source: own elaboration (N=200)

Table 2. Structure of the research sample - CATI study

Basic criteria for specification of the research sample	Leading business profile - PKD				Total
	62.01.Z	71.11.Z	73.11.Z	74.10.Z	
	%	%	%	%	%
<b>Age of enterprise</b>					
Less than 10 years („relatively young”)	13	7.5	6	9	35.5
10–15 years old („mature”)	3.5	9.5	10.5	7.5	31
More than 15 years („relatively old”)	8.5	8	8.5	8.5	33.5
<b>Level of average annual turnovers</b>					
Less than 40 million PLN	9.5	10.5	12	14.5	46.5
<40–100 million PLN)	6	3	5.5	3.5	18
<100–170 million PLN)	1	2	1.5	0	4.5
170 million PLN and more	0	0	0	1	1
Refusal to respond	8.5	9.5	6	6	30
<b>Scale of the business activity</b>					
Local (1 town/municipality/district)	6	5.5	5	11	27.5
Regional (1–8 voivodeships in Poland)	4.5	4	7	4	19.5
Domestic (9–16 voivodeships in Poland)	12.5	14	11	8	45.5
European (at least 1 country in Europe outside of Poland)	0.5	0.5	1	0	2
International (at least 1 country in the world outside Europe, including outside of Poland)	1.5	1	1	2	5.5
<b>Total</b>	<b>25</b>	<b>25</b>	<b>25</b>	<b>25</b>	<b>100</b>

Source: own elaboration (N=200)

The respondents who took part in the research were business owners or managers responsible for the risk management area, relationships with the environment, or innovations. Research included entities operating in the whole area of Poland (16 voivodeships). The research concerned the innovative activities of enterprises from January 2013 to December 2017. The empirical research was carried out from October 2018 to March 2019.

As a result of the empirical study, the composite index of risk management integration (RMII) was constructed – on the basis of the methodology contained in the OECD publication (2008) (see also Nardo et al., 2005; Williams et al., 2012; Hudrliková, 2013; Wyrozębski, 2016). The RMII formula has been included in Table 3. The RMII defines the average level of implementation of activities related to linking and exchange of various resources (human, information, etc.) in enterprises as part of risk management in innovative processes. This indicator was developed using a method of factor analysis (method of extraction of factors – main components method, rotation method – Varimax with Kaiser's normalisation) and based on specific factors of risk management integration (Table 4).

The RMII consists of three components:

1. C1: activities focused on cooperation mainly within the company (in the short term).
2. C2: activities aimed at resource integration (in the long term).
3. C3: activities aimed at cooperating with the environment.

The three components identified above were calculated using the factor analysis method, and are the sets of specific factors contained in Table 4. The allocation of factors to components was carried out on the basis of the matrix of rotated components and the eigenvalue of each new component). Component weights (Table 3) were designated as the quotient of the described percentage of variance after rotation for each component relative to the total described percentage of variance after rotation (for all variables).

The empirical study refers to the description of risk management integration using 15 specific factors (Table 4), which have been developed on the basis of the literature analysis:

- P. Siarka (2015), and H.A. Marfatia (2017) highlight the appropriateness of taking financial management

Table 3. Risk Management Integration Index formula

Risk Management Integration Index (RMII)	Formula
	$(0.4854 \cdot C1)/9 + (0.3222 \cdot C2)/4 + (0.1924 \cdot C3)/2 = (0.4854 \cdot (f1 + f2 + f3 + f4 + f5 + f6 + f7 + f8 + f9))/9 + (0.3222 \cdot (f10 + f11 + f12 + f13))/4 + (0.1924 \cdot (f14 + f15))/2$
Symbols – f1, f2, etc. means specific factors (see Table 5).	
The figures for calculating the RMII value have been obtained during the CATI research on a sample of 200 enterprises (each factor has been evaluated by a respondent on a 10-degree scale).	

