

Sobocka-Szczapa, Halina

Article

Recruitment of employees: Assumptions of the risk model

Risks

Provided in Cooperation with:

MDPI – Multidisciplinary Digital Publishing Institute, Basel

Suggested Citation: Sobocka-Szczapa, Halina (2021) : Recruitment of employees: Assumptions of the risk model, *Risks*, ISSN 2227-9091, MDPI, Basel, Vol. 9, Iss. 3, pp. 1-15, <https://doi.org/10.3390/risks9030055>

This Version is available at:

<https://hdl.handle.net/10419/258144>

Standard-Nutzungsbedingungen:

Die Dokumente auf EconStor dürfen zu eigenen wissenschaftlichen Zwecken und zum Privatgebrauch gespeichert und kopiert werden.

Sie dürfen die Dokumente nicht für öffentliche oder kommerzielle Zwecke vervielfältigen, öffentlich ausstellen, öffentlich zugänglich machen, vertreiben oder anderweitig nutzen.

Sofern die Verfasser die Dokumente unter Open-Content-Lizenzen (insbesondere CC-Lizenzen) zur Verfügung gestellt haben sollten, gelten abweichend von diesen Nutzungsbedingungen die in der dort genannten Lizenz gewährten Nutzungsrechte.

Terms of use:

Documents in EconStor may be saved and copied for your personal and scholarly purposes.

You are not to copy documents for public or commercial purposes, to exhibit the documents publicly, to make them publicly available on the internet, or to distribute or otherwise use the documents in public.

If the documents have been made available under an Open Content Licence (especially Creative Commons Licences), you may exercise further usage rights as specified in the indicated licence.



<https://creativecommons.org/licenses/by/4.0/>

Article

Recruitment of Employees—Assumptions of the Risk Model

Halina Sobocka-Szczapa 

Department of Economics, Social Academy of Sciences in Łódź, Social Academy of Sciences, ul. Sienkiewicza 9, 90-113 Łódź, Poland; hszczapa@san.edu.pl

Abstract: The aim of this article is to present the risk model premises related to worker recruitment. Recruitment affects the final selection of workers, whose activities contribute to corporate competitive advantages. Hiring unfavorable workers can influence the results produced by an organization. This risk mostly affects situations when searching for workers via the external labor market, although it can also affect internal recruitment. Therefore, it is necessary to attempt to identify recruitment risk determinants and classify their meaning in such processes. Model formation has both theoretical and intuitive characteristics. Model dependencies and their characteristics are identified in this paper. We attempted to assess the usability of the risk model for economic praxis. The analyses and results provide a model identification of dependencies between the factors determining a workers recruitment process and the risk which is caused by this process (employing inadequate workers who do not meet the employer's expectations). The identification of worker recruitment process determinants should allow for practically reducing the risk of employing an inadequate worker and contribute to the reduction in unfavorable recruitment processes. The added value of this publication is the complex identification of recruitment process risk determinants and dependency formulations in a model form.



Citation: Sobocka-Szczapa, Halina. 2021. Recruitment of Employees—Assumptions of the Risk Model. *Risks* 9: 55. <https://doi.org/10.3390/risks9030055>

Academic Editor:
Zbyslaw Dobrowolski

Received: 5 February 2021
Accepted: 8 March 2021
Published: 18 March 2021

Publisher's Note: MDPI stays neutral with regard to jurisdictional claims in published maps and institutional affiliations.



Copyright: © 2021 by the author. Licensee MDPI, Basel, Switzerland. This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution (CC BY) license (<https://creativecommons.org/licenses/by/4.0/>).

Keywords: workers recruitment; recruitment sources; dependencies model; risk in recruitment; determinants

1. Introduction

Presently functioning modern organizations undoubtedly need employees whose competences—properly used in task performance processes—should form the basic premise of the employee recruitment process. The determinants of managerial staff's behaviors mainly direct the development of economies towards applying the most modern technologies. Systemic interests have increased among employers in terms of acquiring workers with the highest qualifications and this also results from the fact that the knowledge, skills and creativity of such employees collectively represent a key organizational resource which affects the organization's innovation and competitive advantage. Consequently, in a modern economy, material and financial resources management has retained smaller and smaller significance, while intangible assets management is becoming more and more important.

The above-mentioned conditions and a dynamically changing situation in the labor market brings about the necessity to pay attention to the procedures that enable the acquisition of adequate employees for the offered positions. In particular, procedures related to recruitment (the risk related to human resource management appears in the international literature both in the form of theoretical considerations and conducted research (Anaraki-Ardakani and Ganjalim 2014; Nickson 2001; Meyer et al. 2011; Shriram 2017, p. 3) The risk related to recruitment has been determined to be an important element of the human resource management process) should not be done by trial and error, but instead should be a coherent action system oriented towards achieving the main objective, which is usually hiring the person with the most appropriate qualifications and personality, who can fit into the organization (Borowski 2016).

Based on these assumptions, the aim of the study is to systematize the factors that affect the risk of unsuccessful recruitment and to formulate assumptions for the risk model. The research hypothesis of the conducted considerations is the positive or negative verification of the opinion of the small importance of a comprehensive diagnosis of the reasons for unsuccessful recruitment of an employee in order to reduce the importance of associated risk factors.

2. Research Method

In order to implement the indicated assumptions, we mainly employed the method of critical analysis of the literature on the subject and intuitive analyses that came from the research experience related to participation in many studies that were financed by national sources and the European Union (i.e., Human Resources Development—Training and Business Counseling for Persons Threatened by Unemployment, Podkarpackie Voivodship, Poland, project financed by the PHARE fund, PHARE Project EuropeAid/112592/D/SV/PL; determinants and implications of self-employment in the Polish economy, Project 1 H02C 074 28 financed by the Scientific Research Committee; Partnership on For Development Time to work—work on time, EQUAL IW; regional system of labor market coordination in the Mazowieckie Voivodeship Work—Employment—Training, project co-financed by the European Social Fund under the Integrated Operational Program 2004–2006 (Priority 2—Strengthening the Development of Human Resources in Regions); analysis and the processes taking place on the Polish labor market and in the field of social integration in the context of the economic policy pursued, development of an integrated forecasting and information system enabling employment forecasting, source of financing: ESF project). This article reviews the literature on the subject of using risk models for recruitment purposes, while also analyzing changes in the selected category of concepts. The choice of sources for analysis was subordinated to the purpose of the study. The sources of the analysis are scientific papers (individual and collective), which were created in academic centers and other institutions which comply with scientific standards, as well as articles in various professional journals. The study also used foreign-language literature as well as materials from websites. The analysis was carried out in two stages: the first involved the formulation and justification of the purpose, as well as the research hypothesis; it also involved distinguishing the basic conceptual categories and establishing the definitions that were applicable in the research procedure. Finally, the content of individual sources was interpreted according to the assumed goals and the research problem posed.

