How Enterprises Engage Generation Z in Crowdsourcing: Differences Between Poland and Great Britain

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Abstract: Companies are increasingly using crowdsourcing to gain the knowledge, experience and creativity of a given community, commonly referred to as 'crowd wisdom'. The use of crowdsourcing on a large scale is possible thanks to the space created by the Internet and social media. This space is also an environment in which the digital Generation Z, an important partner for businesses, now comprising more than a third of the world's population, is eager to spend time. Already recognized as revolutionizing for economies and markets, this generation is the most technologically advanced of all cohorts. Previously, older generations have passed on knowledge and experience to younger generations, but now we are faced with the opposite: for the first time, the youngest generation is an authority and has a wealth of knowledge that other generations do not have. The aim of the article is to identify and assess the factors that determine the involvement of Generation Z representatives in solving enterprise problems in the form of crowdsourcing and to indicate the impact of gender and place of residence of Generation Z representatives on their involvement in this activity. Empirical studies conducted in Poland and Great Britain in 2023 using the CAWI technique and a questionnaire helped to achieve the objective of this study. The results of the survey allow to indicate the most important motives for engagement of Generation Z in crowdsourcing in both countries. Relationships between the above-mentioned motives and gender and the place of residence of members of Generation Z were also identified. The conclusions of the study are only an extension of theoretical knowledge, but also implications for managers that want to encourage members of Generation Z to cooperate on the basis of crowdsourcing.

Keywords: Crowdsourcing, Generation Z, Social Media, Enterprise, Management, Gender and Place of Residence Differences

1. Introduction

Howe defined the concept of crowdsourcing as "the act of a company or institution taking a function once performed by employees and outsourcing it to an undefined (and generally large) network of people in the form of an open call. This can take the form of peer production (when the job is performed collaboratively), but is also often undertaken by sole individuals. The crucial prerequisite is the use of the open call format and the large network of potential laborers" (Howe, 2006b). Enterprises wanting to develop are increasingly using crowdsourcing to draw on the knowledge, experience and creativity of the crowd (Benoit et al., 2022; Gu et al., 2022), expecting customers to be simultaneously involved in the relationship with the brand and strengthening the brand-client relationship (Brunneder et al., 2020; Mo et al., 2021; Fazli-Salehi et al., 2022). Today's level of digitization means that an invitation to participate in crowdsourcing can be addressed to virtually residents of any geographic location. This means that companies are eager to use this tool to solve their problems by creating innovative solutions.

The generation that is becoming an important market partner for modern enterprises is Generation Z. The role this generation plays in the market game, being an important consumer who expects products and services that strictly meet their expectations, is proven by numbers – according to a trend study conducted on markets in Australia, France, Germany, the Netherlands, Great Britain and the United States (Oxford Economics, 2021), Generation Z will become driving force of economic growth in the next 10 years. This means that Generation Z will become a very important independent source of consumer spending – Generation Z spending will support spending in the six markets mentioned above by USD 30 trillion in 2030, which means a six-fold increase compared to 2019 (Oxford Economics, 2021). Encouraging representatives of Generation Z to participate in this form of communication and cooperation with the company, on the one hand, seems to be simple - the Internet space is, for Generation Z, the environment in which it operates best of all generations, but on the other hand, it requires knowledge from the company, how to motivate representatives of Generation Z to participate in this form of activity.

The aim of the article is to identify and assess the factors that determine the involvement of Generation Z representatives in solving enterprise problems in the form of crowdsourcing. Achieving the goal will deepen knowledge and fill the research gap by identifying the factors that most determine the involvement of Generation Z representatives in solving enterprise problems in the form of crowdsourcing, as well as by

indicating the impact of gender and place of residence of Generation Z representatives on their involvement in this activity.