Source: own elaboration

Table 4. Factors used for RMII design

No.	Component	Specific factors
f1	C1	Use of the team risk management planning (at least 3 persons)
f2		Use of team identification of risk factors (at least 3 persons)
f3		Involvement of different levels of management in managing the risks
f4		Use of collaborative analysis and assessment of risk factors (at least 3 persons)
f5		Involving of most workers in risk management (at least 50%)
f6		Use of a team response to risk factors (at least 3 persons)
f7		Exchange of risk information between management levels
f8		Connecting risk management objectives with operational objectives
f9		Exchange of risk information between the enterprise and environment
f10	C2	Management of human and intangible resources in the framework of risk management
f11		The use of financial optimization in risk management
f12		The use of value-based management in risk management
f13		Connecting risk management objectives with strategic objectives
f14	C3	Inclusion of external stakeholders in risk management
f15		Development of a risk management culture in the enterprise

Source: own elaboration

into account during risk management, as well as aligning financial management with the company's objectives and their integration,

- Y. Yu et al. (2015), A. Chaudhuri et al. (2018), and M. Munir et al. (2020) stress the need to increase the integration of internal processes within a company to support risk management,
- C. Hu et al. (2015), Z. Liu et al. (2015), and S.K. Wiryo et al. (2015) highlight the need to develop the relationships with external units/stakeholders (including institutions) in the field of risk management, as well as the necessity of risk management planning,
- V. Riso and M. Castellini (2019), A. Posch (2020), as well as A. Cormier and Ch. Ng (2020) stress the need to implement the exchange of information between employees and the information and decision-making integration of different levels and organizational cells into risk management, as well as the appropriateness of conducting control and information management processes for risk management.
- Y.-Y. Chang and M.-H. Chen (2020) draw attention to the need for integrated management of company's resources, as well as the need to carry out an environmental analysis for the risk management,
- M. Bontje and S. Musterd (2009), Ch. Öberg (2013), as well as A. Bujor and S. Avasilcai (2016) stress the need to apply the development of workers' competences (including the field of risk management), as well as the development of social capital,
- P. Landonia et al. (2020), and F. Li (2020) expose the issue of integrating activities in the field of business models' shaping in innovative enterprises, taking into account the requirements of risk management

These factors relate mainly to shaping relationships between entities responsible for risk management with internal and external stakeholders, linking different levels of management, improving the risk management culture, as well as combining different time horizons in decision-making processes (Table 5). It is worth noting that the indicated risk management integration factors do not exhaust the complexity and scope of this problem. However, various factors in a comprehensive and fair manner relate to basic actions that determine the level of risk management integration and create a relatively coherent and complete set of factors. An additional detailing of the factors indicated in Table 5 could result in an excessive multiplication and the „blurment” of the further analyses.

The RMII ws also used to divide the surveyed enterprises ( $N=200$ ) into clusters according to its average value. For this purpose, the  $k$ -means analysis (including variables' standardization) was applied. The study used the Hierarchical Cluster Analysis – agglomerative method (tree diagram, Ward method, Euclidean distance) and has distinguished 3 clusters of enterprises (based on: Hartigan, Wong, 1979; Pietrzykowski, Kobus, 2006; StatSoft, 2006; Kajstura, 2019). Because the measurement of three components of RMII was carried out on an ordinal scale, the Friedman test was used to assess the level of risk management integration for each component – the assessment of the average value of RMII is not sufficient to assess the importance of individual components. The highest level of integration relates to the area of activity focused on cooperation mainly within the company. A detailed analysis of the RMII is contained in further parts of the article.

### Results of the empirical research

Considering the whole research sample ( $N=200$ ), RMII has an average value of 1.33 – which is very low on the adopted 10-degree scale. Therefore, it can be assumed that surveyed enterprises are characterized by a low integration of risk management (Figure 1), despite the fact that the respondents are generally aware of the importance of various actions undertaken in the framework of risk management. Considering average values of risk management integration in each of 4 classes of service activities, it can be seen that assessments remain at a similar level – from 3.08 to 3.55. None of the indicated mean values exceed a half of the scale, i.e. the value of 5.5. It is worth noting, however, that efficient and effective risk management in innovative creative industries does not have to be at a high level of integration.

Figure 1 presents the similarity with reference to the values of average risk management integration assessments. Detailed profiles have been presented in Figure 2. In this case, it can be seen that, in principle, respondents in all 4 classes of service activities assessed the scope of specific actions that determine the level of risk management integration in a similar way. There are no significant (distinct) differences between all 5 profiles. It can therefore be assumed that the profile for the whole research sample is, in some generalisation, appropriate for all classes of surveyed enterprises.

