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Article

Social Inclusion: A Factor That Influences the Sustainable Entrepreneurial Behavior of Generation Z

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Abstract: Young people from Generation Z are a subject of analysis for researchers because they will prevail in the labor market as successors of the Millennial generation. Taking into account the imprint that digitization has left on the behavior of Generation Z, our research aims to analyze how young people manifest their entrepreneurial intention and, mainly, how the “Me generation” perceives entrepreneurship both as a means by which they manifest their desire to control their behavior and as a factor that contributes to their social inclusion. Therefore, based on the bottom-up spillover theory, we propose to analyze the moderating effect of gender and the mediating effect of self-efficacy on the relationship between social inclusion and entrepreneurial intention. Using a quantitative research approach and a sample of 781 representatives of Generation Z, we demonstrate that social inclusion is an essential factor for Generation Z. The findings prove that Generation Z manifests a strong desire for social inclusion, which influences entrepreneurial intention, and that gender moderates this relationship. Finally, the originality of our research consists of the empirical identification of the synergy between entrepreneurial intention, self-efficacy, and the desire for social inclusion of Generation Z.

Keywords: Generation Z; entrepreneurial intention; self-efficacy; social inclusion; bottom-up spillover theory; gender



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1. Introduction

Why Generation Z? The answer is motivated by the controversial characteristics of this generation, which is perceived as a Facebook generation (Nagy and Kolcsay 2017). First, Generation Z is framed differently in time and there is no unanimity. Thus, Turcic (2022) considers that representatives of Generation Z were born between 1995 and 2010; other sources indicated that 1997–2012 was the period in which Generation Z was born (Eldridge 2024). This particularity led us, for our research, to consider young people born between 1997 and 2004 who, at the beginning of 2023, had a minimum age of 18 years and a maximum age of 26 years as a target group.

Internet and social media are omnipresent in the life of Generation Z. Therefore, we considered it essential to analyze the role that social inclusion has in shaping their entrepreneurial orientation and in promoting self-efficacy because this generation is different from previous generations, more chosen by promoting communication strategies that eliminate physical boundaries between people but also by their ability to carry out several activities at the same time (i.e., combining physical activities in the real world with activities in the virtual world).

Research on Generation Z has shown that socialization is essential for these young people who are under the influence of social networks and, therefore, social inclusion, responsibility, and loyalty contribute to the development of the entrepreneurial spirit in agreement with social innovation (Bridge 2015; Seemiller and Grace 2019).

Moreover, social innovation is considered a main factor that influences an organization's or community's sustainability because it has the potential to provide viable solutions for some social problems (Burlea-Schiopoiu and Remme 2017; Idowu et al. 2017).

Researchers (Broke 2023; Dreyer and Stojanová 2023; Half 2015; Patel 2017; William 2016) comparing Generation Z with previous generations observed that even though Generation Z members want stability and do not accept uncertainty, they are much more marked by the entrepreneurial spirit and show a greater interest in the business environment due to their orientation towards clear objectives and the harmonious combination of personal and professional life.

The sustainable development of organizations and society depends on how they capitalize on the entrepreneurial skills of Generation Z. The particularities of Generation Z regarding the belonging of a specific gender are the subject of research related to the rights of sexual minorities (i.e., transgender people). Twenge (2023), analyzing the attitude of Generation Z youth towards sexual minorities, concluded that young people in the USA increasingly support the rights of transgender people. Jones et al. (2019) surveyed youth and observed that 68% of female respondents and 57% of male respondents feel comfortable around a close friend who is transgender.

Ciobanu (2019), in March 2019, conducted a study on 1954 Internet users to evaluate Romanians' opinions on entrepreneurship. Since no information was provided about the sample structure, we cannot make a hypothesis about Generation Z but as it was mentioned that the respondents are Internet users, we can assume that among the respondents, there were also members of this generation. The conclusion of the study is optimistic because 70% of respondents believe that entrepreneurship is an activity that can lead to Romania's economic growth (Ciobanu 2019).

Another study carried out in 2022 by Provident (a financial institution that offers its services to economically and/or socially vulnerable groups of Romanians) and which was entitled The Invisibles, concluded that small entrepreneurs at risk of poverty and social exclusion represent one of the six vulnerable groups in Romania, along with subsistence farmers, single-parent families, black workers, the unemployed between 55 and 64 years old, and pensioners at risk of poverty and social exclusion.

Zamfirache et al. (2023) conducted a study to evaluate the relationship between students' interest in entrepreneurship and the funding sources available to them for starting a business and they observed that European funds represent the most attractive funding source for students who want to become entrepreneurs. Therefore, social inclusion and self-efficacy represent strong motivations to overcome financial barriers.

Ilieș et al. (2023) carried out research on the entrepreneurial intention of respondents divided into two groups (i.e., with economic background and without economic background) and came to the conclusion that the entrepreneurial vocation is not sufficient for the development of entrepreneurial intention because it must be supported by solid knowledge in the entrepreneurial field and by a public policy that offers real opportunities for entrepreneurs.

The GEM (Global Entrepreneurship Monitor) (2023) places Romania in income group Level B (i.e., the GEM established three levels: Level A: Economies with a gross domestic product (GDP) per capita of more than \$50,000; Level B: Economies with a GDP per capita of between \$25,000 and \$50,000; and Level C: Level C Economies with a GDP per capita of less than \$25,000). The results of the study mention that 45.5% of respondents know an entrepreneur who has started a business in the past two years (GEM (Global Entrepreneurship Monitor) 2023, p. 37), 55.7% of respondents consider that in Romania, it is easy to start a business, and only 36.0% respondents affirm that in the next six months, there will be good opportunities to start a business (GEM (Global Entrepreneurship Monitor) 2023, p. 38). We observe a relatively low concern of Romanians about starting a business and the analysis of the entrepreneurial intention of Generation Z can provide us with some clues to Romanians' reluctance to do so. The study of the particularities of Generation Z in an entrepreneurial context is necessary for both theory and practice because social

networks, the Internet, and artificial intelligence have left their mark on the skills of this generation (Al-Sharafi et al. 2023; Lesinski et al. 2023).

