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Entrepreneurial and intrapreneurial intentions: Analyzing the premise of distinct constructs with different determinants

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ABSTRACT

This study investigates the entrepreneurial and intrapreneurial intentions of the working-age population in Bosnia and Herzegovina by considering a set of demographic and entrepreneurial background factors. Using a cross-sectional survey design, 782 responses were collected. To test hypotheses, confirmatory factor analysis, Welch's t-test, one-way variance analysis with Brown-Forsythe, Welch's F, and least square difference post hoc tests were used. The results suggest several theoretical and practical implications. First, entrepreneurial and intrapreneurial intentions are statistically different constructs. Second, there were mixed results regarding demographic factors where age is a significant differentiator in entrepreneurial and intrapreneurial intentions, experience and education are partial, while gender is insignificant. Third, concerning entrepreneurial background factors, both entrepreneurial education and family are significant differentiators in entrepreneurial and intrapreneurial intentions. Finally, the study contributes to the current state of knowledge by empirically demonstrating divergence between entrepreneurial and intrapreneurial intentions, extending the comparative research to the working-age population, and providing implications within the context of Bosnia and Herzegovina.

Keywords: Entrepreneurial and intrapreneurial intentions, demographic factors, entrepreneurial background, Bosnia and Herzegovina

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1. Introduction

For decades, entrepreneurial activity has been labeled an engine of economic growth [1]. Entrepreneurs are considered innovators that can act as an adjustment process that improves the efficiency of the economy, which ultimately leads to its development [2]. However, this activity has been mistakenly observed from a single perspective—through entrepreneurship. In this discourse, Douglas and Fitzsimmons [3] argue that there is an alternative way in which individuals can behave entrepreneurially. Commonly known as intrapreneurship, corporate entrepreneurship, and corporate venturing [4], it is defined as entrepreneurship within an already existing organization. Furthermore, some authors extend the definition to a process of instigating change from the bottom up in an existing organization [5, 6]. By allowing employees to use their entrepreneurial skills, companies tend to create a culture that cultivates innovative outputs, which results in the expansion and diversification of businesses [7]. Such businesses tend to play an important role in the overall economy [8].

As a research focus, intrapreneurship received significantly less attention over the years [8], which was even more prominent regarding intentions. In particular, intentions are considered a more proxy indicator of actual

behavior as they represent the best predictors [9]. Ajzen [9] argues that 30% of actual behavior is based on intentions, which is complementary to Krueger et al. [10] statement that not every intention will necessarily turn into behavior, but the intention will precede every behavior. Contrarily to entrepreneurial intentions (EI), intrapreneurial intentions (II) are highly neglected in the literature as authors pay attention to employees' intentions to re-enter entrepreneurship [11] or study intrapreneurial behaviors [12, 13, 14]. Although both concepts are closely related to entrepreneurial behavior, it is not to say that entrepreneurship and intrapreneurship are the same. In fact, assuming that intrapreneurship is merely a lighter version of entrepreneurship is a common misconception. Therefore, reflecting on intentions, Douglas and Fitzsimmons [3, p. 115] state that these are "distinct constructs with different antecedents". However, this argument lacks empirical support in several ways.

First, there is a lack of discriminant validity evidence regarding EI and II, as a comparative approach has not been scientifically used [15]. In particular, Douglas and Fitzsimmons [3] claim that entrepreneurial behavior results from a combination of individual and opportunity considering that there might be significant differences on both sides. However, they do not statistically test for the constructs' divergence. The replicated study performed by Marchiori et al. [16] provides some discriminant validity evidence, while the study of Gonzalez-Serrano et al. [17] does not report the validity. Besides, the samples used in these studies were solely related to the student population. This one-sample approach does not provide a complete picture of the extent of EI and II within the countries, which creates a significant gap in the literature. Therefore, the first objective of this study is to investigate whether the divergence of EI and II is valid within the extended sample of the working-age population.

Second, the divergent construct with different determinants was dominantly based on the differences in individual attitudes, self-efficacy, and entrepreneurial skills [3, 10, 15]. Interestingly, relatively few previous studies were interested in background factors [18], and they mainly were investigated individually [19, 20, 21, 22]. Based on the results of Schlaegel and Koenig's [23] meta-analysis, only six out of 52 studies on EI include non-student samples. When examining the demographic characteristics such as age, the influence of role models, and previous work experience, it is crucial to expand the sample to the working population. Young people may react differently to the influence of the family, they have little to no work experience, and they are all almost the same age. Investigating such factors within the working population can be helpful in the discourse about the divergence of EI and II. Therefore, the study's second objective is to investigate the role of different background factors within EI and II.

Finally, samples of developed countries were mostly the focus of most studies making developing countries a priority in the coming period [24]. Bosnia and Herzegovina (B&H), as a country at the crossroads of economic transition, is characterized by a massive brain drain of young and high-educated human capital [25]. Given that emigration is happening selectively, it can cause serious shifts in the country's demographics [26, 27]. In addition, the decision to leave the country is correlated to specific personality characteristics, which are characteristic of individuals with high EI or II [28]. This might be why, as pointed out by Rajh et al. [29], individuals in B&H exhibit lower EI than those in Serbia, North Macedonia, and Croatia. Focusing on EI and II, instead of entrepreneurial behavior directly, can aid policymakers in understanding if people in B&H are even willing to become entrepreneurs and if policies directed at removing the barriers to entrepreneurship are going to be in vain or not. Stimulating entrepreneurship is a way for B&H to escape the "middle-income trap" it has been stuck in for years. As a result, the final objective of this study is to examine the practical implications of EI and II in the context of B&H.