In the article, for the purposes of the research, the following research questions were formulated:

1. What is the recruitment process characterized by?
2. In what areas can one look for threats undermining the recruitment of employees that are adequate for the needs of the organization?
3. What are the most important threats that can be identified in the recruitment process?

3. Recruitment of Employees—Concept, Risk, Choice of Procedures

There are many definitions of recruitment in the source literature and for this reason, one can point out their various aspects (a broader review of the definition of recruitment than the one provided in this study can be found in the article [Sobocka-Szczapa \(2018\)](#)). This recruitment can be a process in which a company encourages properly educated people to start working for them in a certain position and encourages them to apply for said position ([Maniak 2001](#)). It can also represent the acquisition of workers who are talented, motivated, healthy and knowledgeable by the organization ([Szałkowski 2006](#)). Undoubtedly, the need to hire new employees is forced by the necessity to shape the human resources of the organization ([Adamiec and Kozusznik 2000](#)).

The visible differences in the selected definitions of recruitment allow us to state with great certainty that, in organizations, we deal with a variety of premises that influence the initiation of this process. It seems, however, that the factor with the greatest significance is

the necessity to adapt the potential of an organization in the area of human resources to changing conditions on the market and the possibility to reach the goal, i.e., the maximum profitability of the company in given circumstances. We should stress, however, that in most cases, enterprises cover all conditions indicated in the definitions.

The variety of recruitment definitions contributes to the fact that various definitions can be applied, which significantly influences the risk of employing an inadequate worker. Let us have a look, then, at the dangers resulting from the very definition of the analyzed process.

The first definition clearly stresses that the recruitment processes are initiated by encouraging potential employees to work on the offered position. The implemented procedures should then clearly and precisely formulate incentives which are in the offer. In some cases, something that from the employer's perspective can be an incentive, in fact, does not make sense for a candidate (e.g., bonuses that are not suitable for the future employee, an unattractive remuneration level). The risk in such case can be largely reduced by wide extensive consultation with employees, mostly with the direct manager of a potential employee. We can also use readymade offers on the Internet.

The second recruitment definition to eliminate risk is related to worker acquisition in the process of recruiting. The procedures undertaken can use the method of analyzing documents submitted by the candidate. The dangers in this case result from unreliable information in the documents and from incorrect interpretation of the information presented therein. In order to reduce the significance of threats to the selection of the right employee, the procedures in the recruitment process should be extended with additional documents, for example, verifying the employee's health condition or directly confirming opinions contained in the references.

The last of the cited methods of defining the recruitment of employees pays attention to the issues related to correlating the needs of the employing organization with their mission, vision and objective. Undoubtedly, this is the widest way of defining this process, but at the same time it carries the biggest risk of employing the wrong person. The basis of this risk is, first of all, the dominance of recruitment processes by the immediate necessity to employ a new worker, which can lead to superficial document verification and result in acceptance, employment, and, consequently, the lack of expected effect in carrying out entrusted tasks. Unfavorable unsuccessful employment can also affect the situation of the organization on the labor market, particularly if it makes it impossible to select an employee carefully and to verify this selection in many dimensions, which does not allow one to use the individual fully in a company. In this situation, it is important to launch recruitment supporting procedures, such as the thorough preparation of a job description card and a personal characteristics profile card (Pocztowski 2003). This allows an organization to avoid employing an employee who is useful for an organization only to a limited degree. It should be stressed, that a proper drawing up of these documents can significantly reduce the risk of unsuccessful worker acquisition in the case of all the above-defined ways of recruitment interpretation.

Risks, which appear in worker recruitment processes, result from their types and acquisition sources, as described in the literature. Practically, we distinguish two types of recruitment, i.e., general recruitment and segment recruitment, these result from recruitment targeting specific employee categories, leading to the application of very simple or more complicated procedures. Procedure simplification, in the case of recruiting lower-level employees (production, line), can influence the recruiters' concentration only on hard competences, which enables the workers to carry out entrusted tasks. In this situation, omission of an important issue of personality competences can limit the relevance of the decisions. In the case of segment recruitment, this type of danger is practically absent, as the correct implementation of procedures limits the risk of unsuccessful employment. However, in practice, some situations are observed where there is a possibility of incorrect recruitment, because the basic criterion can be, for example, hiring someone according to "the key". It seems that the only way to reduce the risk is to carry out recruitment

procedures in full scope, taking into account various criteria which are important for the organization.

Finally, it seems necessary to quote one more recruitment definition by T. Listwan (Kawka and Listwan 2009). This describes the process of recruiting employees as a complex activity including searching, informing and attracting candidates for a given post (Recruitment processes have also been described in another literature item (Dolot 2017)). From this perspective, recruitment is primarily about determining the sources of acquiring employees, which in some cases, is the starting point for the implementation of the whole process. The selection of the recruitment sources depends mainly on the financial resources and time designated to acquire the staff, an organizational development phase, the situation on the labor market, an applied human resources management model and the type of position to be staffed (Drozdowski 2012). Concerning recruitment source selection, recruitment can be divided into external, internal and so-called “mixed”. A risk factor which can contribute to the choice of internal recruitment is cost, which is lower as compared to the one born by an organization who decides to recruit externally, as well as the situation of “unhealthy” rivalry between employees and conformism (Szaban 2011). The low costs of this employee acquisition source may not be compensated by the decision effects, i.e., “checking” the employee in the new job position. The low cost of this process can also influence the incorrectness of the formulated procedures and candidates verification criteria.

Acquiring employees from the external labor market gives an organization a chance to find interesting people, who are open, experienced and ready to take on new challenges. However, this type of recruitment has some risks that result from various aspects. The biggest danger is the high cost of this process, which may not be reflected in the worker’s performance. Moreover, in this case, we deal with a labor market, which can limit the possibility of acquiring an adequate employee without incurring additional expenses, for example, related to his/her training. Therefore, organizations search for workers on the external and internal markets so as to reduce the risk of employing an inadequate worker who does not meet their expectations. Implementing this procedure means that we must make sure that the candidates from the external and internal markets undergo identical recruitment procedures and have the same assessment criteria. At the same time, we should remember that every recruitment process must be equal for everyone, both women and men (no signs of discrimination) (Sobocka-Szczapa et al. 2019).

Generally, in recruitment processes, we deal with many possibilities which can improve skills of efficiency and ordering the acquisition of employees. However, due to the variety of approaches, the procedures which are often used in the same way may turn out to be ineffective. In extreme cases, they may even make it more difficult to select the best candidate. This especially applies to the recruitment routine, which may increase the number of candidates, and thus, reduce the chances of employing interesting and valuable employees (Marciniak 2004). Hence, in order to avoid this type of danger, the recruitment process should be carried out by experienced and trained employees of the organization. It is also necessary to correlate recruitment with the specificity of the organization (Sobocka-Szczapa et al. 2019).

4. Risk in Recruitment

Risk in organizational activities mainly refers to the possibility of failure in carried out activities. In particular, this is related to the occurrence of events independent of the functioning subject, which cannot be precisely foreseen and consequently prevented. Such events can affect the decrease in useful resulting outcomes and/or the increase in expenditure, which makes actions totally or partially effective, beneficial or economical. Thus, risk is the probability of incurring a loss (Tyrańska-Walas 2008).

