2024

Maciej SZCZEPANKIEWICZ\*

# IMPACT OF EMPLOYEE DIVERSITY LEVEL ON INNOVATIVE POTENTIAL IN INSURANCE COMPANIES

DOI: 10.21008/j.0239-9415.2024.089.10

In the context of Polish insurance firms, scholarly research has identified a gap in the methodologies for assessing employees' innovative potential (IP) and the significant role of managerial strategies in shaping it. The study focused on team diversity and its impact on IP, noting that among 43-47 active insurance companies, only 18 had product-focused teams, with 16 participating in the research. The literature suggests a positive link between team diversity – considering age, gender, experience, knowledge, skills, and personality – and IP. The main research question explored how diversity influences employees' IP levels in insurance companies. The article aims to identify strategies for managing employees' IP effectively and efficiently, emphasizing the need for a precise definition of IP that includes knowledge, skills, and personality traits conducive to innovation. This approach avoids overly broad definitions that may shift the focus from key innovative traits. The research findings included an assessment of the level of innovative potential in terms of knowledge, skills, and personality traits, as well as an evaluation of the correlation between employee diversity and the achieved level of innovative potential. The article also indicates potential applications and directions for further research.

**Keywords**: knowledge, diversity, skills, employees, innovative, innovation potential, insurance company, character traits

## 1. INTRODUCTION

A pivotal concern frequently discussed in scholarly literature and economic practice pertains to the subdued levels of innovation within Poland. This phenomenon is observable at various levels, including national, corporate, and individual employee levels. It is essential to discover the root cause of this problem – identify-

<sup>\*</sup> Poznan University of Technology, Faculty of Engineering Management. ORCID: 0000-0003-1209-4676.



ing impediments both within the macroeconomic framework and within the microcosms of organizations and their personnel. This article will scrutinize the link between employee management and innovative potential (IP).

The impetus behind delving into innovation and its associated dynamics comes from its integral role in the evolution of a knowledge-driven economy, enhancing the efficacy of production, distribution, and labor productivity. Companies with a high rating in terms of employee creativity and organizational innovation are better equipped to compete effectively in today's demanding business environment (Direction, 2022). Innovations are pivotal to businesses wishing to secure a competitive edge, a principle that also holds true for financial entities such as insurance firms. These institutions not only integrate innovations from diverse economic sectors, but also develop novelties specific to the financial market.

The concept of innovative potential is considered a precursor to the innovation process, culminating in the eventual introduction of innovations, be they products, services, or processes. It, therefore, precedes the notion of innovativeness or innovative activity. Zalewski (2009) elucidates innovative activity, depicting it as deliberate actions within the realms of science, technology, and the organization aimed at fostering innovation. He distinguishes between activities that directly yield innovation and those that contribute indirectly, underscoring the necessity of both for the successful adoption of innovations. The ambit of innovativeness includes research and development (R&D), which, while not directly linked to the creation of specific innovations, remains a vital component (Zalewski, 2009).

Urbaniak (2017) advocates collaboration with suppliers during R&D phases in order to preempt potential flaws in new products and mitigate risks associated with the development of competencies and employee's knowledge Zastempowski (2013) highlights that despite extensive exploration, certain facets of innovativeness warrant further examination. One such facet is the innovative potential of a firm. He observes that while the concept of competitive potential and its influence on corporate competitiveness has been extensively studied, the domain of innovative potential continues to be a focal point of numerous inquiries and research. The author portrays a company's innovative potential as a component of a more expansive construct, referencing Cohen and Lewinthal's (1990) theory on an organization's absorptive capacity and Rothwell and Zegweld's (1984) interactive model of innovation creation. A comprehensive literature review of empirical studies has found that employees perceive a combination of reasonably high demands and high resources to be ideal for their engagement, innovative behavior is a consequence of these delicate interactions, and engaged employees are more likely to behave innovatively by activating coping strategies for dealing with challenges (Kwon, 2021).

There appears to be a discernible gap in the literature concerning methodologies for gauging the innovative potential of employees within insurance firms, the quantification thereof, and the important role of managerial strategies in sculpting this potential. The research described here centred on the selection of methods for steering



the innovative potential of insurance company personnel, with a particular focus on team heterogeneity. These investigative efforts aimed to delineate measures for the effective recruitment of staff possessing a pronounced innovation potential (IP), and subsequently, to sustain this potential through collaborative endeavors.

The main focus of the inquiry pertained to the influence of diversity on the innovative potential of employees in Polish insurance establishments. The study encompassed firms from both Section I (life insurance) and II (personal insurance and property insurance), where product-oriented departments were operational. Within the timeframe of the study, 43-47 insurance firms were active in Poland across both sections, yet only 18 boasted product-centric teams, 16 of which participated in the research.