2. Literature and hypotheses

2.1 EI and II as divergent constructs

As EI and II are derived from entrepreneurship and intrapreneurship, it is crucial to highlight the points of differentiation. In particular, EI is defined as "a self-acknowledged conviction by a person that they intend to set up a new business venture and consciously plan to do so at some point in the future" [30]. Stemming from EI definition, II can be defined as individual "self-acknowledged convictions" and plans to engage in entrepreneurial activities within existing organizations in the future. Douglas and Fitzsimmons [3] argue that there are five main points on which the two constructs differ. The first differentiation point is income, as potential entrepreneurs can expect to collect most of the firm's profits instead of intrapreneurs who can expect

a relatively small financial reward. Second, entrepreneurs are assumed to have higher decision-making autonomy as owner-manager, while intrapreneurs have to comply with senior management and existing firm policies. Third, the authors expect that the majority ownership related to entrepreneurship will provide greater psychic benefits than non-ownership characterizing intrapreneurs. The fourth differentiation point is the risk that is expected to be significantly higher for an entrepreneur than an intrapreneur. The final difference refers to workload, as entrepreneurs are expected to have more responsibilities than intrapreneurs. As such, the intentions to behave either entrepreneurially or intrapreneurially should be observed as distinct constructs.

For those reasons, the study by Marchiori et al. [16] presented confirmatory factor analysis (CFA) that indicated, to some extent, the existence of discriminant validity among the two constructs. In line with this, the study by Gonzalez-Serrano et al. [17] argued that entirely different sets of variables determine entrepreneurial and intrapreneurial intentions. Apart from the lack of sufficient statistical evidence for differences between EI and II, it should be noted that all of these studies were conducted among students of business and administration, which further prevents definite conclusions on whether the two constructs are truly distinct or mutually overlapping. Moreover, although the existing research offers valuable findings from Australia, China, India, Thailand [3], Brazil [16], and Spain [17], the data utilized in those studies are fairly outdated.

In a country where the ease of doing business is ranked relatively low [31], it is interesting to see a statistically significant difference between EI and II as the obstacles to starting a business may have pushed someone with EI into II. Besides, both types of entrepreneurial behavior, which are not mutually exclusive, may enable individuals in B&H to escape the "middle-income trap" as it can produce benefits such as job creation and, ultimately, a knowledge-based economy. The "cultural heritage" of socialism, characterized by corporate life, loyalty to the organization, and hierarchical career ladders, might also affect individuals to behave in one way or another. Therefore, we hypothesize the following:

H1: There is a statistical difference between EI and II.

2.2 EI, II, and Bosnia and Herzegovina

For the most part, existing literature focuses on developed economies [32], while there is a paucity of research examining EI in developing economies with varying levels of economic and political stability [33]. According to Iakovleva et al. [34], there is a statistically significant difference between EI in developing and developed countries, indicating that the findings from developing countries have limited applicability. Developing countries offer the opportunity for entrepreneurship and, in some cases, even more so than developed countries [35]. As scarce as it is, literature on entrepreneurship in developing countries from the perspective of demographic characteristics mainly focuses on entrepreneurial behavior and rarely on EI [36]. Demographic characteristics of existing and nascent entrepreneurs are not necessarily the same as certain demographics can be developed due to running a business [37]. This calls for more research that would provide a deeper understanding of the demographics of nascent rather than existing entrepreneurs.

As Iakovleva et al. [34] point out, overly stable or socialistic social systems can impose a serious obstacle to entrepreneurial behavior. The country's unique social heritage makes the study all the more interesting as the working population in B&H still includes people who grew up in a socialist regime and their entrepreneurial behavior. The intention could be affected by that fact. Further, the end of the socialist regime in B&H launched the beginning of the transition process, which was disrupted by the dissolution of Yugoslavia. The war sparked massive emigration from the country and the death of many who stayed. The rates of return after the war were low, but the devastation caused by the war gave rise to numerous problems that pushed many people out of the country after the conflict was long over, causing a significant brain drain. The polls show that most young people wish to leave the country, many of whom are highly qualified individuals [33] who may also be nascent entrepreneurs or intrapreneurs. As a result, today, the job market is failing, and the aging

population is causing the collapse of the welfare system. All of this may cause shifting trends in the population demographic. Given that the demographic characteristics of individuals can control for different entrepreneurial intentions, it is interesting to observe these in the context of B&H. In particular, our focus is based on demographic factors and the entrepreneurial background of the working-age population in B&H.