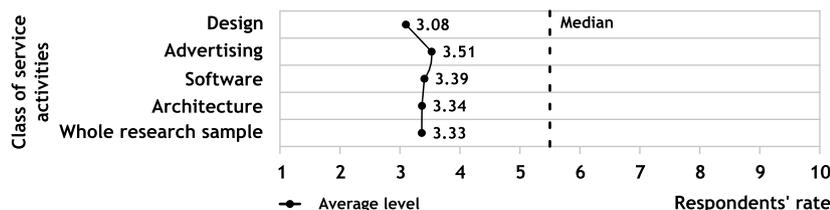


Figure 1. The simple profile of the average assessment pertaining to the level of risk management integration in the surveyed enterprises - taking into account 4 classes of creative service activities

Source: own elaboration ( $N=200$ ; respondents' rate)

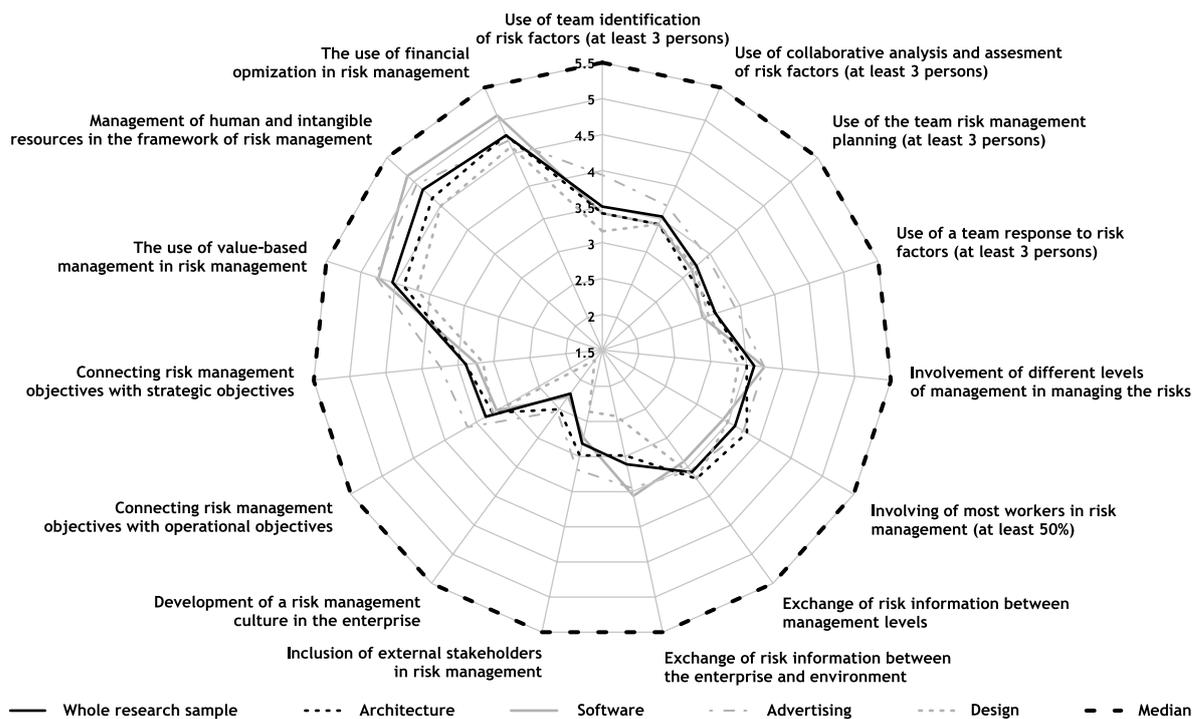


Figure 2. Detailed profiles of the average assessment pertaining to the factors determining risk management integration level in the surveyed enterprises - taking into account 4 classes of creative service activities  
 Source: own elaboration (N=200; respondents' rate)

Table 5. The crucial factors determining the level of risk management integration in surveyed enterprises - CATI research