2. Literature Review

Building and sustaining trust-based partnerships is key to fostering growth, innovation and organizational resilience, particularly in an ever-changing business environment characterized by uncertainty and liquidity (Otola, Grabowska, Krupka, 2023). On the Internet, brand communities are formed around a given brand. The aim of these communities is not only to exchange information and views between its members, but also to interact and build relationships with a given brand (Woisetschläger, Hartleb, Blut, 2008). What features should a brand have to attract consumers and keep them in brand communities? It should have a clear, strong image, a long tradition and the ability to build bonds and relationships, which requires knowledge about the expectations, preferences and value system of members of a given community (Cova, 1997). The generation that knows and uses technology and the Internet very well to carry out everyday activities is Generation Z (Priporas, Stylos, Fotiadis, 2017). These are creative and innovative people open to new experiences. Learning, acquiring knowledge and development take place in accordance with the just-in-time principle, they want to know and have everything immediately, preferably online" (Wiktorowicz et al., 2016). Representatives of this generation are ruthless towards those companies that have failed their trust – most of them, in order to warn their friends, will very gladly pass on negative information about the company's activities or their products to them (Witek, Hall, 2016). The authors assumed 1995 (and later years) as the year of birth of people representing Generation Z (Priporas, Stylos, Fotiadis, 2017; Francis, Hoefel, 2018; Kamenidou et al., 2019), while they accepted 2009 as the last year of birth. Crowdsourcing can be an effective tool for brands to engage with their customers to solve a variety of problems, but it is not suitable for every brand. Crowdsourcing used incorrectly can harm the brand (Heidenreich et al., 2015). Crowdsourcing should be used by brands whose communities are characterized by strong bonds. Brands whose communities do not have strong ties should use crowdsourcing with great caution, considering that in this situation it may cause the crowd to turn against the brand, generating more negative than positive actions. Brands with weaker communities should focus primarily on implementing activities that will strengthen the customer's bond with the brand and/or contribute to the creation of a stronger community (Bal et al., 2017).

The concept of crowdsourcing is created by combining two words: crowd and outsourcing. This concept was first used in 2006 by Howe, which appeared in Wired Magazine (Howe, 2006a), but the idea of crowdsourcing, as Howe himself notes, can be found in the publications of Mackay (Mackay, 1841) and Surowiecki (2005). Howe's (2006a; 2006b) ideas were continued by Brabham (2008) defines crowdsourcing as "It is a model capable of aggregating talent, leveraging ingenuity while reducing the costs and time formerly needed to solve problems. Finally, crowdsourcing is enabled only through the technology of the web, which is a creative mode of user interaction, not merely a medium between messages and people". Brabham (2008), using the term "online community" in his publications, pointed to the close relationship between crowdsourcing and the Internet. Brabham and Guth (2008) found that the effectiveness of ideas presented on crowdsourcing platforms by the "online community" is influenced not only by their quality, but also by communication between the participants of this community. In cases where people creating a given community communicate with each other and discuss the ideas presented, the quality of these solutions is higher than in a situation where participants of the online community communicate only with the online platform. There are many different classifications of crowdsourcing in the literature, e.g. Howe (2008) distinguishes collective intelligence/crowd wisdom, crowd creation, crowd voting and crowdfunding.

The motives determining the involvement of Generation Z representatives in solving enterprise problems in the form of crowdsourcing, which are the subject of the authors' research, are classified in the literature in a very diverse way (Zhao, Zhu, 2014; Wijnhoven, Ehrenhard, Kuhn, 2015). The most frequently mentioned division is the division into external motives and internal motives (Ghezzi et al., 2018): (1) External motives: monetary rewards, reputation, company recognition, increase in professional status, benefits from having a job, reciprocity, responsibility and social capital, self-marketing, social motives, learning; and (2) Internal motives: entrepreneurial mindset, opportunity to express individual creativity; attachment to the group, sense of belonging, ideology; pleasure; fun and entertainment; psychological compensation and self-efficacy; social influence and social identity, information exchange; sense of cooperation; opportunity to establish new contacts; self-esteem; learning.