2.3 EI, II, and demographic factors

Considering that EI and II are highly personal constructs, it can be assumed that they are dynamic and can differ based on many demographic factors. For instance, several studies were concerned with differences in EI or II based on age. However, existing findings are highly mixed. For instance, Hatak et al. [21] argued that age is negatively related to EI, which aligns with the notion that most entrepreneurial firms are created by individuals aged 25-34 [38]. Contrarily, Sahinidis et al. [22], Nguyen [39], and Kenmegni and Assiga [18] did not find any statistically significant differences in EI that can be related to age. Besides, Douglas and Fitzsimmons [40] indicated that age is not associated with EI, while it is related to significant differences in II. Apart from the mixed findings, existing research is either conducted in developed countries [21] or among the student population [22, 39, 40]. By extending the sample to the working-age population, we get better insight into the age differences as they become more significant. Therefore, we propose the following hypothesis:

H2: Age is a significant differentiator within EI and II.

Similar to age, research on experience role in EI and II produced divergent results. For example, Lans et al. [41] suggested that experience-related variables do not relate differently to EI types, including II. Slightly diverging in the nature of experience, Nguyen [39] asserted that having prior work experience in self-employment does not relate to EI. On the contrary, recent evidence provided by Kenmegni and Assiga [18] indicated that previous work experience positively impacts EI. Similarly, Miralles et al. [42] and Peng et al. [43] demonstrated that through different mediators, there is a significant relationship between experience and EI. The reason behind such mixed findings present in the literature might be that the existing research was mainly conducted among the student population. The study by Yuan et al. [20] conducted among a diverse sample confirmed that prior work experience increases EI. Considering that previous experience enriches individuals with knowledge, skills, know-how, and network, it seems more probable that experience tends to play a certain role. Similar to age, experience difference tends to be more significant within the working-age population. Besides, in the B&H context, those with experience tend to be more "trusted" and have more opportunities and resources to exhibit EI and II. Therefore, we hypothesize that:

H3: Experience is a significant differentiator within EI and II.

General education, measured in the number of years spent in school, was positive on entrepreneurial performance [44]. However, when analyzing the role of such education on intentions, the research produced ambiguous results. For example, Lans et al. [41] called for future studies investigating the role of education in differences in EI and II since their results were inconclusive. Hatak et al. [21] demonstrated that education is important regarding EI, while in a comparative study, Douglas and Fitzsimmons [40] showed that highly educated people are more intrapreneurial. Furthermore, research by Kenmegni and Assiga [18] contributed to this issue by showing significant differences in educational level and EI. However, Nguyen et al. [39] argued that education does not impact EI. Apart from offering divergent findings based on the student samples, most existing literature failed to consider II alongside EI. In the context of B&H, most "less-educated" individuals are those with useful technical skills. Such skills often serve as a foundation for starting their own businesses since they are relatively underpaid when working for someone else, while those with higher education are more prone to work in big companies and exhibit entrepreneurial behavior. Thus, we hypothesize that:

H4: Education is a significant differentiator within EI and II.

In entrepreneurial research, men were more emphasized as potential entrepreneurs [45], with significant evidence from more traditional cultures [46]. However, the common discourse receives a different perspective

as studies tend to present women as an important source of entrepreneurship [39]. Besides, it is portrayed among the factors that possibly account for EI and II differences. Again, findings on the topic are diverse but derived from student samples. In particular, research by Nguyen [39] showed that male students have higher entrepreneurial intentions than their female counterparts, while Kenmegni and Assiga [18] indicated that there are no statistically significant differences between male and female students. Interestingly, Lans et al. [41] argued that male students are more likely to start up a business but that there are no differences between males and females concerning the takeover of the family business or intrapreneurship. However, considering the context of Bosnia and Herzegovina, characterized by gendered labor roles and traditional roles for men and women that contribute to male dominance in self-employment [47], we propose the following hypothesis:

H5: Gender is a significant differentiator within EI and II.

2.4 EI, II, and entrepreneurial background

Although it is reasonable to associate the general level of education with EI and II, it is even more important to assess whether the nature of the education plays a role in those intentions. Nevertheless, research on this topic is scarce. The study by Lans et al. [41] did not offer sufficient evidence to conclude that the nature of education, business or non-business, is differently related to types of EI, including II. However, Peng et al. [43] indicated that lacking entrepreneurial education is negatively associated with EI. Similarly, Ndofirepi [19] and Liu et al. [48] argued that entrepreneurial education positively relates to entrepreneurial goal intentions. Such conclusions appear more likely as it can be assumed that having sufficient knowledge of entrepreneurship or intrapreneurship will make individuals more prone to engaging in such actions. In the B&H context, entrepreneurial education has been in focus only recently, especially in formal education, with more emphasis on higher education [49]. Therefore, it is crucial to check whether its existence offers some distinction to exhibiting EI or II. Consequently, we propose the following hypothesis:

H6: Entrepreneurial education is a significant differentiator within EI and II.

Among other factors discussed in this study, having a family engaged in entrepreneurship seems a natural background for developing stronger EI and II. However, the research produced different results. For example, Lans et al. [41] fail to support the argument that family entrepreneurial experience will be distinctively related to EI and II. Also, Peng et al. [43] indicated that family background factors do not impact EI, while Nguyen [39] opposes the assertion that children whose parents are self-employed will have higher EI. On the contrary, Kenmegni and Assiga [18] stated that children whose household head is self-employed have higher EI than those whose household head is not self-employed. Besides, a recent study by Fashami et al. [50] showed that having an entrepreneur in a family is positively related to EI and II. In the context of B&H, family plays an important role, and close family members serve as role models. Thus, we propose the following hypothesis:

H7: Entrepreneurial family is a significant differentiator within EI and II.