This research aims to evaluate the moderating effect of gender on the relationships between social inclusion and entrepreneurial intention. Therefore, our study contributes to expanding the specialized literature in the following ways. First, based on the bottom-up spillover theory, we developed a predictive model for decision-makers to better understand the need to know the particularities of Generation Z.

Our research's originality consists of empirically identifying the synergy between entrepreneurial intention, self-efficacy, and Generation Z youth's desire for social inclusion.

2. Literature Review and Hypotheses Development

2.1. The Bottom-Up Spillover Theory

According to the bottom-up spillover theory (Andrews and Withey 1976), the overall life satisfaction of members of Generation Z is influenced by internal and external motivational factors that strongly impact their entrepreneurial intention.

An advantage of the bottom-up spillover theory is that many factors influence individuals' general satisfaction (Sirgy 2002). In our research, social inclusion influences how self-efficacy is manifested, leading to sustainable sedimentation of entrepreneurial intention. The importance of entrepreneurship as a field of activity that influences the quality of life of community members and not only members of Generation Z is unanimously recognized (Peters et al. 2019; Zheng and Liang 2023). Therefore, life satisfaction is influenced by satisfaction with entrepreneurial results, which is reflected in satisfaction with the community through social inclusion and self-efficacy.

Based on the bottom-up spillover theory, we will evaluate the impact that social inclusion, as a factor that measures the quality of life of the members of Generation Z, has on their entrepreneurial intentions and, according to Le et al. (2015), the need for belonging, manifested through social inclusion, is a determining factor of overall life satisfaction because it generates satisfaction and happiness.

Based on the bottom-up spillover theory, entrepreneurial intention can be considered as support for promoting Generation Z's social inclusion and self-efficacy.

2.2. Social Inclusion

Individuals need to be socially included and social interaction and emotions generated by social networks are indicators of social belonging that lead to satisfaction and happiness (Baumeister and Leary 1995). Therefore, social inclusion is considered to be an essential component of individuals' belonging to a community (Malone et al. 2012) and, in our case, the desire to belong to Generation Z is linked, on the one hand, to the entrepreneurial community and, on the other another hand, to different communities created on social networks. Cordier et al. (Cordier et al. 2017) observed no standard definition of social inclusion at the individual level. As a result of their research, they emphasized the importance of participation, social connection, sense of belonging, and responsibility in defining the subjective and objective elements of social inclusion (Balan and Burlea-Schiopoiu 2017).

Malone et al. (2012) demonstrated that belonging is conceptually distinct from the need to belong. In the case of Generation Z, their personality traits motivate them to show the desire to value their belonging, namely belonging to the Internet community, and claim social inclusion as members of social networks.

Keeping in mind that no comprehensive research investigates how entrepreneurial intention can be influenced by the social inclusion of Generation Z, we wanted to fill this gap and come up with a dominant characteristic of Generation Z, namely self-efficacy.

2.3. Self-Efficacy

Self-efficacy is perceived as a person's conviction that through their skills, they can achieve a specific objective oriented on three dimensions that depend on the particular level of task difficulty, the certainty that a task will be successfully performed regardless of

its difficulty, and the degree of generality of tasks (Bandura 1977) and is directly correlated with entrepreneurial intention (Sequeira et al. 2007). Self-efficacy positively impacts the development of entrepreneurial intentions and individual actions or behaviors (Boyd and Vozikis 1994).

The lack of satisfaction in the individual's activity often leads to high self-efficacy, which manifests in entrepreneurial behavior. Therefore, on the one hand, according to the research carried out by Chen et al. (1998), entrepreneurs show higher self-efficacy than managers and on the other hand, some researchers have established a link between self-efficacy and career choice (Kolvereid 1996; Lent and Hackett 1987).

Cassar and Friedman (2009) consider self-efficacy as a feeling that depends on the person's belief regarding the relationship between how he performs an activity that responds to her/his expectations and goals.

Self-efficacy, through contributing to the achievement of the objectives set by an individual, even if he is in problematic situations or even achieves a failure in the first phase, can be considered a factor of sustainability and perseverance. Moreover, self-efficacy, which at first evaluation involves a certain amount of selfishness, can be considered as being in contradiction with social inclusion, which translates into the acceptance of the individual in a specific community, but on closer analysis, a profound interconnection is observed between self-efficacy and social inclusion because both are based on personality and on the objective assessment of the personal capacity to put into practice one's commitments to the established objectives.

2.4. Entrepreneurial Intention

Individuals' entrepreneurial intentions (EI) influence how young Generation Z people perceive the importance of entrepreneurship in their social integration and promoting self-efficacy. Entrepreneurial intention, in addition to representing the desire of an individual to launch a new business, is also a state of mind that contributes to starting a new business (Afolabi et al. 2017). Therefore, entrepreneurial intention is a conscious action and a cognitive process that contributes to the launch of a new business, especially for Generation Z, which is guided by the information it finds on social networks.

Ajzen and Sheikh (2013) consider entrepreneurial intentions to be a predictor for measuring entrepreneurial behavior but entrepreneurial intentions only sometimes generate entrepreneurial action (Neneh 2019). Therefore, depending on the particularities of Generation Z, it is important to connect social inclusion and self-efficacy to offer new theoretical and practical perspectives.

The desire for social inclusion of members of Generation Z differs according to gender, which led us to explore the role of self-efficacy as a mediator between the desire for social inclusion and the need to put into practice their entrepreneurial orientation.

As a result of the previous research, we developed the following hypotheses:

H1: Self-efficacy directly influences entrepreneurial intention ($SE \rightarrow EI$);

H2: Social inclusion directly influences entrepreneurial intention ($SI \rightarrow EI$);

H3: Social inclusion directly influences self-efficacy ($SI \rightarrow SE$);

H4: Self-efficacy mediates the relationship between social inclusion and entrepreneurial intention ($SI \rightarrow SE \rightarrow EI$);

H5: Gender moderates the relationship between social inclusion and entrepreneurial intention ($Gender \times SI \rightarrow EI$).