Factors determining the level of risk management integration	Basic descriptive statistics			
	Mean	Standard deviation	Coefficient of variation	Skew
Management of human and intangible re-sources in the framework of risk management	4.82	1.435	30%	0.764
The use of financial optimization in risk man-agement	4.77	1.442	30%	0.804
The use of value-based management in risk management	4.54	1.483	33%	0.790
Involving most workers in risk management (at least 50%)	3.60	1.477	41%	0.970
Involvement of different levels of management in managing the risks	3.59	1.629	45%	1.295
Exchange of risk information between man-agement levels	3.58	1.772	49%	0.931
Use of collaborative analysis and assessment of risk factors (at least 3 persons)	3.51	1.641	47%	0.994
Use of team identification of risk factors (at least 3 persons)	3.48	1.771	51%	1.054

Source: own elaboration (N=200; respondents' rate)

Knowing the detailed profiles of the average assessment pertaining to the factors determining risk management integration level in the 4 classes of surveyed enterprises, an appropriate activity is to identify the factors that may affect the level of risk management integration in the strongest way. In the surveyed enterprises, these factors are i.e.: management of human and intangible resources in the framework of risk management, the use of financial optimisation in risk management, as well as use of value-based management in risk management (Table 5).

Focusing on the clusters of companies developed using the average values of risk management integration level (Table 6), it is worth noting that the most numerous cluster contains enterprises described by the low risk management integration (100 units). A very numerous cluster is also the one dedicated to enterprises with a moderate level of risk management integration (93 units). The fewest enterprises (7) are described by a high-risk management integration level. This is a disadvantage to the development of risk management processes, notably taking into

Table 6. Clusters of surveyed enterprises due to the average value of RMII

Name of cluster		High integration of risk management	Moderate integration of risk management	Low integration of risk management
Abundance of clusters		7	93	100
Characteristics of enterprises in the cluster (dominant attributes)	Size	Micro enterprises		
	Age	„mature”	„relatively old”	„relatively young”
	Level of average annual turnovers	10–40 million PLN	0–10 million PLN	
	Scale of operation	regional	domestic	
	Impact of risk management on the enterprise	high	moderate	Moderate low
	Risk perception	source of oppor-tunities	source of opportunities and threats	

Source: own elaboration (N=200)

account the need for different units to cooperate in creating value for stakeholders, and the existence of diversified and important risk factors for innovative activities.

### Discussion

The integration of risk management in the surveyed enterprises from the creative services subsector is at a low level. This integration is relatively higher in entities that operate in the market for more than 10 years and are running creative activities in a relatively narrow geographical area. It is also interesting that the integration of risk management is greater in companies that perceive risks mainly as a source of opportunities, not just threats. Risk perception can be the main reason why the surveyed enterprises do not seek to increase the level of risk management integration. By regarding risk management primarily in terms of losses, creative entrepreneurs are inclined to take „defensive” actions (which generate costs), and thus have no incentive to concentrate on the development of a risk management „system”.

The developed risk management integration profiles (Figure 2) also highlight an important issue – the least used and thus the least important action in the respondents’ opinion is shaping and development of the risk management culture. This is an interesting observation, as foreign researchers do not raise the issue of the role and importance of shaping the integration of risk management when developing the risk management culture. In principle, the risk management culture is depreciated in the context of risk management in creative industries. Today, especially in economic activities based on the creativity of people, as well as the development of intangible capital, it is important to shape and consolidate an appropriate „organisational ecosystem” for the purpose of creating values for stakeholders in innovative processes. The results obtained in the following empirical study indicate that some of the key factors in shaping risk management integration are: management of human and intangible resources in the framework of risk management, and involving most workers in risk manage-

ment (at least 50%). These results coincide with the observations and studies conducted by V. Riso and M. Castellini (2019), A. Posch (2020), as well as A. Cormier and Ch. Ng (2020). Nevertheless, the analysed survey has noted a fundamental difference in relation to other (international) studies, and demonstrated that a great importance in shaping the integration of risk management in Polish companies possess: the involvement of different levels of management in managing the risks, as well as the exchange of risk information between management levels.