3. Methods

3.1 Participants and procedure

The participants in this study were individuals in Bosnia and Herzegovina that belong to the working-age population. A cross-sectional survey was applied to collect the data, where a questionnaire was developed as the main instrument. Besides, a cover letter explaining the purpose, ensuring that the participation is voluntary, and granting anonymity was created.

The participants were selected based on convenience sampling and contacted via different tools (in-person, email, and social networks). This was a logical option as no available dataset included individuals from the working-age population. Therefore, we aimed for a larger and more divergent sample to reduce the risk of possible sample bias, as instructed by Vandekerkhof et al. [51].

After the data cleansing, the usable sample was 728 individuals. Regarding the profile, the average age was 31.5. Furthermore, most of the participants were females (63%) and high educated (59%). Finally, the average experience was 7.5 years.

3.2 Measurement

Although the questionnaire is a part of a large-scale project, eight different variables were used for this study. EI and II were measured by the adapted self-reporting scale from Douglas and Fitzsimons [3], which was based on a seven-point Likert scale (ranging from very unlikely to very likely). The scale contained four items for EI (e.g., "How likely is it that you would want to be self-employed at some later point in the future, assuming you had a good opportunity and could raise the funding necessary?") and three items for II (e.g. "How likely is it that you would want to manage (within your employer's business) a new division (or branch) that is set up to exploit a radical innovation?"). All items are presented in Appendix. As the original constructs were in English, we performed a back translation (English-Bosnian-English) to ensure content validity.

Age was initially measured in years and later transformed into three age categories following OECD [52] classification. In particular, new work lives (NWL) were categorized as individuals aged 18-24, prime working lives (PWL) as individuals aged 25-54, and peak passed working lives (PPWL) as individuals aged 55-65. Gender was categorized as a dummy variable, including males and females. The experience was categorized on four levels: less than two years as least experienced (LE), two to five years as somewhat experienced (SE), six to ten years as moderately experienced (ME), and ten and more as highly experienced (HE). Education was measured on four levels: high school degree (HS), bachelor's degree (BA), master's degree (MA), and doctorate degree (PhD). For entrepreneurial education, we asked a question of whether individuals had a course in entrepreneurship within their education, and the response was measured as a dummy variable (yes/no). Finally, for entrepreneurial family, the question of whether close family members are/were entrepreneurs were asked. The responses were recorded as the dummy variable (yes/no).

3.3 Analyses

To check reliability, we used Cronbach's alpha value and the threshold of 0.70 [53]. Regarding validity, we checked for both convergent and discriminant validities by CFA. For convergent validity, both standardized factor loadings (SFL) and the average variance extracted should be above 0.50 [54, 55], while composite reliability should be above 0.60 [56]. Concerning discriminant validity, a square root of the average variance extracted should be higher than the mutual correlation of respective variables.

For comparative hypotheses, we used two tests. First, since our samples were relatively unequal and we might expect unequal variances, we used Welch's *t*-test for comparing two categories of unequal samples [57]. Even if we have a case of equal sample and variances, Welch's t-test gives us the same result as the independent samples *t*-test. Second, for the same reason of possible unequal variances, one-way analysis of variance (ANOVA) with Brown-Forsythe and Welch's F tests was used to compare three or more categories [58]. Besides, when the results would demonstrate significant differences between the groups, a least significant difference (LSD) post hoc test was performed to check for the actual differences.

4. Results

To reach the multiple purposes of this study, we performed analyses in two stages: pre-testing and hypothesis testing.

4.1 Pre-testing

We checked whether EI and II are statistically divergent constructs in a pre-testing stage. Table 1 presents the results.

Table 1. Descriptive statistics, reliability and validity for EI and II

Variable	Item	SFL	M	SD	α	AVE	CR	√AVE	>	r
EI	EI1	0.807	5.280	1.404	0.869	0.631	0.872	0.795	>	0.561
	EI2	0.838								
	EI3	0.728								
	EI4	0.801								
II	II1	0.828	5.336	1.314	0.896	0.752	0.900	0.867	>	0.561
	II2	0.948								
	II3	0.819								

Note(s). SFL – Standardized factor loadings; α - Cronbach's alpha; AVE – Average variance extracted; CR – Composite reliability, r – Mutual correlation between variables.

From Table 1, we can see that Cronbach's alpha is above 0.70 in both cases, which means that the reliability for both constructs has been reached. Besides, the results suggest that both SLF and AVE are above 0.50, while CR is above 0.60. This means that convergent validity has been reached. Finally, the square root of AVE is higher than the mutual correlation between the variables, indicating that a discriminant validity between the constructs exists. Therefore, we can conclude that EI and II are divergent constructs measuring statistically different intentions.

4.2 Hypotheses testing

Series of Welch's t-tests and ANOVA with Brown-Forsythe, Welch's F tests, and LSD post hoc test were performed to test the hypotheses. Tables 2-4 present analyses of EI and II based on different age categories.