Figure 1 depicts the mediating–moderation relationship.

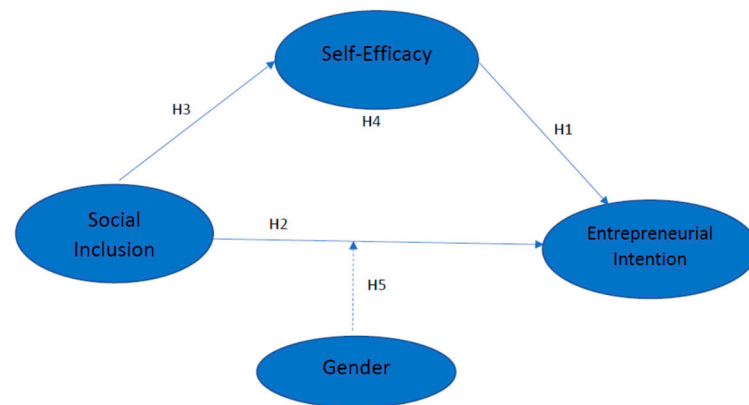


Figure 1. The research mediating–moderating model.

3. Methodology

In our research, we used a quantitative method and partial least squares structural equation modeling (PLS-SEM) was chosen to test our composite-based model and to understand the causal–predictive logic of the moderation–mediation relationships between the theoretical constructs (Hair et al. 2022). The study was conducted in Romania using Google Forms, an online survey platform, and data were collected in the second quarter of 2023. The study participants were informed about the research aims and we guaranteed their anonymity to obtain the most correct answers. Therefore, the informed consent was in line with the ethical principles of the research.

To ensure that only members of Generation Z will respond to the survey, we placed the following question at the beginning: Do you fall into the target age group between 18 and 26 years old? If the answer was YES, the respondents, if they wanted, could continue filling in the questionnaire, and if the answer was NO, the questionnaire closed automatically.

The final sample size was 781 members of Generation Z because out of the 822 questionnaires, 41 questionnaires were incomplete. Table 1 depicts the profile of the sample in detail.

Table 1. Descriptive statistics and the profile of respondents.

Variable	N	%	Mean	Standard Deviation
Gender	781	100	1.57	0.495
Male	335	42.9		
Female	446	57.1		
Age	781	100	23.39	1.690
21	148	19.0		
22	118	15.1		
23	145	18.6		
24	135	17.3		
25	123	15.7		
26	112	14.3		
Education	781	100	1.38	0.485
High school	486	62.2		
University degree	295	37.8		
Residence	781	100	1.44	0.497
Urban	438	56.1		
Rural	343	43.9		
Occupational status	781	100	1.90	0.800
Employed with higher education	294	37.6		
Employed with secondary education	274	35.1		
I never had a job	213	27.3		

The measurement scales were constructed based on theoretical considerations and practical findings of the authors preoccupied with entrepreneurship and Generation Z.

Social inclusion was adapted from [Altinay et al. \(2023\)](#), self-efficacy was based on [Chen et al. \(2001\)](#) and on [Jerusalem and Schwarzer \(1992\)](#), and entrepreneurial intention was adapted from [Liñán and Chen \(2009\)](#).

The scale items are shown in Appendix A.

Based on [Kock's \(2015\)](#) criterion that recommends VIF scores below 3.3, we observed that the minimum value was 1.208 (SE6) and the maximum value was 2.833 (EI4), values below the threshold of 3.3. In conclusion, this study's common bias is not meaningful (see Appendix A).

As we mentioned above, the primary objective is prediction and the theoretical model is complex; we used the statistical software SmartPLS®4.0.9.9 ([Ringle et al. 2023](#)) and partial least squares structural equation modeling (PLS-SEM) was employed as the data analysis technique ([Hair et al. 2022](#)).

4. Results

As the first stage of the measurement model, we evaluated its reliability and validity (Table 2).

Table 2. Reliability and convergent validity.

Construct	Loading	Cronbach's Alpha	Composite Reliability	AVE
Entrepreneurial intention (EI)		0.901	0.910	0.668
EI1	0.824			
EI2	0.745			
EI3	0.849			
EI4	0.839			
EI5	0.828			
EI6	0.815			
Self-efficacy (SE)		0.845	0.920	0.543
SE1	0.747			
SE2	0.782			
SE3	0.758			
SE4	0.705			
SE5	0.706			
SE6	0.721			
Social inclusion (SI)		0.830	0.845	0.746
SI1	0.887			
SI2	0.878			
SI3	0.825			

Analyzing the table above, we observe that the loadings of the indicators were above the recommended threshold (0.700) and ranged between 0.705 and 0.887. The AVE value for each construct ranges from 0.543 to 0.746, above 0.50 ([Fornell and Larcker 1981](#)). The reliability and convergent validity (AVE) values prove that all recommended criteria are met.

Discriminant validity was determined using two criteria: Fornell–Larcker (Table 3) and the Heterotrait–Monotrait Ratio—HTMT (Table 4).

Table 3. Discriminant validity—Fornell–Larcker criterion.

	EI	GENDER	SE	SI
GENDER	0.817			
SE	0.029	1.000		
SI	0.272	−0.043	0.737	
GENDER × SI	0.262	−0.104	0.703	0.864

Table 4. Discriminant validity—heterotrait–heteromethod (HTMT).

	EI	GENDER	SE	SI
GENDER	0.039			
SE	0.277	0.057		
SI	0.295	0.118	0.707	
GENDER × SI	0.084	0.030	0.066	0.089

Analyzing the table above, it is evident that the square root of AVE in every latent variable is more than other correlation values among the latent variables (Fornell and Larcker 1981).