Thus, in the Polish creative industries, the integration of different managerial levels and employee groups is taken into account concerning risk management. The results of the study indicate that an important factor in the integration of risk management is the financial optimisation in risk management. This is consistent with the results presented by P. Siarka (2015), and H.A. Marfatia (2017), highlighting the appropriateness of budgeting for risk management and complementing it e.g. by a diversification of sources of financial funds. However, the literature, identifies lack of the role and importance of the factor connected with the use of value-based management in risk management. The conducted study discovered a relatively small importance of including external stakeholders in shaping the integration of risk management. This research result is inconsistent with the results obtained e.g. by C. Hu et al. (2015), and Z. Liu et al. (2015).

In conclusion, it can be assumed that the obtained results are relatively consistent with the results presented by other researchers. Nevertheless, in Polish conditions, factors relating to the information and decision-making processes in risk management (an integral component of which is the integration of risk management) are particularly important.

### Conclusions

Summing up, the results of this study proved that the integration of risk management in innovative service enterprises from creative industries is at a low level. It



is also important that this situation occurs in each of the 4 surveyed classes of service activities. It can be assumed that the companies use a specific „risk management optimisation”, connected with taking actions that are genuinely beneficial. Thus, there is no observed „overgrowth” of risk management structures and hence the integration of risk management. Moreover, often in this class of creative enterprises the risk management is implemented in accordance with the principle of „need somehow to deal with business” – which does not mean that the practical usability of this approach is low. On the contrary, a situation, in which companies belonging to creative industries and still regarded in the Polish economy as developing ones specify their own risk management procedures „from scratch” and shape the integration of risk management, is a good practice approach. It points out that these companies are not looking for „standard”/„global” solutions, but develop their own, specific, and optimal approach to shape the level of risk management integration corresponding to their needs.

The study can serve as a basis for specifying practical implications for risk management in companies of creative industries. This category of enterprises should place greater emphasis on increasing the integration of risk management processes, as the sole use of selected elements of the risk management methodology may not be sufficient to effectively improve activities in innovative companies. Particular attention is paid in the context of increasing the level of risk management integration to include external units in risk management processes, as well as ensure the continuous development of the risk management culture, and the integration of different levels of management within risk management processes. Therefore, companies, in order to increase the integration of risk management, should pay attention to the potential of both internal and external stakeholders.

The research limitations of the following study are also presented. First of all, the sample is relatively small – so this study can be regarded as a pilot study and merely a substantive and methodological basis for further studies. Therefore, the results obtained cannot be extended to the whole population, neither can they constitute a basis for constructing so-called „best practices” in shaping the expected level of risk management integration. It is also worth remembering that creative industries are a diverse (subjectively, thematically, and spatially) set of enterprises. These are dynamic, rapidly changing industries – so it is difficult to specify „best practices” for shaping risk management integration. Furthermore, only respondents’ opinions were examined, which may have had an impact on distorting the actual state of the situation (respondents may have shown a tendency to inflate responses in favour of a good image of the company). The study also focused solely on selected aspects of risk management integration, mainly due to research costs. Thus, the results’ analysis may seem selective and substantively narrow.

In conclusion, an attempt can be made to outline further research recommendations in the area of shaping the level of risk management integration in companies from creative industries in Poland. The leading direction of re-

search should be identifying and analysing the basic barriers associated with shaping risk management integration of. An important research issue could also include the identification of cause and effect relationships between individual activities (processes) determining the level of risk management integration (on the basis of a network of couplings).

---

**Jacek Woźniak, Ph.D.**

**Military University of Technology in Warsaw**  
**Faculty of Security, Logistics and Management**  
**ORCID: 0000-0001-7592-0109**  
**e-mail: jacekj.wozniak@wat.edu.pl**