The essence of risk in human resource management is the danger resulting from the management method, i.e., errors made in this process. The risk of micro-organizational and micro-social characters, related to the involvement in uncertain conditions in the activities concerning staff, may end up in failure. This is the context of operational risk

(Jajuga 2009), which is mostly related to the inability to immediately and clearly state if, in this specific case, the activities directed towards appropriate shaping of human resources will bring results which are coherent with the company's personnel strategy (Lipka 2002) (more information on the subject can be found in the study by Bombiak 2017).

In the case of recruitment, a loss resulting from the risk of employing the wrong employee can be considered to stem from the limited suitability of the employee to perform tasks at the designated work position, which mainly results from the evaluation of the effects achieved by the employee, as well as the observed negative impact on the atmosphere in the employee team. The risk in the process of employee recruitment can be assessed as the so-called pure risk, different from dynamic speculative risk (Tyrańska-Walas 2008), which consists of perceiving the risk as an opportunity for the development of the organization. This understanding of recruitment risk is a function of the probability of a negative event occurring as a result of subjective conditions determined by personnel decisions (Rutka and Czarska 2006).

The main objective of recruitment is to acquire an adequate number of employees for the tasks performed by the organization, characterized by features that enable the organization to achieve the expected results in a specific place and time. This recruitment objective should contribute to cover both the present and future, in addition to foreseen or random staff shortages (Michna et al. 2015). Thus, recruiting the "wrong" employee—who fails to meet expectations, quits his job, or has to be fired—entails a high cost related to additional training and insufficient work performance. Therefore, it should be accepted that recruitment must perform three basic functions: informational, motivational, and pre-selection, the most important of these being informational, consisting of conveying the correct preparation of information that an organization is looking for people willing to work. This information must be comprehensive and helpful for candidates who are deciding whether to apply for a job in the offered position (Sobočka-Szczapa 2018). From the organizational perspective, this should answer the following questions:

- firstly, what kind of people do we need for the company to be successful and maintain its strong position?
- secondly, what can we do to acquire, train and keep such people?

In order to answer such questions, the rules of recruiting employees should be properly developed, which allows one to minimize the risk of employing the wrong person and—subsequently—to select the best possible candidate for a given position. Therefore, the most important trend today is to reduce the importance of habits and mental limitations in the recruitment processes, and to facilitate creativity. With generation Z entering the labor market, it is important to notice the differences in the expectations and values of individual generations of employees. A good diagnosis of the needs and expectations of every group and the ability to enjoy the advantages of each one is now the company's competitive advantage source. In recruitment, we stop standing on both sides of the barricade. It is also important to put people above skills, because even the most qualified expert will not benefit a company if he cannot work in a team, has a negative effect on his colleagues, or his ethical code is different from the company's values. In addition, the skills which are needed at a given moment, in a few months or years, may no longer be significant. Therefore, we must look at them from a *Just-in-Time* perspective. Thus, every recruitment process requires an appropriate place or carrier, thanks to which we can inform potential candidates about their activities (HR Inspiracje—Nowe Formy Rekrutacji 2015).

The complexity of the recruitment process can cause many mistakes, which lead to the risk of employing an inadequate employee. The most common mistake is a **disrespectful approach** to the recruitment process (devoting too little time to it, relying on chance). This activity introduces a big risk of making an incorrect decision, which may impact the quality of work team and, consequently, the further development of the enterprise in the future.

The lack of plans concerning the demand for staff has an influence on the increase in risk in recruitment processes, which consequently does not contribute to systematic activities in this area. Hiring needs appear unexpectedly and must be met immediately.

Undoubtedly, in this case, linking employment needs with the organization's development strategy is important.

A cardinal error in recruitment is, in many cases, the **lack of job descriptions** and the lack of preparation of **candidate's profiles**, which undoubtedly increases the risk of an unsuccessful recruitment procedure. This practically translates into the employing of random people and the necessity to conduct further recruitment, despite the apparent saving of time spent on recruitment activities.

Another error in the recruitment process, is not identifying a **proper source** from which one can acquire an employee most efficiently and cheaply. In case of making a wrong choice, there is a risk that many people will come to the job with no qualifications. The failure of recruitment processes may be to search for an employee at the wrong **time**, which undoubtedly extends the procedure.

Undoubtedly, the use of **specialized software** is also a risk factor in the recruitment process. Thanks to this, recruitment can be much faster. Nevertheless, it is not worth relying on chance when choosing such software. In this case, it should be determined, on the one hand, by the suitability of this tool for the formulated procedure, and, on the other, by the fact that the organization has a specialist in this field. Therefore, it is important to compare the systems of different manufacturers in terms of the specific needs of the company (e.g., the number of recruitments carried out per month, the number of recruiters, the method of communication with internal clients). It may also be good practice to make a simulation of its work with a data size that is comparable to that present in the daily work of the application. How the new software will assist access to necessary information, and how the application will enable us to search the database with application documents are also important. Next, the willingness of the manufacturer to create individually adapted application extensions is important and this may become valuable if we need to introduce changes (Filiks 2020) (accessed on 28 December 2020).

Taking into account these considerations, we can classify types of risk in recruitment. In this case, we can talk about the risk in terms of:

1. incorrect estimation of personnel needs, both in terms of quantity and quality;
2. incorrect selection of sources and recruitment methods;
3. deficiencies in the documentation and misinterpretation of the information contained therein.

Realizing that the efficiency/effectiveness of the company's operations may be reduced by the risk related to the processes of acquiring employees, requires identification of the strength of dependence and a catalogue of risk factors. This is also important because it is possible to reduce the negative effects of the recruitment risk. Therefore, let us look at the conditions of the construction of the recruitment risk model.

5. Premises of Recruitment Risk Model

Models in contemporary science are one of the foundations of science formation (Gillies 2004; Winkowska-Nowak et al. 2007). If we look at the variety definitions and subject diversity in the "model" category, we can see that the philosophy has dominated the reality descriptions. Typically, the concept of a model cannot be limited to one phenomenon or object. They support a paradigm or theory, although generally, models are independent of the theory. At the same time, the theory does not give algorithms of creating models, because models allow the use of functions or, more broadly, dependencies which would not be possible to apply within a strictly understood theory. It is worth noting, however, that a model can be a good paradigm or supportive theory. In view of the above, we can propose the existence of three relations between the model and the theory. The first one deals with the model as a supplement to the theory, the second one as a model that simplifies an overly complex theory, and the third one as a paradigm or a preliminary theory (More on this in Gospodarek 2009). Regardless of the indicated relationships, management sciences modeling, the process of inference and interpretation of dependencies is the most important. This is because it is a prerequisite for further description and supplementing

the components of the model, and thus, bringing it closer to the actual conditions of the organization's functioning.