Table 2. Descriptive statistics for EI and II based on different age categories

DV	Category	N	M	SD	SE
EI	NWL	287	5.727	1.099	0.065
	PWL	441	5.164	1.404	0.067
	PPWL	54	3.829	1.679	0.229
	Total	782	5.279	1.404	0.050
II	NWL	287	5.661	1.114	0.066
	PWL	441	5.265	1.331	0.063
	PPWL	54	4.154	1.400	0.191
	Total	782	5.334	1.313	0.047

Note(s). M – Mean; SD – Standard deviation; SE – Standard error; NWL – New working lives, PWL – Prime working lives; PPWL – Peak passed working lives.

Table 3. Brown-Forsythe and Welch's F tests for EI and II based on different experience categories

DV	Test	Statistic	df1	df2	Sig.
EI	Welch	42.368	2	140.823	0.000
	Brown-Forsythe	41.674	2	135.015	0.000
II	Welch	31.288	2	144.119	0.000
	Brown-Forsythe	31.880	2	172.486	0.000

Note. df – Degrees of freedom

Table 4. Least significant difference for EI and II based on different age categories

DV	Category 1 (C1)	Category 2 (C2)	MD (C1-C2)	SE	Sig.	Lower Bound	Upper Bound
EI	NWL	PWL	0.564	0.100	0.000	0.367	0.760
	NWL	PPWL	1.899	0.196	0.000	1.514	2.284
	PWL	PPWL	1.335	0.191	0.000	0.961	1.709
II	NWL	PWL	0.396	0.096	0.000	0.208	0.583
	NWL	PPWL	1.507	0.187	0.000	1.139	1.874
	PWL	PPWL	1.111	0.182	0.000	0.754	1.468

Note(s). MD – Mean difference; SE – Standard error; 95% confidence interval.

Table 2 presents descriptive indicators for EI and II across three age categories. Table 3 indicates at least one significant difference between the age categories when it comes to EI and II. Therefore, there was a need to perform an LSD post hoc test, and the results are presented in Table 4. In particular, we can see a statistical difference in all the categories regarding EI and II. In particular, the results suggest that EI is slightly higher in NWL than PWL, while it is much higher in NWL than PPWL. Besides, EI is higher in PWL than in PPWL. This means that individuals that belong to younger age categories tend to exhibit higher EI and that the difference is larger in higher age categories. Regarding II, the results are similar, with differences between the age categories tending to be smaller. Therefore, we can conclude that age plays a significant differentiator in both EI and II, while its stronger influence exists within EI. With this, there is sufficient evidence to support H2.

Tables 5-7 present analyses of EI and II based on different experience categories.

Table 5. Descriptive statistics for EI and II based on different experience categories

DV	Category	N	M	SD	SE
EI	LE	343	5.671	1.144	0.062
	SE	100	5.515	1.206	0.121
	ME	123	5.148	1.343	0.121
	HE	216	4.619	1.633	0.111
	Total	782	5.279	1.404	0.050
II	LE	343	5.648	1.144	0.062
	SE	100	5.557	1.087	0.109
	ME	123	5.301	1.300	0.117
	HE	216	4.750	1.468	0.100
	Total	782	5.334	1.313	0.047

Note(s). M – Mean; SD – Standard deviation; SE – Standard error; LE – Least experienced; SE – Somewhat experienced; ME – Moderately experienced; HE – Highly experienced.

Table 6. Brown-Forsythe and Welch's F tests for EI and II based on different experience categories

DV	Test	Statistic	df1	df2	Sig.
EI	Welch	24.516	3	289.598	<.001
	Brown-Forsythe	28.325	3	549.713	<.001
II	Welch	20.309	3	296.021	<.001
	Brown-Forsythe	23.711	3	560.326	<.001

Note. df – Degrees of freedom

Table 7. Least significant difference for EI and II based on different experience categories

DV	Category 1 (C1)	Category 2 (C2)	MD (C1-C2	SE	Sig.	Lower Bound	Upper Bound
EI	LE	SE	0.156	0.152	0.303	-0.141	0.454
	LE	ME	0.523	0.140	<.001	0.248	0.798
	LE	HE	1.052	0.116	<.001	0.825	1.280
	SE	ME	0.367	0.180	0.042	0.014	0.719
	SE	HE	0.896	0.161	<.001	0.579	1.213
	ME	HE	0.529	0.151	<.001	0.233	0.825
II	LE	SE	0.092	0.143	0.523	-0.189	0.373
	LE	ME	0.347	0.132	0.009	0.088	0.607
	LE	HE	0.898	0.109	<.001	0.683	1.113
	SE	ME	0.256	0.170	0.132	-0.077	0.589
	SE	HE	0.807	0.152	<.001	0.508	1.106
	ME	HE	0.551	0.142	<.001	0.272	0.830

Note(s). MD – Mean difference; SE – Standard error; 95% confidence interval.

Table 5 presents descriptive indicators for EI and II across four experience categories. As shown in Table 6, at least one significant difference between the experience categories exists. Because of that, we performed an LSD post hoc test that is presented in Table 7. First, the results suggest that less experienced individuals tend to exhibit higher EI. We can see a significant difference between all groups, except between less experienced and somewhat experienced. Concerning II, the tendency is relatively similar to II, with the addition of an insignificant difference between somewhat experienced and moderately experienced individuals. Therefore, we can conclude that H3 is partially supported.