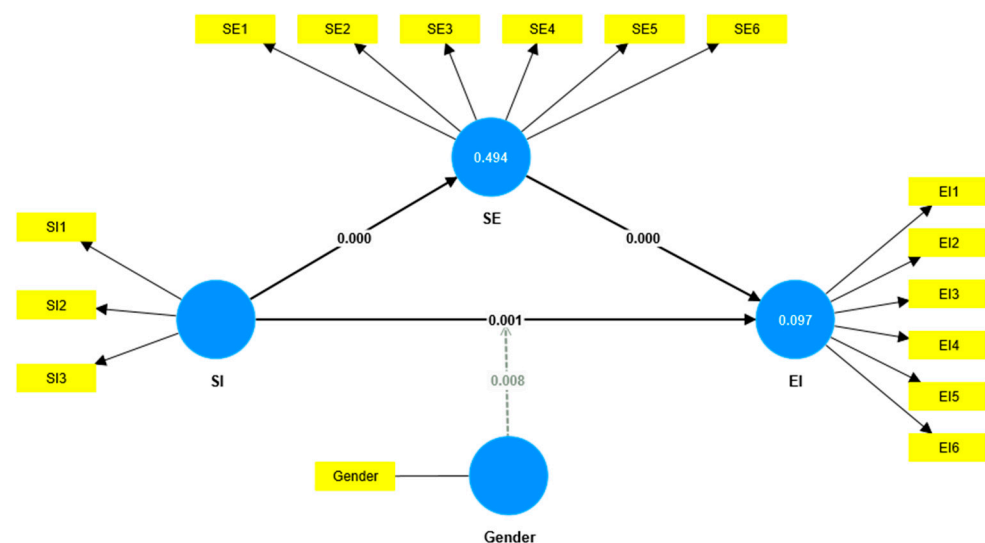
The values of HTMT are all under the threshold of 0.90 and prove the discriminant validity of our reflective construct.

We evaluated the structural model to assess collinearity, statistical significance, and the relevance of structural relationships and out-of-sample prediction (PLSpredict).

We checked if the Q2 predict values were all positive and if the items of the variables were all positive ($Q2_{predict} > 0$) and we observed that that occurs in our case because the values of Q2 predict for the variables range from 0.028 to 0.063 for EI and from 0.078 to 0.608 for SE.

We found that the prediction errors are symmetrically distributed and because the asymmetric absolute value is less than 1, we used the root-mean-square-error (RMSE) as a criterion for the prediction error (Hair and Sarstedt 2021). Therefore, our structural model has sufficient predictive power and indicates its value for making efficient individual and organizational decisions (Shmueli et al. 2019).

Figure 2 and Table 5 provide the validation of our hypotheses.

**Figure 2.** The results of the mediating–moderating model.**Table 5.** Hypotheses testing.

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (O/STDEV)	p Values	Status
H1: SE → EI	0.168	0.170	0.045	3.727	0.000	Approved
H2: SI → EI	0.158	0.158	0.050	3.178	0.001	Approved
H3: SI → SE	0.703	0.704	0.012	58.702	0.000	Approved
H4: SI → SE → EI	0.118	0.119	0.031	3.774	0.000	Approved
H5: Gender × SI → EI	−0.104	−0.102	0.039	2.652	0.008	Approved

5. Discussion

All five hypotheses were validated and it is a starting point for future research that involves the particularities of generations Z and alpha in the context of the large-scale promotion of artificial intelligence.

H1 proves that self-efficacy influences entrepreneurial intention and it agrees with Rauch's (2014) findings that relate self-efficacy to some traits of entrepreneurs and their intention to become potential entrepreneurs.

Turcic (2022) concluded that, from the point of view of gender, there are no statistically significant differences between women and men in terms of entrepreneurship intentions and perceived behavior control. However, regarding attitudes towards entrepreneurship and subjective norms, there were differences between women and men in that women manifested a higher attitude than men.

According to Eysel and Vatansever Durmaz (2019), entrepreneurial intention is influenced both by personal attitude (i.e., the respondents consider that being an entrepreneur is an attractive option that brings them, on the one hand, satisfaction, the other hand, it brings them more advantages than disadvantages), as well as perceived behavioral control (i.e., the respondents believe that they can control the creation process of a new firm because, in the case of young people from Generation Z, thanks to computer skills and social networks, they have access to information and can inform themselves in real time about the necessary stages to start a firm and to develop an entrepreneurial project). Therefore, Elfving et al. (2009), on the one hand, emphasized the role of self-efficacy in the development of entrepreneurial intentions, which confirms our findings, and on the other hand, that social norms have a non-linear effect on entrepreneurial intentions. Another conclusion of the study undertaken by Eysel and Vatansever Durmaz (2019) demonstrates that subjective norms do not influence entrepreneurial intention because young people, when they decide to become entrepreneurs, do not need the approval of family, friends, or colleagues, which is not in agreement with the results of our research that prove the desire for social inclusion of Generation Z youth in that social inclusion directly and positively influences their entrepreneurial intention (i.e., the validation of Hypothesis H2).

Zanabazar and Jambal (2023) observed that personal attitudes and subjective norms influence entrepreneurial intention, while perceived behavioral control is not a factor that significantly influences students' entrepreneurial intention, which agrees with the validation of hypothesis H3. Our research results agree with those of Rajchert et al. (2023), who concluded that social inclusion leads to increased self-efficacy.

We consider that in different cultural environments (i.e., Turkey and Mongolia), the factors influencing entrepreneurial intention differ according to each country's economic and cultural opportunities. Finally, we observe that, in both cultural environments, entrepreneurial intention is influenced by personal attitudes, which underlines the omnipresence, regardless of the cultural environment, of some characteristics of Generation Z, namely entrepreneurship, trust, tolerance, and optimism (Schawbel 2014).

The findings of Ilies et al. (2023) prove significant differences regarding self-efficacy between people with and without economic backgrounds. They consider that these differences come from the need for more specialized knowledge in entrepreneurship, knowledge acquired in specialized courses in the economic field.