The source literature presents many types of models that are used in science, including management sciences (more information on the models used in science can be found in the following English books: Van Fraassen 1980; Mundy 1986; Giere 2004; Teller 2001; Peirce 2001; Atkin 2007; Hesse 2003). Relevant information on this subject can also be found in the Polish literature (Kotarbiński 2003; Kwaśnicki 2001; Gospodarek 2009; Mesjasz 2007). From among all types of models applied in the analysis of the relationship between risk factors and risk in the recruitment processes, we selected a descriptive model. It seems that this is the most significant role for the model from a scientific viewpoint, because a more or less precise description of a representative real system is important to avoid errors in recruitment. This viewpoint is practically not criticized. Conflicts (presenting a given system in many non-contradictory ways) can be a problem, for which partial or equivalent models are built.

The created model will consist of two basic elements, i.e., the types of risk (endogenous and dependent variable) and the determinants of this phenomenon (exogenous, independent variables). The division (endogenous and exogenous variables) can in some cases be arbitrary, because the aim of modeling processes is to point out the possibility of feedback. However, it is necessary to point out boundary conditions which must be taken into account in this research concept. Those conditions should primarily include the possibility of identifying the above-mentioned elements in the area of the company's operation. This type of boundary condition will allow us to model variable dependencies which determine the risk area in employees recruiting. The flexibility of a descriptive model will be provided thanks to the possibility of listing the largest amount of determinants of individual risk types and thanks to the introduction of expert corrections by recruiters at every stage of the modeling. In the modeling process, the method of description and dependency assessment will be used. Thus, the model is going to have a cause and effect character (Chart 1).

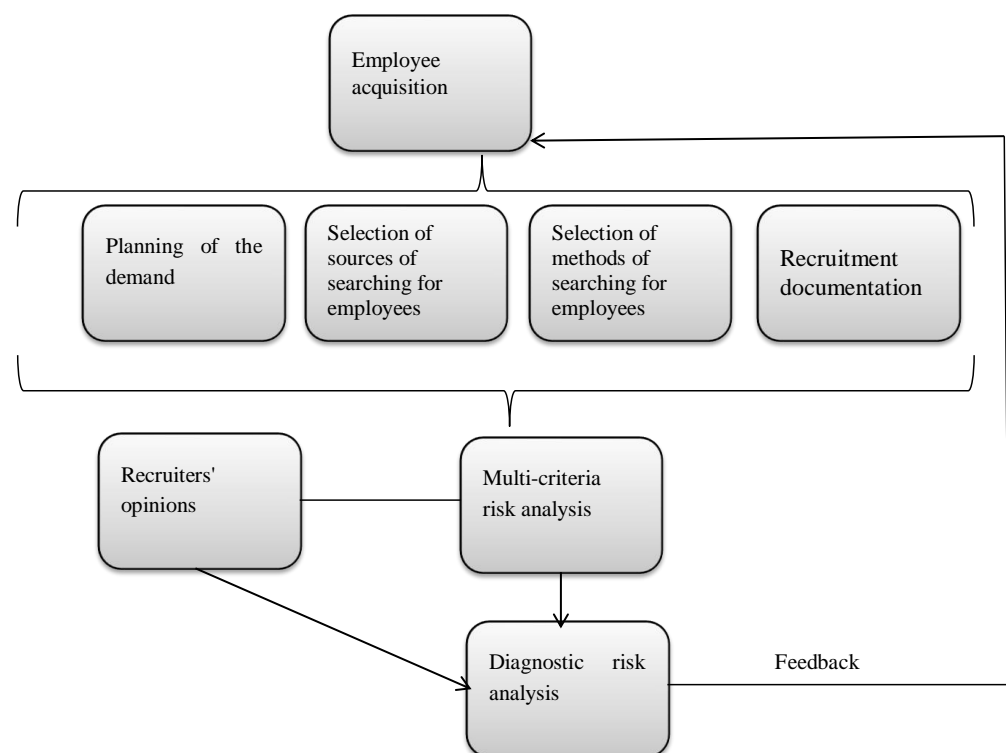


Chart 1. Dependencies in the developed model. Source: own study.

The model assumption is to subordinate it to multiple-criteria and multiple-stages analysis on an organizational level. In the first stage, according to the model, a recruitment procedure should be analyzed and one should identify various risk determinants which may occur in this procedure, resulting in different types of this risk (Chart 2).