## References

- [1] Bellini T. (2017), *Stress Testing and Risk Integration in Banks*, Academic Press, London.
- [2] Bontje M., Musterd S. (2009), *Creative Industries, Creative Class and Competitiveness: Expert Opinions Critically Appraised*, „Geoforum”, Vol. 40, pp. 843–852.
- [3] Bratnicka-Myśliwiec K. (2016), *Creativity and Performance. Testing Ambidextrous Hypotheses in the Context of Polish SMEs*, „Management Forum”, Vol. 4, No. 3, pp. 9–15.
- [4] Bujor A., Avasilcai S. (2016), *The Creative Entrepreneur: a Framework of Analysis*, „Procedia – Social and Behavioral Sciences”, Vol. 221, pp. 21–28.
- [5] Chang Y.-Y., Chen M.-H. (2020), *Creative Entrepreneurs’ Creativity, Opportunity Recognition, and Career Success: Is Resource Availability a Double-edged Sword?* „European Management Journal” (in press).
- [6] Chaudhuri A. et al. (2018), *Supply Chain Integration, Risk Management and Manufacturing Flexibility*, „International Journal of Operations & Production Management”, Vol. 38, No. 3, pp. 690–712.
- [7] Cormier A., Ng Ch. (2020), *Integrating Cybersecurity in Hazard and Risk Analyses*, „Journal of Loss Prevention in the Process Industries”, Vol. 64, pp. 1–5.
- [8] DCMS (2001), *Creative Industries Mapping Document: Background*, London.
- [9] Di Maria E. et al. (2015), *User Innovation in Creative Industries*, [in:] C. Jones, M. Lorenzen, J. Sapsed (eds.), *The Oxford Handbook of Creative Industries*, Oxford University Press, Oxford, pp. 301–319.
- [10] Fazlagić J. (2012), *Otwarte innowacje i crowdsourcing a innowacyjność w sektorze usług*, Zeszyty Naukowe Uniwersytetu Ekonomicznego w Poznaniu, Nr 229, s. 207–218.
- [11] Hartigan J.A., Wong M.A. (1979), *A K-Means Clustering Algorithm*, „Applied Statistics”, Vol. 28, No. 1, pp. 100–108.
- [12] Hennekam S., Bennett D. (2016), *Self-Management of Work in the Creative Industries in the Netherlands*, „International Journal of Arts Management”, Vol. 19, No. 1, pp. 31–41.
- [13] Hu C. et al. (2015), *Synthetic CDO Pricing: The Perspective of Risk Integration*, „Applied Economics”, Vol. 47, No. 15, pp. 1574–1587.
- [14] Hudrliková L. (2013), *Composite Indicators as a Useful Tool for International Comparison: The Europe 2020 Example*, „Prague Economic Papers”, No. 4, pp. 459–473.