Our findings suggest that social inclusion directly affects self-efficacy and that gender does not represent a potential moderating factor in the relationships between these two variables. Therefore, by empirically evaluating these relationships, our study provides decision-makers in organizations with helpful information about how the desire to belong among Generation Z members potentiates their self-efficacy and entrepreneurial intention in an organizational context.

The mediating effect of self-efficacy in an entrepreneurial context has yet to be assigned studies for Generation Z. However, self-efficacy strongly moderates entrepreneurial intention and perceived desirability (Lee et al. 2011). However, the need for power and entrepreneurial intention, whose effects mutually reinforce each other (Lin and Si 2014), even

if moderation of self-efficacy on the relationship between the institutional environment and entrepreneurial intention is negative. However, self-efficacy and institutional environment can substitute for each other.

In our case, results from assessing the proposed moderating effect of gender on the relationship between SI and EI were significant ($p = 0.008$) and Hypothesis 5 (H5) was supported. Considering the particularities of Generation Z and the moderation effect of gender, the relationship between social inclusion and entrepreneurial intention will decrease in the case of the males' involvement in entrepreneurial activities. It will increase in the case of female involvement in entrepreneurial activities.

Hamdani et al. (2023) concluded that social inclusion has a significant influence on women's entrepreneurial intention and that gender stereotypes and social support have a significant effect on self-efficacy.

Stead (2017), analyzing the importance of belonging for women in an entrepreneurial context, identified five forms of performance of belonging by women (i.e., proxy, concealment, modeling the norm, tempered disruption, and identity-switching) because belonging for women entrepreneurs is a factor necessary for the development of self-efficacy.

The findings of Bazan et al. (2020) demonstrated that social entrepreneurial intention is different for male and female students and they also proved that the university's environment and support system affect female students more than male students.

Our findings are in agreement with the results of Wennberg et al. (2013), who observed that self-efficacy differs between females and males but are in contradiction with those of Caliendo et al. (2023), who concluded that self-efficacy is equally distributed between female and male entrepreneurs. Newman et al. (2019) believe that the difference between males and females related to self-efficacy is caused by the fact that women have less entrepreneurial experience than men. Our gender-related findings agree with those of the GEM (Global Entrepreneurship Monitor) (2023, p. 42), which demonstrates that women are more pessimistic than men regarding the opportunity to start a business because they believe it might fail.

Generation Z females are still influenced by the desire for social inclusion regardless of whether the entrepreneurial activity occurs in the real world or the virtual environment. This finding proves that in the entrepreneurial field, gender differences are not yet blurred, nor are they strongly affected by the virtual environment or social networks. Managers and decision-makers must consider this particularity and allow women to feel included in a community to maximize their entrepreneurial skills.

Finally, an argument that led to the choice of the variables of our research model was provided by the study carried out by Provident (2022), whose findings proved that small entrepreneurs have a positive image among the members of their community but also a particular self-esteem with all that Iliş et al. (2023) observed that social evaluation negatively influences entrepreneurial intention. Moreover, our results agree with those of the study undertaken by Ciobanu (2019) and reinforce the conclusion that Romanians who have had or have a job are eager to become entrepreneurs.

5.1. Theoretical Contributions

This study contributes to the specialized literature in entrepreneurship because the PLS-SEM theoretical model contains moderation variables (gender moderates the relationship between social inclusion and entrepreneurial intention) and mediation (self-efficacy mediates the relationship between social inclusion and entrepreneurial intention).

Another contribution of our research is the application of bottom-up spillover theory in the context of Gen Z's entrepreneurial intention, as this theory has been predominantly used in tourism and travel research.

5.2. Practical Implications

The practical implications of our study consist of perspectives offered on the importance of the factors that influence the entrepreneurial intention of Generation Z, especially

the moderating effect of gender, which contributes to making strategic managerial decisions regarding the consolidation of the role of social inclusion of the Generation Z in the awareness and the development of the entrepreneurial intention of the members of this generation.

Even if, in the last three years, the Romanian entrepreneurial environment has improved somewhat through the promotion of governmental entrepreneurial programs that have facilitated the transfer of knowledge and laid the foundations of commercial and professional infrastructure, continuous efforts must be made to develop the entrepreneurial intention by proving real support from national bodies and other decision-makers.

According to the [GEM \(Global Entrepreneurship Monitor\) \(2023, p. 43\)](#), less than 10% of Romanian respondents intend to start a business in the next three years, which raises serious question marks for national bodies that must be involved in the development of public policies to support the development of entrepreneurship, especially among young people, herein also including Generation Z. Therefore, in addition to creating a stable financial environment, aspects of social inclusion must be strengthened both in the real environment but especially in the virtual environment, because Generation Z is an Internet generation that is much more familiar with artificial intelligence than Generation X or Y.

On the other hand, less than 2% of Romanian respondents are willing to invest in someone else's new business ([GEM \(Global Entrepreneurship Monitor\) 2023, p. 44](#)), which proves that at the national level, the decision-makers with responsibilities in the entrepreneurial field must become involved in the development of the culture of entrepreneurship by creating an entrepreneurial educational environment that addresses all Romanians, regardless of age, background, gender, or education.

6. Conclusions

In our research, we aimed to analyze the moderating effect of gender and the mediating effect of self-efficacy on the relationship between social inclusion and entrepreneurial intention based on the theoretical elements of the bottom-up spillover theory. Based on the bottom-up diffusion theory, we concluded that social inclusion positively impacts the entrepreneurial intention of Generation Z and self-efficacy is a strong mediator of this relationship. Therefore, our study offers a new approach to the particularities of Generation Z that combines the desire for independence and control with the need for social inclusion. Moreover, the research results offer practical insights for policymakers and other decision-makers who must develop and implement strategies aimed at enhancing the entrepreneurial skills of Generation Z according to the challenges launched by artificial intelligence and the expectations of the members of this generation.

Attracting and effectively hiring members of Generation Z requires a flexible structure of entrepreneurial strategies because the values and expectations of this generation are strongly related to the virtual world.