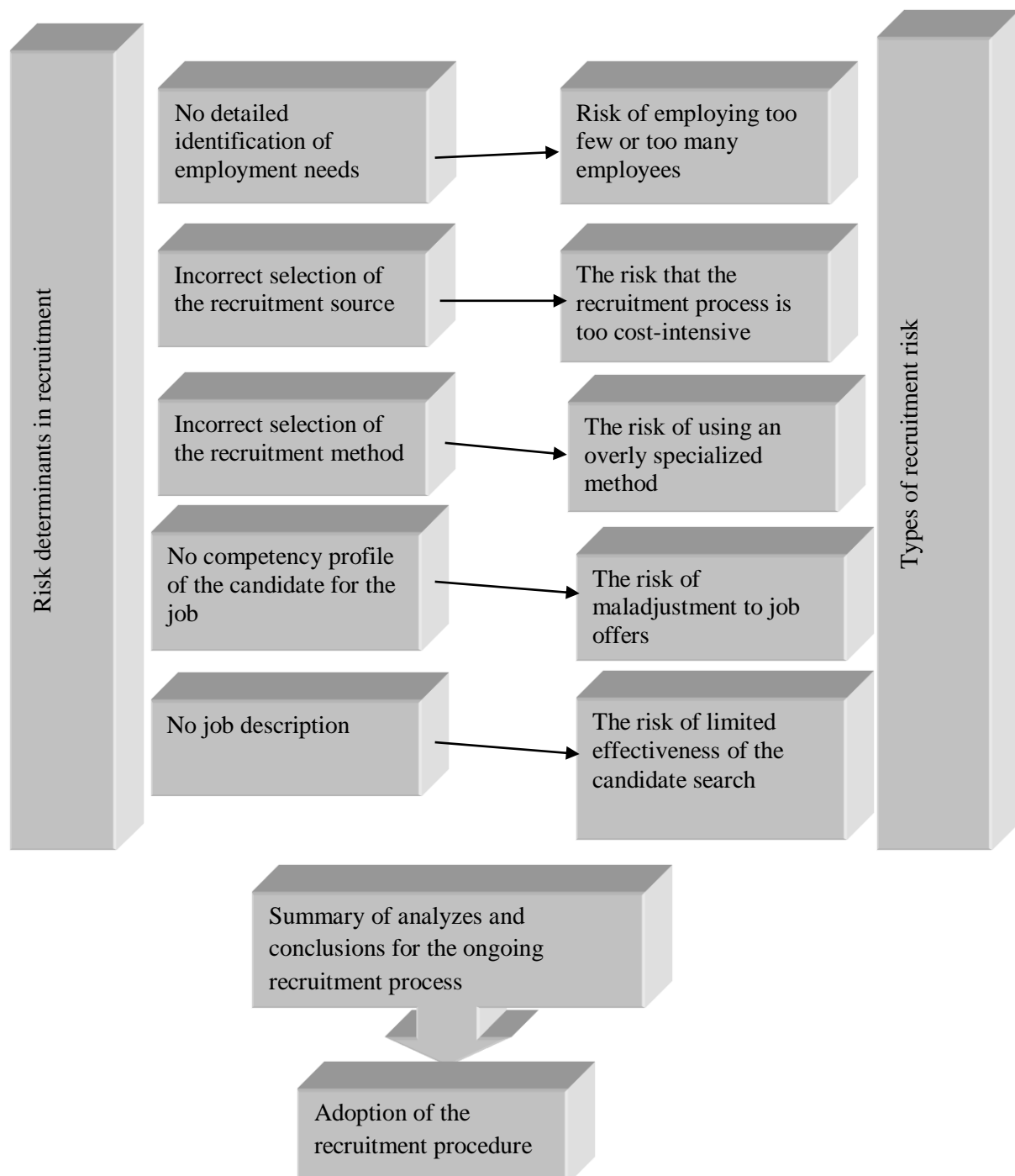


Chart 2. The analysis performed in the first stage. Source: own study.

At the same time, it should be emphasized that the analysis should be done individually for every recruitment process in the organization, because each recruitment process can be used to recruit an employee for a different job.

At the next stage of implementation of the proposed model, the most common types of risk in recruiting employees should appear, occurring in a given organization, and

developed using the zero–one method, where 0 means lack of danger, while 1 refers to its presence (Chart 3).

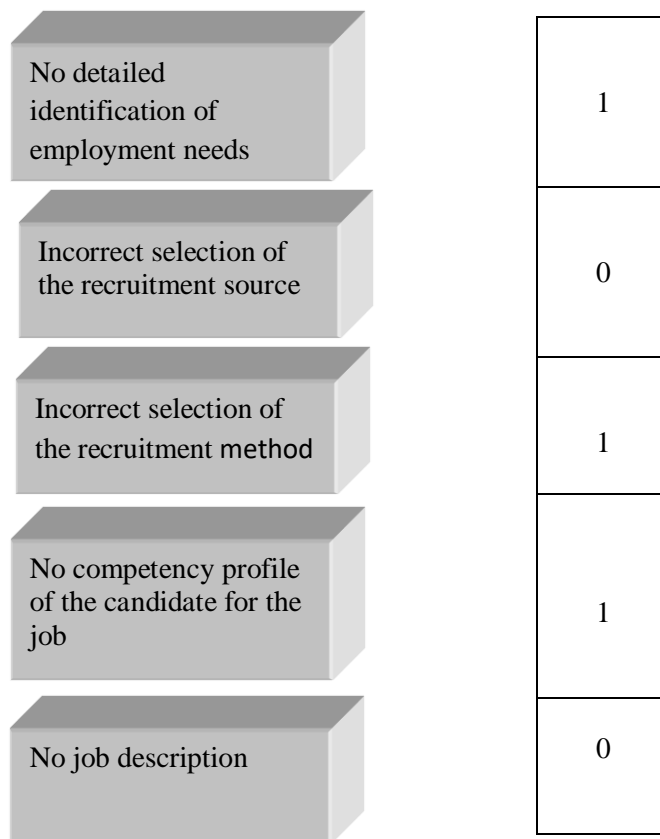


Chart 3. An example of how to carry out analyzes in the second stage of the proposed model. Source: own study.

Note: The example was formulated based on previous research carried out in different projects.

At this stage, the proposed procedure of recruiting an employee should also be verified, taking into account truthfulness and completeness of documentation. One should reduce superficiality and randomness related to the possible time limitation of the project. This eliminates the risk of using the proposed model itself. The results of the analyses conducted at this level should be the specification of the greatest dangers, which may affect the acquisition of the inadequate candidate for a job.

In the third stage, the final recruitment procedure should be assessed, in which the possibilities of preventing the indicated types of risk will be analyzed (Chart 4).

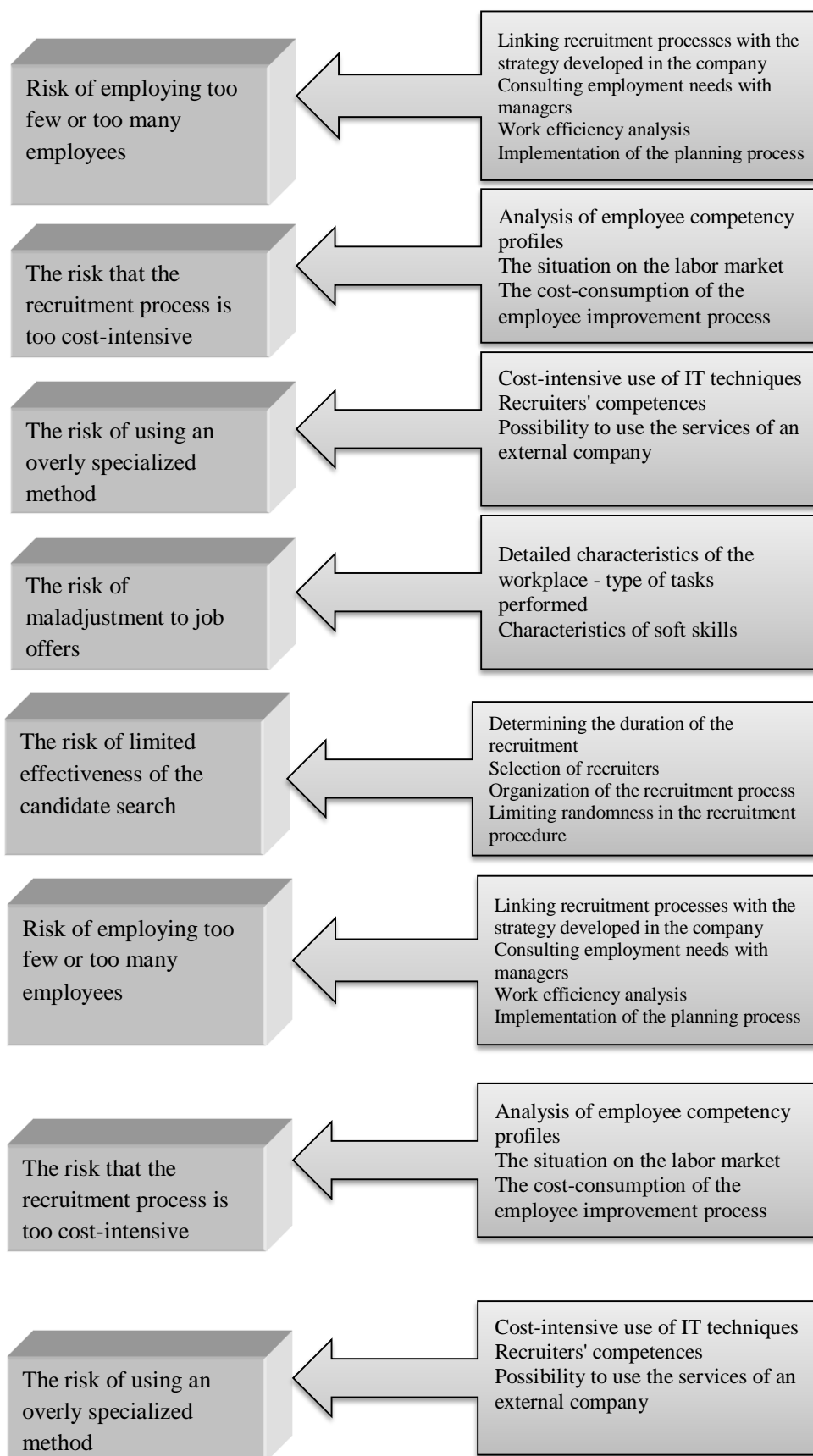


Chart 4. Cont.