In exploring the subject of human resource management, and in alignment with the article's objectives, it is important to highlight the complex issue of workforce diversity. The literature extensively discusses the impact of various distinguishing factors among individuals, including age, gender, race, ability, knowledge, education, experience, skills and competencies, personality traits, beliefs, value systems, identity, and culture (Ameshi et al., 2007). This article posits a positive correlation between the degree of diversity across multiple dimensions within insurance company teams and the innovative potential inherent in these groups.

Employee diversity is of paramount importance in the context of Corporate Social Responsibility (CSR) and Environmental, Social, and Governance (ESG) criteria. Diversity, Equity, and Inclusion (DEI) are integral components of CSR and are increasingly recognized as critical for the successful implementation of ESG strategies. Diversity within the workforce contributes to a variety of perspectives and ideas, fostering innovation and creativity. It enhances a company's ability to address the needs of a diverse customer base and to respond effectively to global market demands. Equity, on the other hand, ensures fair treatment, equality of opportunity, and transparency in the recruitment, development, and advancement of employees. Finally, inclusion creates a work environment where all individuals feel respected, are treated fairly, and have equal access to opportunities and resources (Fatima, Eblanna, 2023).

In analyzing employee diversity, consideration was given to differences in terms of age, gender, experience, knowledge, skills, and personality.

Based on an analysis of the subject literature and the current state of knowledge, a research gap was identified. This then allowed for the formulation of the main research problem which was to arrive at an answer to the basic question:

"How does diversity affect the level of innovative potential of employees in insurance companies?"

To discover an answer to this, the study examined the modalities, actions, methodologies, techniques, and instruments through which employee diversity can be encouraged in order to develop innovative potential within an insurance firm.

The principal objective of this article is to determine the influence of diversity on the formation of employees' innovative potential. In accordance with the arti-



cle's aims, it is crucial that the notion of innovative potential is examined as it pertains to individuals (employees). Innovative potential is characterized by a wide range of attributes including intelligence, comprehension, knowledge, motivation, habits, personality, and emotions (Patterson, Zibarras, 2017), or it may be delineated solely based on traits that are instrumental in assembling a team of innovators (Baruah et al., 2023).

The author posits that an overly expansive definition of innovative potential might introduce elements into the analysis that exert minimal influence on innovativeness. Consequently, the definition of employees' innovative potential embraced in this article is articulated as follows: "Innovative potential embodies a repertoire of factors pertinent to knowledge, skills, and personality traits that are propitious for the genesis of innovation."

The research employed a novel conceptualization of innovative potential, combining scholarly perspectives and adapting them to the context of insurance firms. Comprehensive, cross-disciplinary research yielded insights into the measures needed for boosting the innovative potential of employees at company, industry, and macroeconomic levels.

It is worth noting the positioning of 'innovative potential' as a term – intimately associated with such concepts in management science as intellectual capital, human capital and potential, or creativity. This is paramount, given that the conceptual framework is closely aligned and partially intersects with terms such as innovativeness, human capital, and creativity (Von Hippel, 2014). It is anticipated that the outcomes of the research will enhance understanding of the methodologies for managing innovative potential via team diversity – approaches that will positively influence innovative potential and, by extension, innovativeness. Such a premise supports the rationale for conducting the research – initially, on the human factors that directly impact innovativeness, and subsequently, on management of these factors. From this vantage point, the pursuit of research on managing innovative potential is deemed both justified and imperative.

The empirical investigation encompassed a cohort of 16 managers and 136 employees. The survey was disseminated electronically, hosted on a dedicated website (www.InnoPotential.pl) created for this purpose, with the link circulated via mailing lists. This part of the study was conducted from September to November 2020.

A significant methodological challenge with such a respondent pool is securing a sample size large enough to circumvent the pitfall of hasty generalization. Typically, employees exhibit reticence towards participating in research, particularly studies that appraise their own and their peers' knowledge or skills. The main consideration in such research is to guarantee complete anonymity to the respondents, a feat achieved through the online survey format. Moreover, an appropriate motivational incentive was deemed necessary – in this instance, endorsement of the research by the managerial echelons of the insurance companies proved beneficial. This support was garnered during the pilot phase of the study.



### 2. RESEARCH METHODS

The planned research was divided into three basic phases. In the first phase, the focus was on conducting literature studies on human resource management, innovative potential, and innovations in insurance companies. Additionally, the questionnaires and interviews for the empirical research were developed.

In the second phase, the research was conducted – first a pilot study and then the research study proper. The research focused on the level of innovative potential in the product departments of the insurance companies (using an employee survey), on the managers in terms of their actions aimed at managing diversity and their impact on IP, as well as on identifying the best practices suggested in the literature. This phase also involved the collection and processing of statistical data on the companies selected for the study and innovativeness in Poland at the micro, mezzo, and macro levels, and obtaining detailed data on recruitment size, dismissals, and rewards and bonuses paid to employees.