- [15] ISO (2018), *ISO 31000:2018: Risk Management – Guidelines*, International Organization for Standardization, Geneva.
- [16] Jamroz K. i in. (2009), *Integracja metod zarządzania ryzykiem w transporcie*, [w:] R. Krystek (red.), *Zintegrowany system bezpieczeństwa transportu: Uwarunkowania rozwoju integracji systemów bezpieczeństwa transportu, T. II*, WKiŁ, Warszawa, s. 257–316.
- [17] Kajstura A. (2019), *Metoda k-średnich*, <https://www.statystyka.az.pl/analiza-skupien/metoda-k-srednich.php>, data dostępu: 21.09.2018 r.
- [18] Kembaren Ph. et al. (2014), *Design Driven Innovation Practices in Design-preneur Led Creative Industry*, „Journal of Technology Management & Innovation”, Vol. 9, No. 3, pp. 91–105.
- [19] Klimczuk A. (2014), *Barriers to the Development of Creative Industries in Culturally Diverse Region*, „Coactivity: Philosophy, Communication”, Vol. 22, No. 2, pp. 145–152.
- [20] Krysiak U., Krysiak Z. (2013), *Koncepcja zrównoważonego ryzyka przedsiębiorstwa i banku*, „Kwartalnik Nauk o Przedsiębiorstwie”, Nr 4, s. 46–56.
- [21] Krysiak Z. (2011), *Silna kultura zarządzania ryzykiem jako cecha nowoczesnych organizacji*, „e-mentor”, Nr 2, s. 24–32.
- [22] Lampel J., Germain O. (2016), *Creative Industries as Hubs of New Organizational and Business Practices*, „Journal of Business Research”, Vol. 69, No. 7, pp. 2327–2333.
- [23] Landonia P. et al. (2020), *Business Model Innovation in Cultural and Creative Industries: Insights from Three Leading Mobile Gaming Firms*, „Technovation”, Vol. 92–93, p. 102084.
- [24] Lenart-Gansiniec R. (2018), *Kompetencje kreatywne społeczności wirtualnych w crowdsourcingu*, „Studia i Prace Kolegium Zarządzania i Finansów SGH”, Nr 161, s. 175–186.
- [25] Li F. (2020), *The Digital Transformation of Business Models in the Creative Industries: A Holistic Framework and Emerging Trends*, „Technovation”, Vol. 92–93, p. 102012.
- [26] Liu Z. et al. (2015), *Incentive Mechanism for Knowledge Sharing in e-Commerce Service Supply Chain: Complementarity, Integration and Risk Attitude*, „Journal of Electronic Commerce Research”, Vol. 16, No. 3, pp. 175–193.
- [27] Marfatia H.A. (2017), *A Fresh Look at Integration of Risks in the International Stock Markets: A Wavelet Approach*, „Review of Financial Economics”, No. 34, pp. 33–49.
- [28] Markiewicz J. (2013), *Kreatywne partnerstwa w kontekście rozwoju przemysłów kreatywnych w Szczecinie*, Zeszyty Naukowe Uniwersytetu Szczecińskiego. Ekonomiczne Problemy Usług, Nr 107, s. 51–65.
- [29] Munir M. et al. (2020), *Supply Chain Risk Management and Operational Performance: The Enabling Role of Supply Chain Integration*, „International Journal of Production Economics”, Vol. 227, pp. 1–14.
- [30] Nardo M. et al. (2005), *Tools for Composite Indicators*, European Commission, Brussels.
- [31] Öberg Ch. (2013), *Competence Integration in Creative Processes*, „Industrial Marketing Management”, Vol. 42, pp. 113–124.
- [32] OECD (2008), *Handbook on Constructing Composite Indicators. Methodology and User Guide*, Brussels.
- [33] Pichlak M. (2015), *Projektowanie modeli biznesowych w branżach twórczych*, Zeszyty Naukowe Politechniki Śląskiej, Seria: Organizacja i Zarządzanie, Nr 86, s. 83–91.
- [34] Pietrzykowski R., Kobus P. (2006), *Zastosowanie modyfikacji metody k-średnich w analizie portfelowej*, „Ekonomika i Organizacja Gospodarki Żywnościowej”, Nr 60, s. 301–308.
- [35] Porfirio J.A. et al. (2016), *Entrepreneurship in Different Contexts in Cultural and Creative Industries*, „Journal of Business Research”, Vol. 69, pp. 1–7.
- [36] Posch A. (2020), *Integrating Risk into Control System Design: The Complementarity between Risk-focused Results Controls and Risk-focused Information Sharing*, „Accounting, Organizations and Society” (in press).
- [37] Ratalewska M. (2015), *Uwarunkowania rozwoju sektorów kreatywnych*, Prace Naukowe Uniwersytetu Ekonomicznego we Wrocławiu: Ekonomia, Nr 401, s. 421–430.
- [38] Riso V., Castellini M. (2019), *Poor Integration between Operational Risk Management Activities and Internal Control System in the Municipalities: An analysis of the Italian LEGislative Framework*, „Economia Aziendale Online 2000 Web”, Vol. 10, No. 1, pp. 149–158.
- [39] Siarka P. (2015), *System Informacyjny Banku – Integracja Procesów Zarządzania Ryzykiem Kredytowym*, „Business Informatics”, Nr 1(35), s. 53–69.
- [40] Stasiuk-Piekarska A.K., Koliński A. (2015), *Analiza ryzyka operacyjnego w kontekście efektywności procesu produkcji*, „Gospodarka Materiałowa i Logistyka”, Nr 1, s. 2–8.
- [41] StatSoft (2006), *Elektroniczny Podręcznik Statystyki*, <http://www.statsoft.pl/textbook/stathome.html>, data dostępu: 15.04.2018 r.
- [42] Webster R.M. (2010), *Management of Risk: Guidance for Practitioners*, Stationery Office.
- [43] Williams B. et al. (2012), *Exploratory Factor Analysis: A Five-step Guide for Novices*, „Australian Journal of Paramedicine”, Vol. 8, No. 3, pp. 1–13.
- [44] Wiryono S.K. et al. (2015), *Risk Mapping on Dynamics Creative Industry: Case Study at Bandung City, Indonesia*, „Procedia – Social and Behavioral Sciences”, Vol. 169, pp. 125–130.
- [45] Wojtyśiak-Kotlarski M. (2011), *Audyt wewnętrzny a proces zarządzania ryzykiem*, „Kwartalnik Nauk o Przedsiębiorstwie”, Nr 3, s. 72–77.
- [46] Woźniak J. (2017), *Zarządzanie ryzykiem w przedsiębiorstwach projektowych w sektorach kreatywnych. Część 1: Identyfikacja czynników ryzyka*, Zeszyty Naukowe Uniwersytetu Przyrodniczo-Humanistycznego w Siedlcach, Seria: Administracja i Zarządzanie, Vol. 114, Nr 41, s. 225–235.
- [47] Woźniak J. (2019), *Zarządzanie ryzykiem w sektorach kreatywnych*, CeDeWu, Warszawa.
- [48] Wróblewski D. (red.), (2015), *Zarządzanie ryzykiem. Przegląd wybranych metodyk*, Centrum Naukowo-Badawcze Ochrony Przeciwpowarowej, Państwowy Instytut Badawczy, Józefów k. Otwocka.
- [49] Wyrozębski P. (2016), *Ryzyko i niepewność w procesie planowania projektów*, [w:] M. Trocki, E. Bukłaha (red.), *Zarządzanie projektami – wyzwania i wyniki badań*, Szkoła Główna Handlowa w Warszawie, Warszawa, s. 71–100.
- [50] Yu Y. et al. (2015), *A Conceptual Model of Supply Chain Risk Mitigation: The Role of Supply Chain Integration and Organizational Risk Propensity*, „Journal of Coastal Research”, No. 73, pp. 95–98.
- [51] Zawila-Niedźwiecki J. (2014), *Operational Risk as a Problematic Traid: Risk Resource, Security, Business Continuity*, edu-Libri, Kraków-Warszawa.