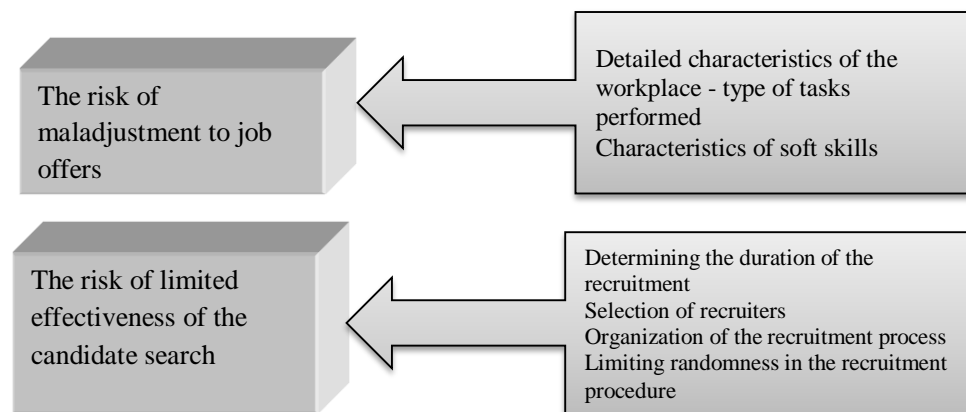


Chart 4. Possibilities of counteracting various types of risk in recruitment processes. Source: own study.

The result of the three-stage procedure, which was provided in the recruitment risk model, should be a well-thought-out and significantly risk-reducing procedure for obtaining job candidates. At the same time, three approaches to the risk, resulting from errors made in recruitment processes (risk determinants), can be used. This approach should depend on the level of this risk of these events. In this scope, one can accept the D. Baccarini proposal, who—in the case of very low and/or low risk events—proposes to accept them and refrain from actions aimed at reducing the risk. However, in the case of events with moderate-risk, Baccarini recommends constant monitoring, because this process provides a lot of valuable information on the directions in which the risk evolves, while it may also signal the need for preventive measures. Finally, when disadvantageous events have very high and/or high risk, it is necessary—in Baccarini’s opinion—to take measures to reduce them (Baccarini 2002) (more comments on risk management can be found in the publication by M. Czerska and R. Rutka, as well as in the publication by D. Baccarini, G. Salma and P. E. D. Love (Czerska and Rutka 2016; Baccarini et al. 2004)).

The model presented should also enable us to generate scenarios for the implementation of employee recruitment processes depending on the type of job offered. These types of opportunities will be the result of introducing expert opinions at every stage of the analysis, reflecting the specificity of the organization’s functioning.

The described model, in a user-friendly way, should enable the generation of basic risk determinants in the recruitment procedure and indicate ways of counteracting the risk of unsuccessful employment. Additionally, this model should perform three functions which may be of importance for recruiters. Firstly, an informational function should be performed, which enables the identification of the main determinants of risk. Secondly, integrative functions, which enable one to perceive coherence between recruiting employees and its importance for the proper organizational activity. And finally, thirdly—an application function enables the use of model solutions in various organizations. This is guaranteed mainly through the participation of people usually recruited in organizations, who suitable skills and who may offer expert opinion. In addition, the functionality of the proposed model is limited by two elements, namely, by the necessity of a conscientious approach of recruiters to every process of recruiting an employee and carrying out such activities as part of extensive procedures. At the same time, the biggest problem may be lack of interest. In order to minimize this problem, let us look at the utility determinants of the presented model.

6. Model Usability Premises

Usability is usually understood as the quality of a product which determines its performance quality (more information on usability can be found in the publication by Sobocka-Szczapa et al. 2019). The product, in this case, is a model whose usability can be verified by five criteria (such criteria for the assessment of the usability of websites were

formulated by J. Nielsen (Nielsen 2003)). This verification is so important, because one of the modeling assumptions is to disseminate the developed procedures, and thus, this leads to a situation in which the direct use of the product does not cause any difficulties.

The usability of the analyzed model can be analyzed from two viewpoints. Firstly, the employee acquired as a result of its application may prove its usefulness, and secondly, its simplicity and universalism may indicate its usefulness.

Considering utility from the first viewpoint, its determination requires an analysis of the usefulness of the total staff (the sum of products and services produced under certain conditions) and marginal utility (change in results resulting from hiring an additional employee). Therefore, the level of usefulness in this context will be primarily influenced by the intellectual capital of the candidate for work and the situation on the labor market (the number of jobseekers and their qualification and professional structure). In this case, the willingness of employers to participate in lifelong education is important, as they make it possible to adapt qualifications and skills of the employed employees to their expectations. It is important to have educational offers that are coherent with the employers' demand for employees, because this type of mismatch has a significant relationship with the consolidation of a disadvantageous—both for employers and employees—situation in the labor market, which renders it impossible to professionally activate a job hunt.

On the other hand, usefulness, analyzed from the viewpoint of simplicity and universality, should enable us to obtain the most satisfying result with the least expenditure, and allow the model to be used in various organizations.

The model usability analysis should contain at least two elements, namely, the utility features which the model should be characterized by, as well as the levels of this utility.

From the point of view of the utility characteristics of the model, also taking into account organizational needs, the following elements should be taken into account: model functionality, ease of accessing the information sought, compatibility with other models used in the organization's activities, accuracy which would enable effective employee acquisition and completeness, i.e., the possibility of comprehensive situational awareness.