The last phase was the conceptual and statistical development of the research results and the preparation and editing of an article containing the research results.

Based on the literature analysis, the main research methods were selected in order to achieve results consistent with the goals of the article:

- observation and measurement (empirical) concerning the level of innovative potential
- comparative analysis method (based on the data obtained from the companies)
- diagnostic survey method
- statistical methods for assessing the level of innovative potential, average level, and correlation.

It was considered appropriate to assess the factors influencing innovative potential according to the adopted definition of a division into knowledge, skills, and character traits (Szczepankiewicz, 2012). Within the scope of the literature review, over 100 factors were identified as influencing Innovative Potential (IP). However, it was decided that subsequent research would include the 10 most frequently highlighted factors. This concept was confirmed during the pilot study. As demonstrated by previous literature and empirical research, such a constructed analysis yields reliable and repeatable results that accurately describe innovative potential. Moreover, the ability to use the results of previous studies as a base (treating them as a control group) allowed a significant reduction in research time while maintaining high-quality outcomes.

To obtain reliable results, it was necessary to ensure complete anonymity for the respondents. A well-composed survey is a good form of research in such a case. When designing the study, possible errors affecting the results were considered – logical errors argumentum ad populum, especially argumentum ad numerum, and errors resulting from the necessity to evaluate oneself (self-valorization errors) (Kofta, Doliński, 2014). To avoid erroneous argumentation, the sample size in the study was determined based on the statistical minimum group size. To exclude



errors related to the objectivity of responses, for example, self-valorization, two versions of the survey were used in the analysis of the results. The method of two survey versions involves creating surveys in which half of the respondents assess themselves, while the other half assess other representatives of the studied group (Szczepankiewicz, 2012). An alternative would be to use an external control group, but the precision of such a solution is lower. A high level of antagonism between insurance company employees', which could affect the objectivity of the assessment of knowledge, skills, and character traits, was excluded.

The survey questionnaire began with information about the conducted study, followed by questions regarding the respondents (demographic data). The main part of the survey consisted of three sections aligned with the research assumptions (pertaining to knowledge, skills, and character traits). Each section included a set of factors to be evaluated by the respondent on a scale of 1 to 5, where 1 was the lowest and 5 the highest rating. The order of the sections was based on the difficulty level of the assessment, therefore a different order was used than in previous studies (where the order was knowledge, skills, character traits (Szczepankiewicz, 2012)). In this case, the insurance company employees assessed skills, then knowledge, and finally character traits. The reasoning behind this was that difficult questions at the beginning of the survey might have a negative effect on the respondents' further participation in the study.

The main study was preceded by a pilot study. This preliminary step determined statistically the minimum group size, established the best methods for reaching respondents in the main study, verified the lists of factors influencing innovative potential, and assessed the feasibility of using a control group. The pilot study involved 25 employees.

Among the elements of innovative potential, employees evaluated: skills (10 factors), knowledge (10 factors), and character traits (10 factors). The survey was distributed to respondents in electronic form – it was placed on a website created for this purpose by the author (www.InnoPotential.pl), and the address was sent via mailing lists.

An important issue that was addressed is the fact that innovative potential is defined in relation to the employee – it is the employee who possesses innovative potential. On the other hand, diversity refers to the team – it is a characteristic of the entire team. Referring to the adopted terminological assumptions, it was considered appropriate to compare the level of diversity in the team with the average level of innovative potential.

The verification was conducted using three methods, i.e., based on calculated correlation coefficients and standard deviation analysis. Additionally, it should be noted that the calculated correlation coefficients in all cases were positive. Since their significance was confirmed, it means that with an increase in the level of diversity of the teams, the levels of innovative potential were increasingly favorable. Of course, due to the lack of statistical significance within the calculated indicators for skills and personality, definitive conclusions should not be drawn, but rather



opinions may be expressed in this regard. The positive relationship between the studied characteristics may stem from the specifics of the industry, which places special emphasis on high standards of human resource management, including team member diversity. Finally, the surveys were verified for correct completion and the clarity of the results.

Considering the rating scale used in the study (1-5), it was determined that a difference between the studied group and the control group of 0.1 or less was completely negligible, a difference from 0.11 to 0.50 was minor, from 0.51 to 1 was moderate, and above one was significant. The difference could be positive or negative – a positive difference indicated that a particular factor was better developed in self-assessment, while a negative difference indicated an advantage of the control group. Presentation of the study results follows the order of appearance in the survey questionnaire, starting with the assessment of skills, followed by knowledge, and ending with the assessment of character traits (also known as personality<sup>1</sup>).

## 3. RESULTS

The first part of the survey examined the level of key skills relevant to the innovative potential possessed by the insurance company employees. The average rating can be seen in Table 1.