Our study is subject to limitations. First, the limitation is related to geographical area because the sample is based on Romanian Generation Z members. Therefore, future research will be oriented to analyzing the entrepreneurial intentions of Generation Z in other countries. Second, we only used gender as a moderator variable between social inclusion and entrepreneurial intention and the other control variables (e.g., education, residence, and occupational status) were analyzed as correlations.

For future research, we will direct them to the analysis of the impact that artificial intelligence and especially the Metaverse has on the manifestation of entrepreneurial intention in the context in which the conduct of business will be transferred, for the most part, to the virtual environment.

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Appendix A

Measurement scale.

Variables	VIF
Social inclusion adapted from Altinay et al. (2023) on a 5-point Likert scale (1 = Strongly Disagree to 5 = Strongly Agree)	
SI1: I feel included when interacting with other entrepreneurs on social networks such as LinkedIn, Facebook, and Instagram.	1.978
SI2: I feel like I belong to the entrepreneurial community.	2.166
SI3: I feel a connection with other entrepreneurs on social networks when we advocate for the same social cause.	1.729
Self-efficacy was adapted from Chen et al. (2001) on a 5-point Likert scale (1 = Strongly Disagree to 5 = Strongly Agree)	
SE1: I will be able to achieve most of the goals that I have set for myself.	2.019
SE2: When facing difficult tasks, I am certain that I will accomplish them.	2.086
SE3: In general, I think that I can obtain outcomes that are important to me.	2.145
SE4: I will be able to successfully overcome many challenges.	2.423
SE5: Compared to other people, I can do most tasks very well.	2.321
SE6: Even when things are tough, I can perform quite well.	1.208
Entrepreneurial intention was adapted from Liñán and Chen (2009) on a 5-point Likert scale (1 = Strongly Disagree to 5 = Strongly Agree)	
EI1: I am ready to do anything to be an entrepreneur.	2.288
EI2: My professional goal is to become an entrepreneur.	1.949
EI3: I will make every effort to start and run my own firm.	2.781
EI4: I am determined to create a firm in the future.	2.833
EI5: I have very seriously thought of starting a firm.	2.539
EI6: I have the firm intention to start a firm someday.	2.097

References

- Afolabi, Michael Oluseye, Kareem Fatai Adebayo, Okubanji Idowu Olulano, Ogunbanjo Olufunmilola Adesola, and Aninkan Olubukola Omonike. 2017. Effect of entrepreneurship education on self-employment initiatives among Nigerian Science & Technology students. *Journal of Education and Practice* 8: 44–51.
- Ajzen, Icek, and Sana Sheikh. 2013. Action versus inaction: Anticipated affect in the theory of planned behavior. *Journal of Applied Social Psychology* 43: 155–62. [\[CrossRef\]](#)
- Al-Sharafi, Mohammed A., Mostafa Al-Emran, Ibrahim Arpacı, Noorminshah Iahad, Adi Ahmad AlQudah, Mohammad Iranmanesh, and Noor Al-Qaysi. 2023. Generation Z use of artificial intelligence products and its impact on environmental sustainability: A cross-cultural comparison. *Computers in Human Behavior* 143: 107708. [\[CrossRef\]](#)