Tables 8-10 present analyses of EI and II based on different education categories.

Table 8. Descriptive statistics for EI and II based on different education levels

DV	Category	N	M	SD	SE
EI	HS	323	5.504	1.348	0.075
	BA	219	5.153	1.425	0.096
	MA	209	5.154	1.388	0.096
	Ph.D.	31	4.653	1.587	0.285
	Total	782	5.279	1.404	0.050
II	HS	323	5.438	1.326	0.074
	BA	219	5.221	1.349	0.091
	MA	209	5.348	1.255	0.087
	Ph.D.	31	4.957	1.228	0.221
	Total	782	5.334	1.313	0.047

Note(s). M – Mean; SD – Standard deviation; SE – Standard error; HS – High school; BA – Bachelor degree; MA – Master degree; PhD – Doctorate degree.

Table 9. Brown-Forsythe and Welch's F tests for EI and II based on different education levels

DV	Test	Statistic	df1	df2	Sig.
EI	Welch	5.656	3	133.738	0.001
	Brown-Forsythe	5.534	3	185.501	0.001
II	Welch	2.132	3	137.251	0.099
	Brown-Forsythe	2.167	3	279.249	0.092

Note. df – Degrees of freedom

Table 10. Least significant difference for EI and II based on different education levels

DV	Category 1	Category 2	MD	SE	Sig.	Lower Bound	Upper Bound
EI	HS	BA	0.351	0.122	0.004	0.112	0.590
	HS	MA	0.350	0.123	0.005	0.107	0.592
	HS	PhD	0.851	0.261	0.001	0.337	1.364
	BA	MA	-0.001	0.134	0.992	-0.265	0.263
	BA	PhD	0.500	0.267	0.061	-0.024	1.024
	MA	PhD	0.501	0.268	0.062	-0.024	1.026
II	HS	BA	0.217	0.115	0.059	-0.008	0.442
	HS	MA	0.090	0.116	0.440	-0.138	0.318
	HS	PhD	0.481	0.246	0.051	-0.003	0.964
	BA	MA	-0.127	0.127	0.317	-0.376	0.122
	BA	PhD	0.264	0.251	0.295	-0.230	0.757
	MA	PhD	0.391	0.252	0.122	-0.104	0.886

Note(s). MD – Mean difference; SE – Standard error; 95% confidence interval.

In Table 8, we can see the descriptive indicators for EI and II when it comes to different education categories. Furthermore, the results in Table 9 demonstrate at least one significant difference between the groups, but only in the case of EI. The LSD post hoc test was performed to check the differences further, and the results are presented in Table 10. In particular, we got mixed results. On the one hand, there is a significant difference between high school educated individuals and the individuals from the other three education categories. On the other hand, there is no significant difference between different university degrees (BA, MA, and PhD). Therefore, we can conclude that H4 is partially supported. Table 11 presents a comparative assessment for EI and II regarding gender.

Table 11. Comparison of EI and II based on gender

	N	M	SD	SE	t	df	Sig.
EI							
Male	292	5.301	1.334	0.078	0.346	650.979	0.729
Female	490	5.265	1.445	0.065			
II							
Male	292	5.226	1.290	0.076	-1.773	780	0.077
Female	490	5.398	1.324	0.060			

Note(s). N=782. M – Mean; SD – Standard deviation; SE – Standard error; df – Degrees of freedom.

The results demonstrate that males tend to exhibit slightly higher EI, while on the contrary, females tend to show higher II. However, there is no statistical difference between males and females regarding neither EI nor II. Therefore, there is no sufficient evidence to support H5. Table 12 shows the results of EI and II regarding entrepreneurial education.

Table 12. Comparison of EI and II based on entrepreneurial education

	N	M	SD	SE	t	df	Sig.
EI							
Yes	291	5.461	1.286	0.075	2.896	670.731	0.004
No	491	5.171	1.460	0.066			
II							
Yes	291	5.590	1.167	0.068	4.245	780	0.000
No	491	5.182	1.371	0.062			

Note(s). N=782. M – Mean; SD – Standard deviation; SE – Standard error; df – Degrees of freedom.

From Table 12, we can see that those who had an entrepreneurial education tend to exhibit higher EI and II. Furthermore, the difference is statistically significant in both cases. Therefore, there is sufficient evidence to support H6.

The differences for EI and II regarding entrepreneurial family are presented in Table 13.

Table 13. Comparison of EI and II based on entrepreneurial family

	N	M	SD	SE	t	df	Sig.
EI							
Yes	448	5.428	1.378	0.065	3.474	780	0.000
No	334	5.078	1.416	0.077			
II							
Yes	448	5.415	1.313	0.062	2.012	780	0.044
No	334	5.225	1.308	0.072			

Note(s). N=782. M – Mean; SD – Standard deviation; SE – Standard error; df – Degrees of freedom

The results suggest that there is a significant difference in both cases when it comes to entrepreneurial family. This means individuals who had/have a close family member as an entrepreneur tend to exhibit higher EI and II. Therefore, there is sufficient evidence to support H7.

Table 14 presents the summary of the results.