Zhang et al. (2022), based on the literature review, identified the 8 most significant motives for individuals engaging in crowdsourcing: 1. Cash prizes, 2. Learning or developing competences, 3. Access to a new job, 4.

Gaining reputation and recognition, 5. Taking on challenges and having fun, 6. Self-esteem, 7. Altruism, 8. Sense of belonging to a community.

The motive with the greatest impact on people's involvement in crowdsourcing is the possibility of receiving a monetary reward for presenting the best solution. Prizes and their amounts may increase the likelihood of people participating in crowdsourcing, but at the same time they will not guarantee their appropriate contribution or winning the competition (Patel et al., 2023). Some researchers advise against using monetary rewards to stimulate creativity (Hennessey, Amabile, 2010), while others argue that monetary rewards increase creativity as long as they are linked to a creativity goal (Eisenberger, Rhoades, 2001). This controversial relationship between rewards and creativity has been called the "reward paradox" in the literature (Zhou, Shalley, 2003).

The types and effects of undertaken motivating actions are not independent of each other – some motives strengthen each other, while others reduce the effect of the others. Research has shown that intrinsic and prosocial motives (e.g. motives related to having fun and helping) mutually strengthen their influence on crowd involvement in crowdsourcing problem solving, while monetary rewards combined with prosocial motivation reduce this influence (Acar, 2014). The content of the instructions explaining how to perform a given task also influences the involvement of people in solving enterprise problems in the form of crowdsourcing. Empirical results support a U-shaped relationship between the use of restrictive words and the number of participants, as well as an inverted U-shaped relationship between the use of terminology and participation (Yin et al., 2022). The literature review allows to conclude that there are no studies on the relationship between the gender and place of residence of Generation Z and the motives for this generation's participation in crowdsourcing. The authors formulated the following research questions:

Q1. Which factors most determine the engagement of Generation Z in solving enterprise problems by crowdsourcing?

Q2. Does the gender of a Generation Z representative influence his or her engagement in crowdsourcing? If so, how?

Q3. Does the place of residence of a representative of Generation Z influence his engagement in crowdsourcing? If so, how?

Q4. Is this engagement the same among the representatives of Generation Z in Poland and the Great Britain?

3. Methodology

The research on Gen Zers' attitudes towards brands on social media is a part of a broader study conducted by the authors among students in Poland and Great Britain in 2023. The research employed a combination of qualitative and quantitative approaches, utilizing survey research as an indirect measurement method. It employed survey as the research technique and survey questionnaire as the research tool. The selection of variables used in the study was based on a critical analysis of relevant literature (Gummerus et al., 2012; Gregor, Kubiak, 2014).

Regarding the birth year of Generation Z representatives, there is no consensus in the literature. The most frequently cited date is the year 1995, which the authors of the paper adopted as the cutoff year for their study. The authors also assumed that the independent variable in their study is the specific group of respondents being tested, rather than the entire population of Generation Z. Due to the challenge of definitively determining the age range of Generation Z, it becomes problematic to treat this variable as independent. However, the authors found that utilizing Generation Z as a heuristic is valuable, as generational profiling is now prevalent in popular media and popular culture, providing a descriptive framework.