	Skill rating	Average of responses received		
No.		Employee rating	Control group rating	Difference
1	teamwork	3.14	4.09 -0.95	
2	logical thinking	4.57	4.42	0.15
3	technical proficiency	3.39	3.41	-0.02
4	cognitive flexibility (quickly changing search direction and adapting problem-solving methods to changing situations)	3.25	4.08	-0.83
5	receiving and tolerating contradictory information	4.43	4.12	0.31
6	painting and drawing	3.11	2.32	0.79
7	playing musical instruments	3.23	2.12	1.11
8	practical application of knowledge to solve problems	3.92	4.22	-0.3
9	improving the existing situation, correcting errors	4.34	4.68	-0.34
10	using foreign languages	2.49	4.41	-1.92

Table 1. Rating of skills possessed by employees

Source: author's own development based on research results.

<sup>&</sup>lt;sup>1</sup> There are terminological discrepancies regarding the scope of concepts such as character traits, personality traits, personality, and character.



The analysis should begin with the factors influencing innovative potential that were rated the highest by the employees. The highest indications were noted for logical thinking, receiving and tolerating contradictory information, and improving the existing situation and correcting errors. It is worth noting that such a set quite clearly fits the image of a legislator. Among the skills rated the lowest by the insurance company employees were: using a foreign language, generating surprising, unusual, and different ideas from those previously known. Such a set of weak factors negatively affects innovative abilities. In particular, the lack of foreign language skills has a very negative impact on innovative potential. Lastly, it is worth examining the differences in rating between the employees assessing themselves and the control group. The largest difference was noted in 'using foreign languages' – as much as 1.92 to the disadvantage of the employees assessing themselves.

The next part of the study included an analysis of the answers given concerning the knowledge possessed by the employees. It is difficult to objectively assess knowledge possessed, therefore, in this part of the study, it was extremely important to clearly formulate the knowledge areas about which the respondent should provide information. The individual average rating of knowledge resources possessed by the respondents are shown in Table 2.

Table 2. Rating of knowledge possessed by employees

No.	Knowledge rating	Average of responses received		
		Employee rating	Control group rating	Difference
1	substantive issues related to the work performed	4.52	4.23	0.31
2	current affairs (political, economic, and social)	4.29	4.13	0.16
3	new technologies	3.12	3.88	-0.76
4	IT tools	2.93	3.43	-0.5
5	available sources of information	3.04	2.88	0.16
6	culture and art	3.87	3.21	0.66
7	philosophy	3.25	2.89	0.36
8	law	4.11	3.78	0.33
9	religion and ethics	3.98	3.24	0.74
10	literature	3.71	3.68	0.03

Source: author's own development based on research results

In terms of self-assessment of knowledge, the highest averages were obtained for knowledge on substantive issues related to the work performed, current affairs (political, economic, and social), and the law. The nature of the study (employees knew they were being assessed as a group) may have had some influence on the



high rating. Analyzing this part of the results, the respondents' attitude towards the study should be taken into account as well as where the questionnaire was completed. The areas of knowledge rated the lowest by the respondents were IT tools, new technologies, and sources of information. It is worth noting that in no category did the difference between the control group and the research group exceed one. Among the biggest differences were areas of knowledge related to new technologies, religion and ethics, and culture and art. Conversely, in most categories, employees assessing themselves boasted a greater potential.

The last part of the survey examined the innovative potential in relation to character traits. Here the results were approached cautiously and carefully compared with the control group. Table 3 presents the responses obtained in the study.

Table 3. Rating of the strength of the character traits possessed by the insurance company employees

	Character trait strength rating	Average of responses received		
No.		Employee rating	Control group rating	Employee rating
1	perseverance – the tendency to repeatedly address the same topic	3.39	2.97	0.42
2	persistence – long-term work	3.89	3.44	0.45
3	independence – nonconformist attitude, not succumbing to influence	3.74	4.24	-0.5
4	openness – the ability to assimilate new information even in the face of ambiguous content	3.98	4.28	-0.3
5	imagination – ability of the mind to create images, ideas, and sensations that are not directly accessible to the senses	3.84	4.28	-0.44
6	tolerance – acceptance of novelty and otherness	3.84	4.33	-0.49
7	spontaneity – impulsive action, under the influence of the moment	3.29	3.97	-0.68
8	courage – lack of a fear of the unknown	3.39	4.44	-1.05
9	perceptiveness	3.29	4.29	-1
10	conscientiousness – performing tasks accurately 3.56		3.42	0.14

Source: author's own development based on research results.

Regarding the character traits assessed, the following were rated the highest: charisma, fidelity – not deviating from one's convictions, and resistance to stress. Again, these personality traits fit quite well into the profile of a politician. The least developed character traits included perceptiveness, spontaneity, and perseverance. The biggest differences in the assessment of character traits concerned courage,



perceptiveness, and spontaneity. Also, in the field of character traits, the innovative potential of employees assessing themselves was lower than that of the control group.