Table 14. Summary of results

Hypotheses	Results
H1: There is a statistical difference between EI and II.	Supported
H2: Age is a significant differentiator within EI and II.	Supported
H3: Experience is a significant differentiator within EI and II.	Partially supported
H4: Education is a significant differentiator within EI and II.	Partially supported
H5: Gender is a significant differentiator within EI and II.	Not supported
H6: Entrepreneurial education is a significant differentiator within EI and II.	Supported
H7: Entrepreneurial family is a significant differentiator within EI and II.	Supported

5. Discussion

Entrepreneurship and, recently, intrapreneurship have been recognized as strategic points for many governments across the globe. Both concepts have been seen as a source of innovation, higher productivity, and job creation. As such, it is has been in the scope of researchers to understand what drives such behaviors. To contribute to an ongoing trend, we designed a multi-purpose study.

The first objective of this study was to validate the divergence between EI and II. Previous studies were limited in this regard as they either provided theoretical distinction [3] or a limited sample of empirical evidence [16, 17]. Our results support the claim made by Douglas and Fitzsimmons [3] that EI and II are divergent constructs. This is an important outcome of this study as it presents empirical evidence on a broader and more divergent sample.

The second objective was to investigate the role of demographic factors, family background, and work experience in terms of EI and II. In particular, we aimed to check for the second part of Douglas and Fitzsimmons' [3] argument, which states that EI and II are divergent constructs with different determinants. Our rationale was that the best way to start delving was with background factors of the working-age population. Overall, the results suggest that these factors are differently related to EI and II to some degree.

Regarding the age categories, the results demonstrate that they are significant differentiators regarding both EI and II. In fact, the results indicate that individuals that belong to younger categories are more likely to exhibit higher EI and II. These results are in line with some of the previous work that emphasizes age as an important determinant of EI [21, 40] and II [40]. In particular, our results are in line with Hatak et al. [21] findings of a negative relationship between age and EI. Besides, they complement some of the earlier evidence that most people tend to start their own business between the ages of 25 and 34 [38] and claim that EI is mostly pronounced in that range [22]. Regarding II, age plays an important role, as suggested in some earlier works [40]. An interesting fact is that there are studies that oppose such findings claiming that age does not play an important role [39, 59]. On a comparative basis, it is interesting to mention that individuals tend to exhibit higher II with age, which is contrary to the results provided by Douglas and Fitzsimmons [40], where individuals tend to be more entrepreneurial as they get older. For the B&H context, this could be explained that younger people have been raised in the modern labor market where free economy, entrepreneurship, and business startups are being promoted. Therefore, they are more prone to risk and are more likely to exhibit entrepreneurial intentions. On the other hand, the older generations tend to be more corporate, which arises from the fact that such individuals have been born in the previous system characterized by a centralized economy and state-owned companies. As such, entrepreneurial spirit was limited and reduced only to act within already established businesses.

Concerning previous work experience, it was a partially significant differentiator for EI and II. Overall, more experienced individuals tend to exhibit higher II and EI. This is with the exception of least experience and somewhat experienced regarding both EI and II and somewhat experienced and moderately experienced in II. Prior works provide arguments why experience might play an important role, but empirical evidence is either lacking or reported as insignificant [22, 41]. The main critique of the previous work lies in the fact that they focused on student samples, and therefore the variation in experience was not that large. This study extended the sample to the working-age population and reported significant results. However, although experienced individuals tend to possess adequate knowledge, abilities, skills, and already developed networks and resources that can be used while starting a business, in a turbulent business environment such as in B&H, they also tend to be more careful in making risky moves.

For education, the analyses provided mixed results. In the case of EI, we had partial support for education as a significant differentiator. In particular, this was the case between high school educated individuals and individuals on three different levels of university education. Besides, those with high school education tend to exhibit higher EI. On the contrary, there was no difference in EI between any of the education categories at the university level. Regarding II, education resulted in insignificant differentiation. This is contrary to some of the previous works that suggested that those with higher education tend to be more intrapreneurial [40], but in line with Hatak et al. [21] results that reported a significant role of education regarding EI. In the context of B&H, the majority of people with a high school education only tend to possess useful technical skills. Those skills are very often used to create own business since the jobs that can be obtained with a high school education are relatively low-paid and often insufficient to cover the regular living costs. This leads to many highly educated people having additional jobs, starting their own businesses, or migrating to the West, where technical skills are in demand due to the current trend. Those who stay tend to start their own business mostly due to necessity.

When it comes to gender, the results suggested slightly higher EI for males and II for females, but no statistical difference. Our findings fit a common discourse on mixed conclusions regarding gender relation to EI and II, as some authors report significant gender roles in EI [39, 60] and II [50], while the other demonstrates an insignificant role in either EI [59] or II [3]. Although men are traditionally more represented in entrepreneurial activities in B&H, the difference has been shrinking over the years. Governments and researchers have put more attention to gender-based entrepreneurship [61]. This is also supported by some official data from the Agency for Statistics of Bosnia and Herzegovina [62], where it is reported that there is

not a big difference in self-employed persons between men and women. There are several reasons for rationalizing the reduced margin. One is that there is a slightly higher number of women entering higher education than men [62], demonstrating higher empowerment. This is even more illustrated by the fact that there are more males in high schools. Second, the traditional "gender-defined jobs" that contribute to the households' budget through the informal sector [63] seem to be very attractive for entrepreneurial activity, mostly because they are perceived as less risky. Besides, there is an increasing demand for homemade and natural products that females mostly produce. Finally, the brain drain within the country is significantly related to men as developed countries demand labor with technical skills (i.e., plumbers, electricians, potters, etc.), which, in the context of B&H, are mostly considered "male-defined jobs".