- Altinay, Levent, Zaid Alrawadieh, Oto Hudec, Natasa Urbančiková, and Hasan Evrim Arici. 2023. Modelling social inclusion, self-esteem, loneliness, psychological distress, and psychological resilience of refugees: Does hospitableness matter? *Journal of Business Research* 162: 113901. [CrossRef]
- Andrews, Frank M., and Stephen B. Withey. 1976. *Social Indicators of Well-Being*. New York: Plenum Press. [CrossRef]
- Balan, Dragos Alexandru, and Adriana Burlea-Schiopoiu. 2017. The development of a corporate reputation metric: A customer perspective. In *Major Challenges of Today's Economy*. Edited by Florina Pînzaru, Alexandra Zbucnea, Constantin Brătianu, Elena-Mădălina Vătămănescu and Andreea Mitan. Bucharest: Tritonic, Romania, pp. 595–606.
- Bandura, Albert. 1977. Self-efficacy: Toward a unifying theory of behavioral change. *Psychological Review* 84: 191. [CrossRef]
- Baumeister, Roy F., and Mark R. Leary. 1995. The need to belong: Desire for interpersonal attachments as a fundamental human motivation. *Psychological Bulletin* 117: 497–529. [CrossRef] [PubMed]
- Bazan, Carlos, Hannah Gaultois, Arifusalam Shaikh, Katie Gillespie, Sean Frederick, Ali Amjad, Simon Yap, Chantel Finn, James Rayner, and Nafisa Belal. 2020. Effect of the university on the social entrepreneurial intention of students. *New England Journal of Entrepreneurship* 23: 3–24. [CrossRef]
- Boyd, Nanacy G., and George S. Vozikis. 1994. The Influence of Self-Efficacy on the Development of Entrepreneurial Intentions and Actions. *Entrepreneurship Theory and Practice* 18: 63–77. [CrossRef]
- Bridge, Teresa. 2015. 5 Ways the Workplace Needs to Change to Get the Most out of Generation Z. Available online: <https://www.fastcompany.com/3049848/5-ways-the-workplace-needs-to-change-to-get-the-most-out-of-generation-z> (accessed on 22 September 2023).
- Broke, Connor. 2023. 15 Aspects that Highlight How Generation Z Is Different from Millennials. Available online: <https://www.business2community.com/social-data/15-aspects-that-highlight-how-generation-z-is-different-from-millennials-01244940> (accessed on 12 August 2023).
- Burlea-Schiopoiu, Adriana, and Joop Remme. 2017. The Dangers of Dispersal of Responsibilities. *Amfiteatru Economic* 19: 464–76.
- Caliendo, Marco, Alexander Kritikos, Daniel Rodriguez, and Claudia Stier. 2023. Self-Efficacy and Entrepreneurial Performance of Start-Ups. *Small Business Economics* 61: 1027–51. [CrossRef]
- Cassar, Gavin, and Henry Friedman. 2009. Does self-efficacy affect entrepreneurial investment? *Strategic Entrepreneurship Journal* 3: 241–60. [CrossRef]
- Chen, Chao C., Patricia Gene Greene, and Ann Crick. 1998. Does entrepreneurial self-efficacy distinguish entrepreneurs from managers? *Journal of Business Venturing* 13: 295–316. [CrossRef]
- Chen, Gilad, Gully Stan, and Eden Dov. 2001. Validation of a new general self-efficacy scale. *Organizational Research Methods* 4: 62. [CrossRef]
- Ciobanu, Claudiu. 2019. Studiu iVOX: 1 din 2 Români din Mediul Urban ar vrea să Devină Antreprenor Studiu iVOX: 1 din 2 Români din Mediul Urban ar vrea să Devină Antreprenor. Available online: <https://www.retail-fmcg.ro/servicii/studii-de-piata/studiu-ivox-raiffeisen-bank.html> (accessed on 14 October 2023).
- Cordier, Reinie, Milbourn Ben, Martin Robyn, Buchanan Angus, Chung Donna, and Speyer Renee. 2017. A Systematic Review Evaluating the Psychometric Properties of Measures of Social Inclusion. *PLoS ONE* 12: e0179109. [CrossRef] [PubMed]
- Dreyer, Christian, and Hana Stojanová. 2023. How entrepreneurial is German generation Z vs. generation Y? A literature review. *Procedia Computer Science* 217: 155–64. [CrossRef]
- Eldridge, Alison. 2024. Generation Z. *Encyclopedia Britannica*. Available online: <https://www.britannica.com/topic/Generation-Z> (accessed on 2 January 2024).
- Elfving, Jennie, Brännback Malin, and Carsrud Alan. 2009. Toward a contextual model of entrepreneurial intentions. *International Studies in Entrepreneurship* 24: 23–33. [CrossRef]
- Eyel, Cafer Safak, and Ismet Burcak Vatansever Durmaz. 2019. Entrepreneurial Intentions of Generation-Z: Compare of Social Sciences and Natural Sciences Undergraduate Students at Bahçeşehir University. *Procedia Computer Science* 158: 861–68. [CrossRef]
- Fornell, Claes, and David F. Larcker. 1981. Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research* 18: 39. [CrossRef]
- GEM (Global Entrepreneurship Monitor). 2023. *Global Entrepreneurship Monitor 2023/2024 Global Report: 25 Years and Growing*. London: GEM.
- Hair, Joseph F., and Marko Sarstedt. 2021. Explanation plus Prediction—The Logical Focus of Project Management Research. *Project Management Journal* 52: 319–22. [CrossRef]
- Hair, Joseph F., Hult M. G. Tomas, Ringle M. Christian, and Sarstedt Marko. 2022. *A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM)*, 3rd ed. Thousand Oaks: Sage.
- Half, Robert. 2015. *Get Ready for Generation Z*. Menlo Park: Robert Half International Inc.
- Hamdani, Nizar Alam, Ramadani Veland, Anggadwita Grisna, Maulida Ghina Sulthanah, Zuferi Rasim, and Maalaoui Adnane. 2023. Gender stereotype perception, perceived social support and self-efficacy in increasing women's entrepreneurial intentions. *International Journal of Entrepreneurial Behaviour & Research* 29: 1290–313. [CrossRef]
- Idowu, Samuel O., Stephan Vertigas, and Adriana Burlea-Schiopoiu. 2017. Corporate Social Responsibility in Times of Crisis: A Summary. In *CSR, Sustainability, Ethics & Governance, Corporate Social Responsibility in Time of Crisis*. Edited by Samuel O. Idowu, Stephan Vertigans and Adriana Schiopoiu Burlea. Cham: Springer, pp. 154–96. [CrossRef]