To test the adopted hypotheses, it was necessary to examine the levels of diversity in the teams studied. The research focused on the diversity of age, gender, experience, knowledge, skills, and personality. The standard deviation was treated as a measure of variability according to the formulas presented:

Sample standard deviation (1)

$$SD = \sqrt{\frac{\sum_{i=1}^{n} (X - \overline{X})^2}{N - 1}}$$

where:

SD – Standard Deviation

 $\bar{X}$  – Sample Mean

X – Subsequent observation in the sample

N – Number of individuals in the sample

Population Standard Deviation (2)

$$\sigma = \sqrt{\frac{\sum_{i=1}^{n} (X - \overline{\mu})^2}{N}}$$

where:

 $\sigma$  – Standard Deviation

 $\mu$  – Population Mean

X – Subsequent observation in the population

N – Number of individuals in the population

During the research on teams, the population standard deviation was used (since all employees of the teams participated in the study), whereas the sample standard deviation was used to examine the diversity among employees of all insurance companies – not only the insurance companies participating in the study.

The research findings regarding diversity based on age, gender, experience, knowledge, skills, and personality are presented in Figures 1-6. Note: To maintain confidentiality and prevent identification of the insurance company, the names ZU1-ZU16 were used randomly. Interpretation of these results is found in Table 7.

According to Figure 1, it can be observed that the greatest diversity, exceeding 9 years, was recorded at Institution 7, while the smallest (just under 3) was recorded



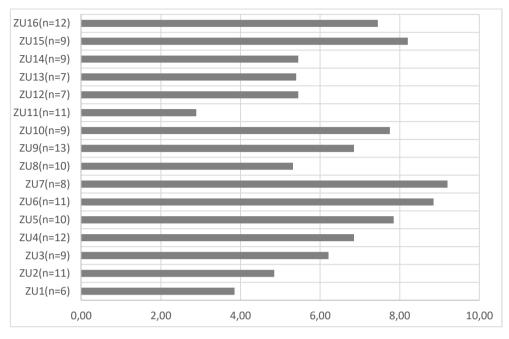


Fig. 1. Age diversity in the teams studied (author's own development based on research results)

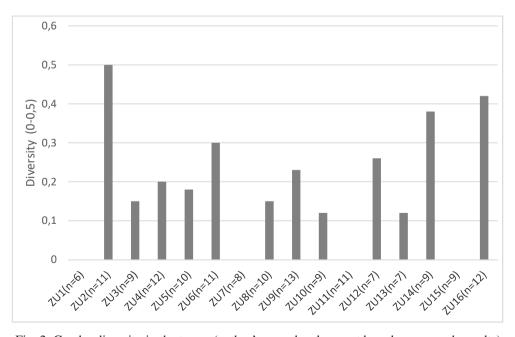


Fig. 2. Gender diversity in the teams (author's own development based on research results)



at Institution 11. Importantly, diversity in individual institutions varied significantly, which was a positive forecast in relation to the results concerning correlations and diversity and innovative potential.

Regarding gender, it can be observed that the greatest diversity occurred when the ratio of men to women in the team was 50% to 50%. Any deviation in favor of men or women lowered this result – the dominance of neither gender was interpreted separately. The highest score in this respect was achieved by ZU2 where the number of men was equal to the number of women, while the lowest was found in ZU10-0.12.

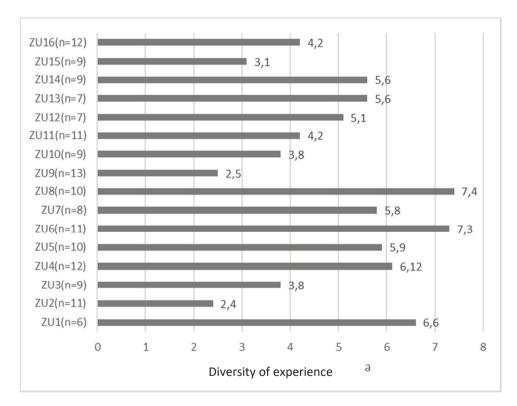


Fig. 3. Diversity of experience in the teams (author's own development based on research results)

As can be seen in the chart, the greatest age diversity was 7.4 years at Institution 8. The smallest, in turn, was 2.4 at Institution 2. Considering the previous results, however, it should be noted that there was a similarity between age diversity and experience. This is easy to explain – usually, older people have more experience, and younger people have less – this therefore affects the relation with the diversity of these two variables.