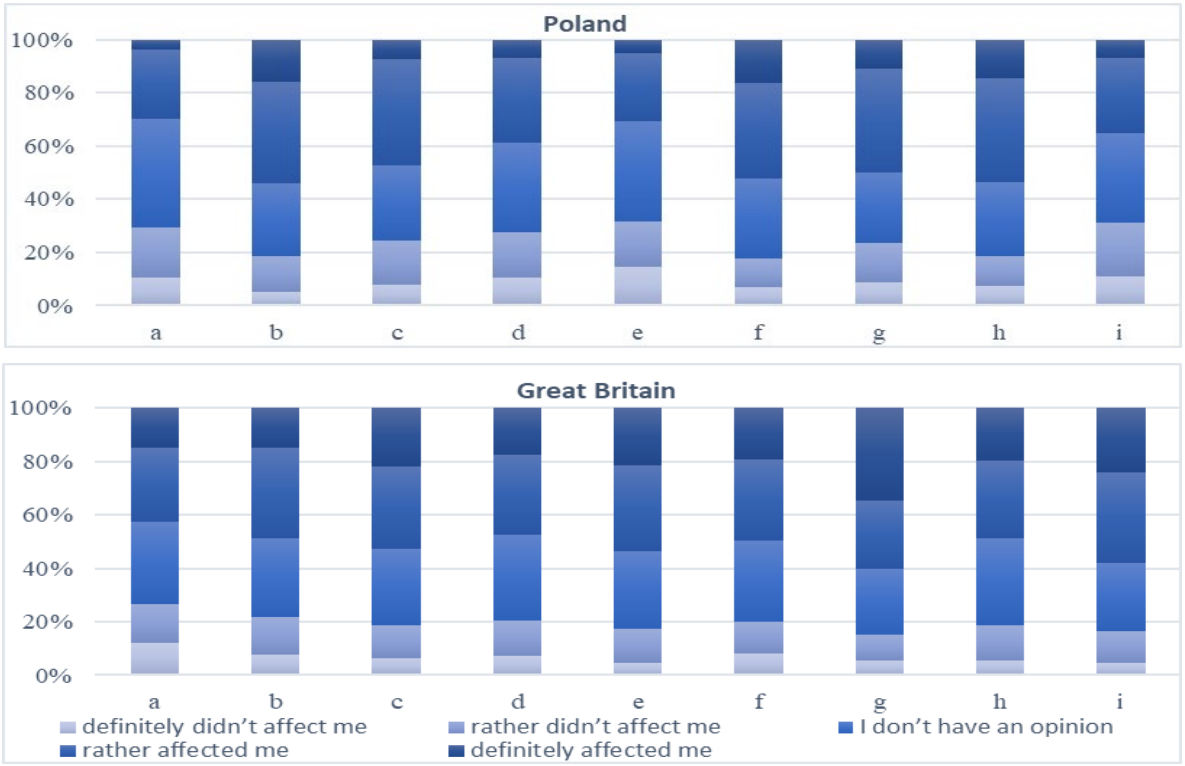
Prior to commencing the main research, the authors conducted a pilot study in 2018, enabling them to identify and rectify any errors in the survey questionnaire before proceeding with the main study. In Poland, a total of 322 students participated (166 females and 156 males), while in Great Britain, a total of 318 students participated (199 females and 119 males). The research employed the CAWI (Computer-Assisted Web Interviewing) technique. In Poland, an online survey questionnaire was administered through the Webankieta.pl platform, while data collection in Great Britain was outsourced to an external institution specializing in survey administration. It is important to note that the sampling method used in both studies was non-probabilistic. While utilizing non-probabilistic sampling, the authors employed statistical inference as an opportunity to identify relationships within the studied groups, as descriptive statistics alone would not allow for such analysis.

Based on the research results, the authors calculated the number and frequency of respondents' responses to each question in the survey. The authors are aware that the sampling technique employed does not allow for the estimation of errors that may arise when generalizing the observed patterns in the sample to the entire population. To identify potential relationships within the studied groups, the authors utilized statistical inference, for which they adopted a certain level of significance, as descriptive statistics alone cannot provide such analysis. Statistical inference was conducted with a predetermined significance level set at $\alpha = 0.05$, and a p-value was calculated for each test. Non-parametric tests were used to examine the relationship between variables: the Mann Whitney U test and Spearman's rank correlation coefficient. The authors compared the p-value with the level of statistical significance to determine whether there was sufficient evidence to reject the null hypothesis (H_0) in favor of the alternative hypothesis (H_1) ($p < \alpha$), or not ($p \geq \alpha$). All analyses were performed using Statistica software, version 13.3.