In the source literature, there is no clear definition of the model's usefulness level. Both objective and subjective approaches are allowed. In the first case, normative and empirical methods are used, determined mainly by experts. As part of the subjective approach, the level of utility can be determined through individualized criteria for the research. Accepting the second procedure as a basis for assessing the utility levels of the presented model, it is important to determine the relationship between the needs of the model user and the functional demands formulated on their basis, which are: methodology, access to the database, preparation of the employee using the model, IT database and cost intensity model implementation. When attempting to define the relationship between the functional requirements of the model and the needs of representatives of economic entities, it should be emphasized that the analyzed problem—the need of each organization in the course of the recruitment process—is to employ the best candidate for a job from those applying for a given position. This means that it is necessary to identify threats resulting in the risk of employing the wrong employee, which should undoubtedly be considered in terms of recruitment effectiveness. Taking into account the indicated functional demand, the risk recruitment model premises should be assessed so that they include the risk determinants. Therefore, the procedure—carried out in accordance with the staged nature of the proposed analyses—may significantly contribute to increasing the effectiveness of activities, and the level of their implementation within the selected comparative scale (Sobocka-Szczapa et al. 2019; Lenard Bartłomiej 2018 (accessed on 5 January 2021)).

7. Conclusions

A vacant position incurs a pressure to fill it as quickly as possible. Haste and determination are justified in this case, because the lack of a workforce can generate costs and prevent the development of the enterprise. However, the rush associated with the need to complete the recruitment project as soon as possible, may reduce the chances of employing

a suitable candidate. The hiring of an inappropriate employee, in turn, presents a risk of negative consequences, which may be more costly than the original vacancy.

Hiring a new employee always incurs some risk. One can never be certain if a given person will fit in the corporate organizational culture or will meet the demands related to the post. However, this risk should be minimized. The consequences related to hiring the wrong person can affect other team members, reduce the possibility of completing tasks, and weaken the organization's brand. Unfavorable recruitment decisions lead to the necessity to bear additional costs, estimated to be at the level of 30% of the company's yearly budget. This also reduces selling possibilities by approximately 10%. Employing the wrong person may also contribute to a 36% decrease in productivity (the size depends on the post and organization size), which is a consequence of a decrease in the efficiency of the team's work as a result of lowering the motivation of its members. An unquestionable negative effect of hiring an unsuitable candidate for a job, is the need to repeat the time-consuming recruitment procedure. Time loss is estimated at around 40% (Team Quest 2015 (accessed on 5 January 2021)). Avoiding such negative consequences of an improperly implemented recruitment process should encourage organizations to use the developed model, because it is then possible to systematically analyze individual threats, including the assessment of the recruiter's correct level of preparation to carry out the employee hiring process. This mainly concerns the possibility of using modern recruitment tools in the recruitment process.

The actual usefulness of the developed model should be considered in terms of increasing the effectiveness of acquiring the right employees for the offered job. Increasing such effectiveness could increase the efficiency of the company's operations, and thus, increase its competitiveness. This is why it is so important to comprehensively recognize the determinants of this risk and develop the final recruitment procedure as a result of a feedback analysis. At the same time, this analysis should help reduce the number of errors, and in the developed model, these are called risk determinants (more information on the most common mistakes in recruitment processes can be found on the website: [Praca. pl 2019](#) (accessed on 5 January 2021)). The proposed model may facilitate analysis and, thus, may contribute to reducing the level of risk in recruitment processes. Furthermore, due to the ease of construction of the model, this may affect the universality of its application and increase interest in recruitment, as a procedure that significantly contributes to increasing the effectiveness of an organization's functioning.

Funding: Scientific publication financed by a subsidy of the Ministry of Science and Higher Education from financial resources for the maintenance and development of research potential. The research was not funded.

Data Availability Statement: The projects cited in the article, in which the author participated, were on the website of the Institute of Labor and Social Affairs (www.ipiss.com.pl).

Acknowledgments: I would like to thank the University management, the Rector and the Vice-Rector for providing financial support. I would like to express my gratitude to the entire editorial team of the Risks magazine, especially Harper Lu for technical support and the possibility of contacting in case of any doubts.

Conflicts of Interest: The authors declare no conflict of interest. The funders had no role in the design of the study; in the collection, analyses, or interpretation of data; in the writing of the manuscript, or in the decision to publish the results.

References

- Adamiec, Marek, and Barbara Kozusznik. 2000. *Zarządzanie zasobami ludzkimi. Aktor- Kreator-Inspirator*. Katowice: Wydawnictwo AKADE, pp. 105–6.
- Anaraki-Ardakani, Davood, and Mohammad A. Ganjalim. 2014. Human Resource Risk Management. *Applied Mathematics in Engineering, Management and Technology* 2: 129–42.
- Atkin, Artur. 2007. *Peirce's Theory of Signs*. Edited by Edward N. Zalta. The Stanford Encyclopedia of Philosophy. Available online: <http://plato.stanford.edu/archives/fall2007/entries/peirce-semiotics> (accessed on 31 December 2020).