## **Integracja zarządzania ryzykiem w sektorach kreatywnych**

---

### **Streszczenie**

Zasadniczym celem badania jest oszacowanie średniego poziomu integracji zarządzania ryzykiem w przedsiębiorstwach innowacyjnych z sektorów kreatywnych w Polsce – na podstawie przedsiębiorstw z tzw. podsektora usług kreatywnych. Przedmiotem badania był obszar tzw. ryzyka realizacji projektu – z perspektywy przedsiębiorstwa, które realizuje portfel projektów (tj. innowacji). W badaniach empirycznych zastosowano technikę CATI oraz statystyczną analizę danych. Do badań kwalifikowane były przedsiębiorstwa należące do podsektora usług kreatywnych oznaczone następującą numeracją PKD: 62.01.Z (działalność związana z oprogramowaniem), 71.11.Z (działalność w zakresie architektury), 73.11.Z (działalność agencji reklamowych) oraz 74.10.Z (działalność w zakresie specjalistycznego pro-

jektowania). Próba badawcza liczyła 200 przedsiębiorstw. W celu oszacowania poziomu integracji zarządzania ryzykiem został skonstruowany wskaźnik kompozytowy WIZR (wskaźnik integracji zarządzania ryzykiem) z wykorzystaniem metody analizy czynnikowej. Badania wykazały, że przedsiębiorstwa odznaczają się niskim poziomem integracji zarządzania ryzykiem – pomimo tego, że respondenci są z reguły świadomi znaczenia poszczególnych działań podejmowanych w ramach zarządzania ryzykiem. Niemniej jednak można przyjąć, że badane przedsiębiorstwa stosują swoistą „optymalizację zarządzania ryzykiem”, sprowadzającą się do podejmowania działań rzeczywiście przynoszących korzyści. Tym samym nie jest obserwowany „przerost” struktur zarządzania ryzykiem i integracji zarządzania ryzykiem.

### **Słowa kluczowe**

integracja zarządzania ryzykiem, sektory kreatywne, usługi kreatywne, procesy innowacyjne

---