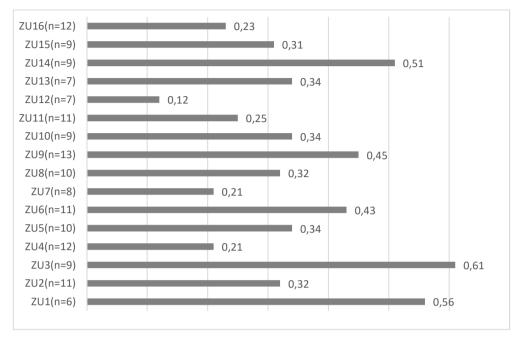


Fig. 4. Diversity of knowledge in the teams (author's own development based on research results)

At this point, it is worth referring to the diversity of knowledge. The greatest diversity, at a level of 0.61, and the smallest diversity, 0.12, was a significant distance apart (considering the scale of assessment). It is worth remembering this when interpreting the results – the population in this respect turned out to be diverse.

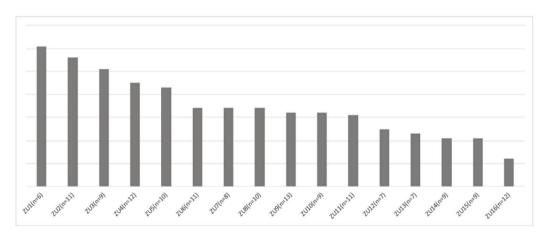


Fig. 5. Diversity of skills in the teams (author's own development based on research results)



In the insurance institutions studied, the diversity of skills measured by deviation varied – the highest deviation reached 0.61 and the lowest 0.12. However, it should be noted that the greatest diversity was recorded in the least numerous team (n = 6).

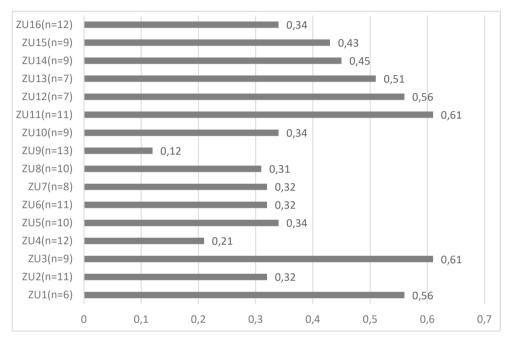


Fig. 6. Personality diversification in the teams (author's own elaboration based on research results)

During the subsequent stage of the research, the relationship between the level of diversification and the level of innovative potential was examined. The goal was to determine how the level of diversification affected the level of innovative potential, as well as the components that constituted Innovative Potential (IP). The Pearson correlation coefficient was adopted as the measure, chosen due to the type and distribution of the data. For quantitative variables with a normal distribution, the Pearson correlation coefficient is the first choice (subject to other conditions), as it determines the level of linear dependence between variables. The Pearson correlation coefficient was adopted according to the formula:

Pearson correlation coefficient between variables x and y (3)

$$r(x,y) = \frac{cov(x,y)}{\sigma_x \cdot \sigma_y}$$



przy czym

$$cov(x, y) = E(x \cdot y) - (E(x) \cdot E(y))$$

where:

– Pearson correlation coefficient between variables x and y r(x, y)

cov(x, y) – covariance between variables x and y

- standard deviation from the population

 $\boldsymbol{E}$ - expected value

For interpretation, assumptions were made according to Table 7.

Value of r (absolute values) Interpretation 0 - 0.29No or very weak correlation 0.3 - 0.49Moderate correlation 0.5-0.69 Strong correlation 0.7 - 1Very strong correlation

Table 7. Interpretation of Correlation Coefficient Magnitude

Source: assumptions based on Aczel et al., 2018.

It was assumed that only correlations above 0.5 would be interpreted as significant in the context of the research objectives – starting from correlations assessed as strong, and including correlations assessed as very strong. Based on this, correlations for individual dependencies were calculated. The results obtained are presented in Table 8 and Figure 7.

Table 8. Strength of Dependency in Absolute Values

	Dependency strength in absolute terms		Correlation
Age	0.84	0.81	Very strong correlation
Gender	0.42	0.41	Moderate correlation
Experience	0.81	0.80	Very strong correlation
Knowledge	0.63	0.67	Strong correlation
Skills	0.61	0.65	Strong correlation
Personality	0.21	0.14	No or very weak correlation

Source: author's own elaboration based on research results.



All the correlations obtained (except for personality) were characterized by a positive value. Due to the low result for personality, it was decided to present the results in absolute values. The highest dependency result was obtained for age and experience diversification, 0.84 and 0.81, respectively. However, it should be noted that these elements are interconnected – a team diversified in terms of age is often also diversified in terms of experience. However, this is not an absolute rule – in 2 insurance companies, the differences in this respect were noticeable.