The authors acknowledge that survey research has certain limitations, such as providing only a surface-level understanding of the phenomena under study and the possibility of respondents providing inaccurate answers. One potential criticism of the presented research results is that the study was conducted on a small group of participants. While small sample sizes can raise methodological concerns, such as limitations in generalization, they can still provide valuable insights when proper statistical tests are applied for inference (Yates, 1934; Nachar, 2008).

4. Results

The presented results are a fragment of research conducted by the authors in Poland and Great Britain at the beginning of 2023. Respondents were asked the following question: "Which of the following factors will make you respond to the company's invitation addressed to a wide group of people (crowdsourcing) and solve a specific problem, e.g. come up with an improvement for a good/service, design a new function for a good/service, design a new good/service, you will come up with a new flavor or name for a good/service?. Evaluate each factor." The obtained numbers (in %) of responses in Poland and Great Britain in 2023 are presented in Figure 1.



a. Desire to interact with a favourite brand, b. Desire to receive a material prize or money, c. Desire to test your skills and knowledge in practice, d. Possibility of participating in a big project without being hired in the organisation, e. Recognition among social media users, f. Developing your own career by building a portfolio and reputation through proving participation in various projects, g. Networking, h. Sharing experiences, possibility of learning from the experience of others, i. Desire to belong to a specific group

Figure 1: Assessment of factors determining the participation of a Generation Z respondent in crowdsourcing - number of responses (in %) in Poland and Great Britain in 2023

Factors rated highest by respondents in Poland: (1) Desire to receive a material prize or money, (2) Developing your own career by building a portfolio and reputation through proving participation in various projects, (3) Networking, (4) Sharing experiences, possibility of learning from the experience of others.

Factors rated highest by respondents in Great Britain: (1) Desire to test your skills and knowledge in practice, (2) Recognition among social media users, (3) Networking, (4) Desire to belong to a specific group.

The next step was to examine whether there is a relationship between individual assessments of factors determining participation in crowdsourcing and the respondent's gender. For this purpose, non-parametric tests were used for two independent groups. These tests verify the hypothesis that the two analyzed samples come from different general populations (statistical communities). The Mann Whitney U test was used (Tables 1 and 2) because the data are measurable, but their distribution is not normal and the data are ordinal (Nachar, 2008; Walters, 2021). In the case of ordinal data, the null hypothesis (H_0) assumes that the types of distributions of the analyzed groups do not differ significantly from each other.

Table 1: Results of the Mann-Whitney U test (with continuity correction) regarding the relationship between the assessment of factors determining participation in crowdsourcing and the gender of the Generation Z respondent in Poland in 2023

Variables	Sum of ranks Male	Sum of ranks Female	U	Z	p
Desire to interact with a favourite brand & Gender	23750.5	28252.5	11504.5	-1.82	0.0692
Desire to receive a material prize or money & Gender	23775.0	28228.0	11529.0	-1.77	0.0761
Desire to test your skills and knowledge in practice & Gender	23989.5	28013.5	11743.5	-1.52	0.1303
Possibility of participating in a big project without being hired in the organisation & Gender	25083.5	26919.5	12837.5	-0.14	0.8909
Recognition among social media users & Gender	23883.5	28119.5	11637.5	-1.63	0.1023
Developing your own career by building a portfolio and reputation through proving participation in various projects & Gender	25621.5	26381.5	12520.5	0.53	0.5939
Networking & Gender	23143.5	28859.5	10897.5	**-2.56**	**0.0104**
Sharing experiences, possibility of learning from the experience of others & Gender	24245.0	27758.0	11999.0	-1.19	0.2347
Desire to belong to a specific group & Gender	24925.5	27077.5	12679.5	-0.33	0.7392