The role of entrepreneurial education in both EI and II has been significant, which means that those with entrepreneurial education are more likely to exhibit higher EI and II. These results are in line with recent findings [19, 48] and a long-supported argument on the role of business-related education in different spheres [64]. Interestingly, business/entrepreneurship-related education tends to be an important differentiation compared to the general level of education. This is because such education tends to focus on the practical side of entrepreneurship, which empowers individuals to act and behave entrepreneurially [19]. It is very often tailor-made for a particular business context or society.

Like entrepreneurial education, the entrepreneurial family plays an important role in EI and II. In particular, those with close family members as entrepreneurs tend to exhibit such intentions, and the difference is larger in the case of EI. The previous literature demonstrates an important discourse as results provide mixed conclusions. As such, some works support the importance of family background [65], while others reject such assumptions [39, 59]. As close family members are role models and relatively strong family ties characterize the B&H context, it is no surprise that children and relatives of entrepreneurs tend to follow the same path or exhibit similar behaviors.

5.1 Implications for educators, policymakers, and businesses

Although our focus was solely on demographic factors, the results provided some interesting findings that could be useful to different actors in the B&H business environment. First, the results could be beneficial for policymakers as they show that younger people tend to exhibit higher EI and II. Therefore, a better entrepreneurial ecosystem is needed to support the younger generations, as the current one is regarded as bureaucratic, with high taxes and a lack of resources.

Second, as results suggest that less experienced individuals tend to exhibit higher EI and II, the companies might be interested in changing the current recruitment policy. It has been well-known that even for the entry positions, companies in B&H tend to ask for experience and, that way, limit the job application from younger and less experienced individuals. Our results demonstrate that such candidates could have potential worth to the companies.

Finally, general education does not influence higher EI or II, but a more entrepreneurial-oriented one does. The educators should consider entrepreneurial courses, and the entrepreneurial approach to education should be considered while developing existing programs and new curricula. More practical, business environment-oriented courses would contribute to developing skills, attitudes, and knowledge required for entrepreneurial behavior. The entrepreneurial university concept is relatively new in B&H and the region. However, this should not be only considered at the university level since a university degree is not a significant differentiator. Therefore, high schools should also consider adapting their studies and modes of delivery to more entrepreneurial ones.

5.2 Limitations and future research

Although this study is novel on its own and complementary to some earlier studies, it is not without limitations. First, the study focused on only demographic variables and their influence on individuals EI and

II. A more complete approach might include possible mediators and moderators that would help investigate relational hypotheses. For example, future studies might consider including access to resources, attitudes and social norms, self-efficacy, and cultural factors. Second, this study relied on data collected at one point, limiting the causal inference conclusions. Therefore, future studies might employ a longitudinal study design, measure EI and II at different time points, and then make comparative assessments. Finally, the study only deals with a single country sample. As demographic trends are one of the most dynamic in the current environment, future studies might expand the scope of research to more cross-cultural inquiry.

6. Conclusion

Both entrepreneurship and intrapreneurship play a critical role in economic development across the world [2]. That kind of importance has been recognized by the governments that tend to invest in conducive environments that lead to such behaviors. As a country at the crossroads of economic transition, the governments in B&H also recognize that entrepreneurial activities are the way to transform a local and national community. Because of that, we can see different approaches to these topics recently [1].

Since intentions are considered a vital pre-condition of an actual behavior [9, 10], a plethora of research has been conducted regarding EI and slightly less II. However, the current knowledge is still limited in particular ways. Therefore, this study extends the literature by offering some unique contributions. First, it provides statistical evidence of divergence between EI and II, which validates the premise made by Douglas and Fitzsimmons [3] within the context of B&H. Second, the study extends the sample to the working-age population, presenting a less biased sample to previously dominated student samples. Finally, the study contributes to the scarce literature on the role of background factors regarding EI and II. Background factors are in conjunction with the sample extension as they become important in a more divergent sample. When it comes to practice, the study provides useful recommendations for educators, policymakers, and businesses.

Declaration of competing interest

The authors declare that they have no known financial or non-financial competing interests in any material discussed in this paper.

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Appendix

Entrepreneurial intentions

How likely is it that you would want to be self-employed within two years (if you are a student then 2 years after graduation), assuming you had a good new business opportunity and you could raise the funding necessary to start your own business?

How likely is it that you would want to be self-employed at some later point in the future, assuming you had a good opportunity and could raise the funding necessary?

How likely is it that you would want to start your own business to exploit a radical innovation?

How likely is it that you would want to start your own business to introduce a new variant of an existing product or service?

Intrapreneurial intentions

How likely is it that you would want to manage (within your employer's business) a new division (or branch) that is set up to exploit a radical innovation?

How likely is it that you would want to manage (within your employer's business) a new division set up to introduce a new variant of an existing product or service?

How likely is it that you would want to manage (within your employer's business) a new division (or branch) set up to introduce an existing product into a new market?