- Ilies, Garofița Loredana, Iulia Cristina Mureșan, Iulia Diana Arion, and Felix H. Arion. 2023. The Influence of Economic and Entrepreneurial Education on Perception and Attitudes towards Entrepreneurship. *Administrative Sciences* 13: 212. [CrossRef]
- Jerusalem, Matthias, and Ralf Schwarzer. 1992. Self-efficacy as a resource factor in stress appraisal processes. In *Self-Efficacy: Thought Control of Action*. Edited by Ralf Schwarzer. Washington, DC: Hemisphere, pp. 195–216.
- Jones, Robert P., Jackson Natalie, Najle Maxine, Bola Oyindamola, and Greenberg Daniel. 2019. *America's Growing Support for Transgender Rights*. Washington, DC: PRRI.
- Kock, Ned. 2015. Common method bias in PLS-SEM: A full collinearity assessment approach. *International Journal of e-Collaboration* 11: 1–10. [CrossRef]
- Kolvereid, Lars. 1996. Organisational employment versus self-employment: Reasons for career choice intentions. *Entrepreneurship Theory and Practice* 20: 23–31. [CrossRef]
- Le, Huong, Michael Polonsky, and Rodney Arambewela. 2015. Social inclusion through cultural engagement among ethnic communities. *Journal of Hospitality Marketing & Management* 24: 375–400. [CrossRef]
- Lee, Lena, Poh Kam Wong, Maw Der Foo, and Aegean Leung. 2011. Entrepreneurial intentions: The influence of organizational and individual factors. *Journal of Business Venturing* 26: 124–36. [CrossRef]
- Lent, Robert W., and Gail Hackett. 1987. Career self-efficacy: Empirical status and future directions. *Journal of Vocational Behavior* 30: 347–82. [CrossRef]
- Lesinskas, Kristaps, Mavlutova Inese, Spilbergs Aivars, and Hermanis Janis. 2023. Digital Transformation in Entrepreneurship Education: The Use of a Digital Tool KABADA and Entrepreneurial Intention of Generation Z. *Sustainability* 15: 10135. [CrossRef]
- Lin, Song, and Steven Si. 2014. Factors affecting peasant entrepreneurs' intention in the Chinese context. *International Entrepreneurship and Management Journal* 10: 803–25. [CrossRef]
- Liñán, Francisco, and Yi-Wen Chen. 2009. Development and Cross-Cultural Application of a Specific Instrument to Measure Entrepreneurial Intentions. *Entrepreneurship Theory and Practice* 33: 593–617. [CrossRef]
- Malone, Glenn P., David R. Pillow, and Augustine Osman. 2012. The general belongingness scale (GBS): Assessing achieved belongingness. *Personality and Individual Differences* 52: 311–316. [CrossRef]
- Nagy, Adam, and Attila Kolcsay. 2017. Generation Alpha: Marketing or science? *Acta Technologica Dubnicae* 7: 107–15. [CrossRef]
- Neneh, Brownhilder Ngek. 2019. From entrepreneurial intentions to behavior: The role of anticipated regret and proactive personality. *Journal of Vocational Behavior* 112: 311–24. [CrossRef]
- Newman, Alexander, Martin Obschonka, Susan Schwarz, Michael Cohen, and Ingrid Nielsen. 2019. Entrepreneurial self-efficacy: A systematic review of the literature, on its theoretical foundations, measurement, antecedents, and, outcomes, and an agenda for future research. *Journal of Vocational Behavior* 110: 403–19. [CrossRef]
- Patel, Deep. 2017. 8 Ways Generation Z Will Differ from Millennials in the Workplace. *Forbes*. Available online: <https://www.forbes.com/sites/deeppatel/2017/09/21/8-ways-generation-z-will-differ-from-millennials-in-the-workplace/#6ea456776e5e> (accessed on 12 August 2023).
- Peters, Mike, Kallmuenzer Andreas, and Buhalis Dimitios. 2019. Hospitality entrepreneurs managing quality of life and business growth. *Current Issues in Tourism* 22: 2014–33. [CrossRef]
- Provident. 2022. Invizibili: Eroii de conjunctură ai României. Available online: <https://www.provident.ro/transparent/invizibili> (accessed on 11 November 2023).
- Rajchert, Joanna, Weronika Molińska, and Wojciech Von Rath. 2023. Inclusion and Exclusion Effect on Self-Efficacy. Available online: <https://ssrn.com/abstract=4446733> (accessed on 10 January 2024).
- Rauch, Andreas. 2014. Predictions of entrepreneurial behavior: A personality approach. In *Handbook of Research on Small Business and Entrepreneurship*. Edited by Elizabeth Chell and Mine Karatas-Ozkan. London: Edward Elgar, pp. 165–83.
- Ringle, M. Christian, Sven Wende, and Jan-Michael Becker. 2023. SmartPLS 4. Boenningstedt: SmartPLS. Available online: <https://www.smartpls.com> (accessed on 27 December 2023).
- Schawbel, Dan. 2014. Gen Z Employees: The 5 Attributes You Need to Know. Available online: <http://www.entrepreneur.com/article/236560> (accessed on 10 June 2023).
- Seemiller, Corey, and Meghan Grace. 2019. *Generation Z: A Century in the Making*. New York: Routledge.
- Sequeira, Jennifer M., Stephen Mueller, and Jeffrey E. McGee. 2007. The influence of social ties and self-efficacy in forming entrepreneurial intentions and motivating nascent behavior. *Journal of Developmental Entrepreneurship* 12: 275–93. [CrossRef]
- Shmueli, Galit, Marko Sarstedt, Joseph F. Hair, Jun-Hwa Cheah, Hiram Ting, Santha Vaithilingam, and Christian M. Ringle. 2019. Predictive model assessment in PLS-SEM: Guidelines for using PLSpredict. *European Journal of Marketing* 53: 2322–47. [CrossRef]
- Sirgy, Joseph M. 2002. *The Psychology of Quality of Life*. Dordrecht: Kluwer Academic Pub, vol. 12.
- Stead, Valerie. 2017. Belonging and women entrepreneurs: Women's navigation of gendered assumptions in entrepreneurial practice. *International Small Business Journal* 35: 61–77. [CrossRef]
- Turcic, Ivan. 2022. Investigating social entrepreneurship intentions of Generation Z: Do gender and role models make a difference? *International Journal of Contemporary Business and Entrepreneurship* 3: 19–35. [CrossRef]
- Twenge, Jean M. 2023. How Gen Z Changed Its Views on Gender. Available online: <https://time.com/6275663/generation-z-gender-identity/> (accessed on 10 December 2023).
- Wennberg, Karl Jonas, Saurav Pathak, and Erkkio Autio. 2013. How culture moulds the effects of self-efficacy and fear of failure on entrepreneurship. *Entrepreneurship and Regional Development* 25: 756–80. [CrossRef]

- William, David. 2016. Millennials vs. Generation Z: What Employers Must Know. Available online: <https://smallbiztrends.com/2016/07/millennials-vs-generation-z.html> (accessed on 12 August 2023).
- Zamfirache, Alexandra, Titus Suci, Carmen Elena Anton, Ruxandra-Gabriela Albu, and Ioana-Simona Ivasciuc. 2023. The Interest Shown by Potential Young Entrepreneurs in Romania Regarding Feasible Funding Sources, in the Context of a Sustainable Entrepreneurial Education. *Sustainability* 15: 4823. [CrossRef]
- Zanabazar, Altanchimeg, and Tsolmon Jambal. 2023. The Relationship Between Entrepreneurial Mindset and Entrepreneurial Intention: An Extended Model of Theory of Planned Behavior. *Ad Alta Journal of Interdisciplinary Research* 13: 120–25.
- Zheng, Danni, and Zengxian Liang. 2023. Determinants of improving small tourism business performance and entrepreneurs' quality of life: Evidence from a three-year longitudinal study. *Asia Pacific Journal of Tourism Research* 28: 127–42. [CrossRef]

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