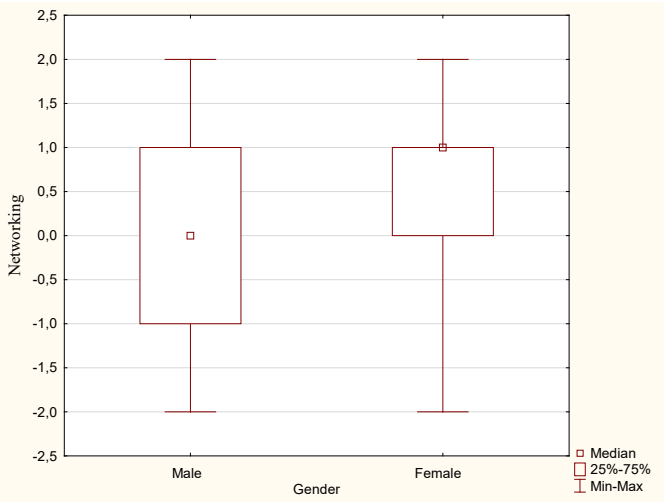


Figure 2: Assessment of the "networking" factor determining participation in crowdsourcing by Generation Z respondents by gender in Poland in 2023

The results of the Mann-Whitney U test for data from the study in Poland (Table 1) provide grounds for rejecting the assumed null hypothesis ($p > 0.05$) only in the case of assessing one factor: "networking".

Based on the adopted level of $\alpha = 0.05$, the Z statistics of the Mann Whitney U test with continuity correction, as well as on the basis of the exact U statistics, it can be assumed that there are statistically significant differences between female and male respondents of Generation Z in Poland in terms of the assessment of only one factor determining the participation in crowdsourcing. These differences consist in the fact that women rated the described factor higher than men. They can be described based on the median, quartiles and the largest and smallest values, which are also visible on the box plot chart (Figure 2).

In the case of the remaining factors mentioned, the types of distributions of the analyzed groups do not differ significantly from each other. Therefore, there is no relationship between individual assessments of factors determining participation in crowdsourcing and the gender of the Generation Z respondent in Poland in 2023.

Table 2: Results of the Mann-Whitney U test (with continuity correction) regarding the relationship between the assessment of factors determining participation in crowdsourcing and the gender of the Generation Z respondent in Great Britain in 2023

Variables	Sum of ranks Female	Sum of ranks Male	U	Z	p
Desire to interact with a favourite brand & Gender	32275.5	18445.5	11305.5	0.70	0.4857
Desire to receive a material prize or money & Gender	33241.5	17479.5	10339.5	**1.97**	**0.0486**
Desire to test your skills and knowledge in practice & Gender	31960.5	18760.5	11620.5	0.29	0.7722
Possibility of participating in a big project without being hired in the organisation & Gender	32624.0	18097.0	10957.0	1.15	0.2500
Recognition among social media users & Gender	30986.0	19735.0	11086,0	-0.98	0.3250
Developing your own career by building a portfolio and reputation through proving participation in various projects & Gender	32271.0	18450.0	11310,0	0.69	0.4890
Networking & Gender	32448.0	17955.0	10934,0	1.06	0.2889
Sharing experiences, possibility of learning from the experience of others & Gender	32928.0	17793.0	10653,0	1.56	0.1193
Desire to belong to a specific group & Gender	30824.5	19896.5	10924,5	-1.19	0.2323