## 4. SUMMARY

The aim of the article was to identify the impact of employee diversity on the innovative potential in insurance companies. The main research method was the diagnostic survey method. Based on the research findings, it was possible to demonstrate the relationship between employee diversity and innovative potential. The primary cognitive goal set at the beginning of the article has been achieved. The overarching aim of the article was to examine the role of diversity in shaping the innovative potential of insurance company employees.

Based on the respondents' results, not only in terms of assessing the individual components of innovative potential, but also their role in the enterprise, positive outcomes were visible (both in the main sample, where employees assessed themselves, and in the control sample, where they assessed other team members). This may, of course, have indicated a desire to present oneself in a favorable light (self-enhancement error).

However, an attempt was made to eliminate factors conducive to such behavior through the appropriate selection of survey studies (an anonymous survey completed via the internet).

Due to the lack of statistical significance within the calculated indicators for skills and personality, it is not possible to formulate final conclusions. However, it is possible to venture some opinions in this area. The positive relationship between the traits examined may result from the specifics of the industry, where special importance is attached to high standards of human resource management, also in terms of the diversity in these teams. It may be assumed that similar studies conducted in companies belonging to other industries might be more difficult to undertake, and the relationships less statistically tangible.

However, it should be noted that in research of this scope, it is not possible to perform analyses solely based on the available methods and to carry out analyses which may be considered objective (e.g., analysis of statistical sources). In order to expand the knowledge and fill the research space, a variety of research methods can be used. In addition, within the scope of the role of managerial actions focused on innovative potential, the studies carried out as part of this article should not be considered final and exhaustive. Indeed, there are still many areas requiring further study which could take the following form:



- a comparative analysis according to the adopted methodology in a group of companies from other industries or regions, which would allow for an assessment of the degree of development and utilization of innovative potential in different sectors of the economy and in different geographical areas; such an analysis could also provide information on best practices and methods to manage innovative potential, as well as barriers and challenges associated with its expansion and exploitation:
- a detailed analysis of the assessment of employees' innovative potential in the context of human resource management, primarily in terms of identifying those managerial actions that raise the level of IP; in this area, one could examine, among other things, the impact of motivation, training, organizational culture, remuneration system, or communication on shaping the pro-innovative attitudes and behaviors of employees, as well as their involvement in creative and innovative processes;
- raising managers' awareness of the benefits derived from skillful management of IP; for this purpose, diagnostic, educational, and advisory tools could be developed and promoted to assess the current state of IP and how it could be encouraged; workshops and conferences could also be organized or case studies prepared presenting good practices and successes achieved thanks to the effective use of IP:
- the development of tools for controlling the level of IP in insurance companies (using a dynamic approach), which would enable the monitoring of changes in this area and an assessment of the effectiveness of the actions taken; such tools could be based on quantitative or qualitative indicators or a combination of the two;
- the identification of stimulants and deterrents to innovative potential and the development of a comprehensive model of IP management in insurance companies, which would take into account the specifics of this industry and its market, legal regulations, or social environment; such a model should include strategic objectives concerning IP and define operational tasks, the responsibilities of the various entities, and mechanisms for coordination and control;
- a cost analysis of raising the level of innovative potential and research on the economic dimension; in this area, one could examine, among other things, the relationship between the expenditure incurred for the development of IP and the financial or non-financial effects obtained (e.g., improvement in service quality, and increased customer or employee satisfaction), as well as determine the optimal level of resource allocation for pro-innovative activities.

In summary, the author expresses the conviction that this work constitutes a contribution to the literature and goes some way to filling the research gap in the field of human resource management in insurance companies. It is also believed that the formulated conclusions have a utilitarian value, contributing to the development of managerial knowledge.

Furthermore, the author hopes that this work may become a source of inspiration for other researchers undertaking studies to further develop the discipline.