- Baccarini, David. 2002. *Risk Management Australian Type. Theory vs. Practice*. PMI: Western Michigan.
- Baccarini, David, Geoff Salm, and Peter E. D. Love. 2004. Management of risks in information technology projects. *Industrial Management & Data Systems* 104: 286–95.
- Bombiak, Edyta. 2017. *Human Resources Risk as an Aspect of Human Resources Management in Turbulent Environments*. Management and Leadership. Siedlce: Uniwersytet Przyrodniczo-Humanistyczny w Siedlcach, p. 123.
- Borowski, Andrzej. 2016. Proces rekrutacji i selekcji pracowników w jednostkach samorządu terytorialnego. In *Ekonomia i Nauki o Zarządzaniu w Warunkach Integracji Gospodarczej, Ekonomia i Zarządzanie w Teorii i Praktyce, T. 6*. Edited by Ewa Walińska and Piotr Urbanek. Łódź: Wydawnictwo UŁ, p. 251.
- Czerska, Małgorzata, and Ryszard Rutka. 2016. *Metody Oceny Ryzyka Personalnego*. Studia Ekonomiczne. Katowice: Wydawnictwo Uniwersytetu Ekonomicznego w Katowicach, vol. 280.
- Dolot, Anna. 2017. *Rola Procesu Rekrutacji w Kształtowaniu Wizerunku Przedsiębiorstw*. Kraków: Uniwersytet Ekonomiczny w Krakowie, p. 61 et seq.
- Drozdowski, Grzegorz. 2012. *Kształtowanie Zatrudnienia w Organizacjach Publicznych*. Sulechów: PWSZ w Sulechowie, Studia Lubuskie, vol. VII, p. 216.
- Filiks, Adrianna. Zarządzanie Rekrutacją—Czy Można je Sobie Ułatwić? Available online: <https://www.studiamba.wsb.pl/baza-wiedzy/zarzadzanie-rekrutacja-czy-mozna-je-sobie-ulatwic> (accessed on 28 December 2020).
- Giere, Ronald. 2004. How Models Are Used to Represent Reality. *Philosophy of Science* 71: 742–52. [CrossRef]
- Gillies, Donald. 2004. *Laos and Models in Science*. London: Donald Gillies King's College Publications.
- Gospodarek, Tadeusz. 2009. *Modelowanie w Naukach o Zarządzaniu Oparte na Metodzie Programów Badawczych i Formalizmie Reprezentatywnym*. Wrocław: Wydawnictwo Uniwersytetu Ekonomicznego we Wrocławiu, pp. 62–63, 70.
- Hesse, Mary Brenda. 2003. *Models and Analogies in Science*. London: University of Notre Dame Press, Sheed and Ward.
- HR Inspiracje—Nowe Formy Rekrutacji. 2015. Available online: <https://hrstandard.pl/2015/08/24/hr-inspiracje-nowe-formy-rekrutacji/> (accessed on 28 December 2020).
- Jajuga, Krzysztof. 2009. Ryzyko operacyjne w banku. In *Zarządzanie Ryzykiem*. Edited by K. Jajuga. Warszawa: PWN, pp. 269–73.
- Kawka, Tomasz, and Tadeusz Listwan. 2009. Dobór pracowników. In *Zarządzanie Kadrami*. Edited by Tadeusz Listwan. Wrocław: Akademia Ekonomiczna, p. 101 et seq.
- Kotarbiński, Tadeusz. 2003. *Elementy Teorii Poznania, Logiki Formalnej i Metodologii Nauk*. Warszawa: Altaya Polska & De Agostini Polska, p. 440.
- Kwaśnicki, Witold. 2001. Analogie Fizykalistyczne jako Źródła Inspiracji w Analizie Ekonomicznej. Available online: <http://prawo.uni.wroc.pl/~{kwasnicki/todownload/Analogie%20fizykalistyczne.pdf> (accessed on 31 December 2020).
- Lenard Bartłomiej. 2018. Metody kwantyfikacji użyteczności i mierzenia User Experience. Available online: <https://www.nbc.com.pl/metody-kwantyfikacji-uz%cc%87ytecznosc-i-mierzenia-user-experience-czyli-jak-w-oparciu-o-liczby-projektowac-dobrze/> (accessed on 5 January 2021).
- Lipka, Anna. 2002. *Ryzyko Personalne. Szanse i Zagrożenia Zarządzania Zasobami Ludzkimi*. Warszawa: Poltext, p. 24.
- Maniak, Grażyna. 2001. *Wprowadzenie do Zarządzania Zasobami Ludzkimi*. Szczecin: Wydawnictwo Zachodniopomorskiej Szkoły Biznesu, p. 76.
- Marciniak, Jarosław. 2004. *Rekrutacja i Zatrudnienie Według Standardów Unii Europejskiej*. Ostrołęka: Alpha pro Wydawnictwa Profesjonalne, p. 136.
- Mesjasz, Czesław. 2007. Fizyka a Nauki Społeczne—Kilka Problemów do Wyjaśnienia. Available online: http://www.zis.agh.edu.pl/sociophysics/pdf/sociophysics_20071213.pdf (accessed on 31 December 2020).
- Meyer, Marius, Gert Roodt, and Michael Robbins. 2011. Human resources risk management: Governing people risks for improved performance. *SA Journal of Human Resource Management/SA Tydskrifvir Menslikehulpbronbestuur* 9: 366. [CrossRef]
- Michna, Anna, Karolina Grygiel, and Paweł Grygiel. 2015. *Rekrutacja Oraz System Motywacyjny Pracowników jako Element Zarządzania Zasobami Ludzkimi w Wybranej Jednostce Administracji Publicznej*. Zeszyty Naukowe Politechniki Śląskiej, Seria: Organizacja i Zarządzanie, zeszyt 78 nr 1928. Zabrze: Wydawnictwo Politechniki Śląskiej, p. 283.
- Mundy, Brent. 1986. On the General Theory of Meaningful Representation. *Synthese* 67: 391–437. [CrossRef]
- Nickson, S. 2001. The Human Resources Balancing Act, Cooperation between risk management HR. *Risk Management* 48: 25–29.
- Nielsen, Jakob. 2003. *Projektowanie Funkcjonalnych Serwisów Internetowych*. Gliwice: Wyd. Helion.
- Peirce, Charles Sanders. 2001. *Collected Papers of Charles Sanders Peirce*. Edited by C. Hartshorne, P. Weiss and A. Burks. Cambridge: Harvard University Press, vol. 3, p. 362.
- Pocztowski, Aleksy. 2003. *Zarządzanie Zasobami Ludzkimi*. Warszawa: PWE, p. 142.
- Praca. pl. 2019. Błędy w Rekrutacji Pracowników—jak ich Uniknąć. Available online: https://www.praca.pl/poradniki/dla-pracodawcow/bledy-w-rekrutacji-pracownikow-jak-ich-uniknac_pr-1201.html (accessed on 5 January 2021).
- Rutka, Ryszard, and Małgorzata Czerska. 2006. Ryzyko ewaluacyjne w zarządzaniu personelem w badanych urzędach miasta. In *Doskonalenie Systemów Zarządzania w Społeczeństwie Informacyjnym, t. 2*. Edited by A. Stabryła. Kraków: Akademia Ekonomiczna w Krakowie, p. 201.
- Shriram. 2017. *Shriram Annual Report 2017*. Egmore: Shriram, p. 3.

- Sobočka-Szczapa, Halina, ed. 2018. Recruitment and Labour Market Situation. In *Determinants of Organisational Effectiveness vs. Humanistic Management Problems*. Entrepreneurship and Management. Łódź-Warszawa: Społeczna Akademia Nauk, vol. XIX, pp. 53–54.
- Sobočka-Szczapa, Halina, Aleksy Banasiak, and Barbara Kamińska. 2019. *Zarządzanie Zasobami Ludzkimi. Model 3D: Wiedza-Jakość-Kultura Organizacyjna*. Łódź-Warszawa: SAN, pp. 167 et seq., 20 et seq., 185.
- Szaban, Jolanta M. 2011. *Zarządzanie Zasobami Ludzkimi w Biznesie i Administracji Publicznej. Rynek, Pracy, Dobór, Ocena, Rozwój i Kariera, Odejścia z Pracy*. Warszawa: Difin, p. 102.
- Szałkowski, Adam. 2006. *Podstawy Zarządzania Personalem*. Kraków: Wydawnictwo Akademii Ekonomicznej, pp. 79–80.
- Team Quest. 2015. Koszty Niewłaściwych Decyzji Rekrutacyjnych. Jak ich Unikać. Available online: https://teamquest.pl/blog/106_koszty-niewlasciwych-decyzji-rekrutacyjnych-jak-ich-unikac (accessed on 5 January 2021).
- Teller, Paul. 2001. Twilight of the Perfect Model. *Erkenntnis* 55: 393–415. [CrossRef]
- Tyrańska-Walas, Małgorzata. 2008. Obszary ryzyka w zarządzaniu zasobami ludzkimi w przedsiębiorstwie. *Zeszyty Naukowe Uniwersytetu ekonomicznego w Krakowie* 772: 221–35.
- Van Fraassen, Bas Cornelius. 1980. *The Scientific Image*. Oxford: Oxford University Press.
- Winkowska-Nowak, Katarzyna, Andrzej Nowak, and Agnieszka Rychwalska. 2007. *Modelowanie Matematyczne i Symulacje Komputerowe w Naukach Społecznych*. Warszawa: SWPS Academica.