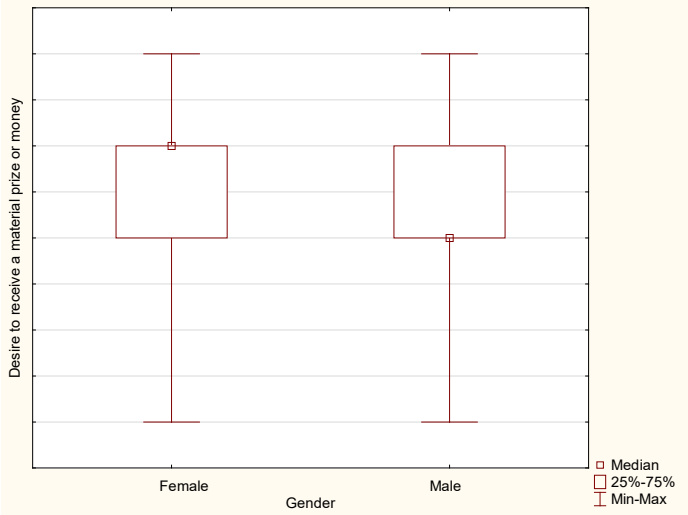


Figure 3: Assessment of the "desire to receive a material prize or money" factor determining participation in crowdsourcing by Generation Z respondents by gender in Great Britain in 2023

Based on the adopted level of $\alpha = 0.05$, the Z statistics of the Mann Whitney U test with continuity correction, as well as on the basis of the exact U statistics, it can be assumed that there are statistically significant differences

between female and male respondents of Generation Z in Great Britain in terms of the assessment of only one factor determining the participation in crowdsourcing. These differences consist in the fact that women rated "Desire to receive a material prize" higher than men. These differences can be described based on the median, quartiles and the largest and smallest values, which are also visible on the box plot chart (Figure 3).

In the case of the remaining factors mentioned, the types of distributions of the analyzed groups do not differ significantly from each other. Therefore, there is no relationship between individual assessments of factors determining participation in crowdsourcing and the gender of the Generation Z respondent in Great Britain in 2023.

The next stage of the analysis was to verify whether there is a relationship between the variables: the assessment of factors determining participation in crowdsourcing (variable X) and the respondent's place of residence (variable Y). To assess the correlation between two qualitative characteristics, the non-parametric correlation coefficient was calculated – Spearman's rank correlation coefficient (Tables 3 and 4). The Rxy coefficient calculated from the sample is an estimate of the correlation coefficient ρ in the general population, and its numerical value is a point assessment of the strength of the connection in the entire population (Akoglu, 2018; Wiśnienwski, 2014). The following set of hypotheses was verified:

$$H_0: \rho = 0$$

towards the alternative hypothesis:

$$H_1: \rho \neq 0$$

Verification of the null hypothesis helped in assessing whether the existing relationship between the studied variables (X and Y) in the sample is only accidental or may also be a regularity in the studied population.

Table 3: Spearman's rank order correlation regarding the relationship between the assessment of factors determining participation in crowdsourcing and the place of residence of the Generation Z respondent in Poland in 2023

Variables	N of valid ones	Spearman's rank R	t (N-2)	p
Desire to interact with a favourite brand & Place of residence	322	-0.0308	-0.55	0.5824
Desire to receive a material prize or money & Place of residence	322	-0.0349	-0.63	0.5323
Desire to test your skills and knowledge in practice & Place of residence	322	0.0206	0.37	0.7122
Possibility of participating in a big project without being hired in the organisation & Place of residence	322	0.0928	1.67	0.0965
Recognition among social media users & Place of residence	322	-0.0138	-0.25	0.8055
Developing your own career by building a portfolio and reputation through proving participation in various projects & Place of residence	322	0.0889	1.60	0.1114
Networking & Place of residence	322	-0.0723	-1.30	0.1954
Sharing experiences, possibility of learning from the experience of others & Place of residence	322	0.0183	0.33	0.7430
Desire to belong to a specific group & Place of residence	322	-0.0652	-1.17	0.2435

The obtained Spearman's R coefficients are not statistically significant. The analysis did not provide grounds for finding statistically significant correlations between the studied variables: the assessment of individual factors determining participation in crowdsourcing and the respondents' place of residence in Poland in 2023.