#### LITERATURE

- Aczel, A.D., Sounderpandian, J. (2018). *Statystyka w zarządzaniu*. Warszawa: Wydawnictwo Naukowe PWN.
- Amershi, B., Holmes, S., Jablonski, H., Keil, M., Lüthi, E., Matoba, K. (2007). *Poradnik szkoleniowy: zarządzanie różnorodnością*. International Society for Diversity Management. Pobrano z https://www.idm-diversity.org/wp-content/uploads/2018/06/Polish.pdf.
- Baruah, J., Burch, G.F., Burch, J.J. (2023). Creativity Specialization: Does Diversity in Creative Skills Matter in Team Innovation? *Small Group Research*, 54(2).
- Burch, G.J., Foo, G. (2010). Schizotypal and dependent personality characteristics and managerial performance. *Australian Psychologist*, 45(4).
- Direction (2022). Employee creativity and organizational innovation: Factors which drive enhancement. *Strateg. Dir*, 38.
- Fatima, T., Elbanna, S. (2023). Corporate Social Responsibility (CSR) Implementation: A Review and a Research Agenda Towards an Integrative Framework. *Journal of Business Ethics*, 183.
- Janssen, O. (2000). Job demands, perceptions of effort-reward fairness and innovative work behavior. *Journal of Occupational and Organizational Psychology*, 73(3).
- Kanter, R.M. (1982). The middle manager as innovator. Harvard Business Review, 60(4).
- Kofta, M., Doliński, D. (2004). Poznawcze podejście do osobowości. In: J. Strelau (red.). *Psychologia. Podręcznik akademicki*, t. 2. Gdańsk: GWP.
- Kwon, K., Kim, T. (2021). An integrative literature review of employee engagement and innovative behavior: Revisiting the JD-R model. *Human Resource Management Review*, 30(2).
- Miron, E., Erez, M., Naveh, E. (2004). Do personal characteristics and cultural values that promote innovation, quality, and efficiency compete or complement each other? *Journal of Organizational Behavior*, 25(2).
- Patterson, F., Zibarras, L.D. (2017). Selecting for creativity and innovation potential: implications for practice in healthcare education. *Advances in Health Sciences Education*, 22, 417-428.
- Rank, J., Pace, V.L., Frese, M. (2004). Three avenues for future research on creativity, innovation, and initiative. *Applied Psychology*, 53(4), 518.
- Scott, S.G., Bruce, R.A. (1994). Determinants of innovative behavior: a path model of individual innovation in the workplace. *The Academy of Management Journal*, 37(3), 580-607.
- Szczepankiewicz, M. (2012a). Badanie potencjału innowacyjnego studentów. *Prace Nau-kowe Uniwersytetu Ekonomicznego we Wrocławiu*, 245, 527-536.
- Szczepankiewicz, M. (2012b). *Factors affecting the innovative potential*. MEKON Scientific Conference Proceedings. Prague: Metropolitan University Prague, 68-82.
- Tjosvold, D. (2008). The conflict-positive organization: it depends upon us. *Journal of Organizational Behavior*, 29(1).
- Urbaniak, M. (2017). Budowanie relacji w procesach rozwoju innowacji produktowych. *Studia Ekonomiczne*, 321.
- Von Hippel, E.A. (2014). *The Sources of Innovation. University of Illinois at Urbana-Champaign's Academy for Entrepreneurial Leadership.* Historical Research Reference in Entrepreneurship. SSRN: http://ssrn.com/abstract=1496218.



- Wakelin, K. (1998). Innovation and export behaviour at the firm level. Research Policy, 26(7-8).
- Zalewski, R.I. (2009). Innowacyjność gospodarki. In: E. Skawińska, R.I. Zalewski (red.). Klastry biznesowe w rozwoju konkurencyjności i innowacyjności regionów. Polska – Europa – Świat. Warszawa: Polskie Wydawnictwo Ekonomiczne.
- Zastempowski, M. (2013). Potencjał innowacyjny małych i średnich przedsiębiorstw na tle liderów polskiej gospodarki w świetle badań empirycznych. Współczesne Zarządzanie, 2.

# WPŁYW RÓŻNORODNOŚCI PRACOWNIKÓW NA POTENCJAŁ INNOWACYJNY W ZAKŁADACH UBEZPIECZEŃ

#### Streszczenie

W kontekście polskich firm ubezpieczeniowych badania naukowe wskazują na lukę w metodologiach oceny potencjału innowacyjnego (PI) pracowników oraz znaczącą rolę strategii zarządzania w kształtowaniu go. Badanie koncentruje się na różnorodności zespołu i jej wpływie na IP, zauważając, że spośród 43-47 aktywnych firm ubezpieczeniowych tylko 18 ma zespoły skoncentrowane na produktach, z czego 16 uczestniczy w badaniu. Literatura sugeruje pozytywny związek między różnorodnością zespołu – biorąc pod uwagę wiek, płeć, doświadczenie, wiedze, umiejetności i osobowość – a PI. Celem artykułu jest wskazanie, jak różnorodność wpływa na poziom PI pracowników w firmach ubezpieczeniowych. Podkreślono potrzebę precyzyjnej definicji PI, która obejmuje wiedzę, umiejętności i cechy osobowości sprzyjające innowacjom. Podejście to unika zbyt szerokich definicji, które moga rozmyć skupienie na kluczowych cechach innowacyjnych. Wyniki badań obejmują ocenę poziomu potencjału innowacyjnego w zakresie wiedzy, umiejętności i cech charakteru oraz ocenę korelacji zróżnicowania pracowników z osiąganym poziomem potencjału innowacyjnego. W artykule wskazano także możliwości aplikacyjne i kierunki dalszych badań.

Słowa kluczowe: wiedza, pracownicy, różnorodność, innowacyjność, umiejętności, zakłady ubezpieczeń, potencjał innowacyjny, cechy charakteru, zróżnicowanie pracowników