Table 4: Spearman's rank order correlation regarding the relationship between the assessment of factors determining participation in crowdsourcing and the place of residence of the Generation Z respondent in Great Britain in 2023

Variables	N of valid ones	Spearman's rank R	t (N-2)	p
Desire to interact with a favourite brand & Place of residence	318	-0.0016	-0.03	0.9773
Desire to receive a material prize or money & Place of residence	318	0.0412	0.73	0.4638
Desire to test your skills and knowledge in practice & Place of residence	318	0.0482	0.86	0.3921
Possibility of participating in a big project without being hired in the organisation & Place of residence	318	-0.0582	-1.04	0.3004
Recognition among social media users & Place of residence	318	0.0404	0.72	0.4727
Developing your own career by building a portfolio and reputation through proving participation in various projects & Place of residence	318	0.0846	1.51	0.1322
Networking & Place of residence	318	0.0662	1.18	0.2393
Sharing experiences, possibility of learning from the experience of others & Place of residence	318	0.0024	0.04	0.9665
Desire to belong to a specific group & Place of residence	318	-0.0371	-0.66	0.5103

Similarly to the coefficients calculated for data collected in Poland in 2023, the obtained Spearman's R coefficients for data obtained in Great Britain are not statistically significant ($p > 0.05$). The analysis did not provide any basis for finding statistically significant correlations between the studied variables: the assessment of individual factors determining participation in crowdsourcing and the respondents' place of residence.

5. Conclusion

The results of the conducted research allow us to conclude that representatives of Generation Z living in different countries are guided by different motives when actively participating in crowdsourcing, and that different motives are important for women and different for men. The obtained research results should also draw managers' attention to the use of non-monetary incentives towards representatives of Generation Z. Incentives in the form of rewards (material and/or monetary) turned out to be the most important motivating factor only in the group of Polish respondents.

For both representatives of Generation Z from Poland and Great Britain, non-monetary internal benefits are of great importance. The expectation of receiving a monetary reward turned out to be the most important motivating factor only in the case of representatives of Generation Z from Poland. The obtained results are identical to those of Zhang et al. (2022). For representatives of Generation Z from Great Britain, the most important motivating factor was the desire to test your skills and knowledge in practice. The positive impact of internal factors on the involvement of Generation Z representatives in crowdsourcing is identical to the research results presented in the literature on the subject, which were conducted on other groups of respondents (Brabham, 2010; Zheng et al., 2011). Women representing Generation Z in Poland rated the impact of networking on their involvement in crowdsourcing higher than men, while women representing Generation Z in Great Britain rated the desire to receive a material reward or money higher than men. The obtained results are not consistent with the research results presented in the literature on other groups of respondents (Krishnamurthy, 2006; Zheng et al., 2011; Yin et al., 2022; Patel et al., 2023).

The knowledge obtained as a result of the research will allow managers to plan and carry out activities using crowdsourcing in a way that takes into account the motives that guide representatives of Generation Z when deciding to participate in crowdsourcing. This increases the chance of engaging Generation Z representatives in solving enterprise problems.

Managers, wanting to encourage representatives of Generation Z to cooperate on the basis of crowdsourcing, should not only guarantee Polish authors of winning solutions material prizes or earnings, but at the same time create an environment enabling representatives of Generation Z to feel recognized among social media participants, as well as develop their own career path by building a portfolio and reputation as a result of

demonstrating participation in various projects. Using crowdsourcing, managers do not have to take into account the place of residence of representatives of Generation Z by city/town village if it is not the subject of cooperation.

The conducted survey research is characterized by limitations, which include, among others: the possibility of superficial knowledge of the studied phenomena, or respondents giving false answers. However, the relatively small number of respondents does not allow the obtained research results to be treated as representative. Although small samples may be methodologically questionable (e.g., generalization is difficult), they can be useful for making inferences if appropriate statistical tests are used (Nachar, 2008).

Undoubtedly, future research should be conducted on a larger sample, and quantitative research should be supplemented with qualitative research, including an explanation of the reasons for the variation in motives of Generation Z's involvement in crowdsourcing. Undertaking research in other countries would make it possible to compare crowdsourcing motives among Generation Z representatives of different nationalities and determine which of them occur regardless of geographical location.

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