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**Social and Environmental Commitment Across the Early
and Established Stages of Entrepreneurial Activity**

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Abstract

This study aims to explore the sustainable development awareness, priority, and commitment of adults engaged in early and established entrepreneurial activity. The study is based on the GEM dataset collected during 2023 through an adult population survey on a representative sample in Croatia. The results of the study indicate that the role of social and environmental commitments varies across different motivational orientations of entrepreneurially active adults. It confirms the evolution of motivational orientations and sustainability commitment along the different stages of entrepreneurial activity. Among established businesses whose motivation is either to make a difference in the world or to build great wealth there are more of those who always consider social implications while regarding steps toward the minimisation of environmental impact or the maximisation of social impact there are no differences. Also, more established businesses have taken actions towards SDGs. When we compare factors that influence the motivation to make a difference in the world, in early-stage businesses, important factors are the easiness and proactivity to start a business, the importance of high level of status of entrepreneurs and the steps to maximise the social impact of the business while in established businesses considering social implications and awareness of SDGs are the most important factors. This study contributes to a better understanding of the differences between new or established entrepreneurial activity and their commitment to sustainability which may be essential to the more successful promotion, adoption, or consolidation of sustainable entrepreneurship.

Keywords: SDGs, Social and Environmental Commitment, Early-stage entrepreneurial activity, Established businesses, Global Entrepreneurship Monitor.

JEL Classification: L26, Q56.

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1. Introduction

Sustainable entrepreneurship is considered as a new approach to developing entrepreneurial activities and is increasingly recognised as a solution for urging issues such as poverty, inequality, climate change, carbon emissions, global warming, and pollution. Sustainable entrepreneurs have been expected to be catalysts (Filser et al. 2019) or game changers (Vuorio, 2017) in the transition to sustainable development. Although the growing number of entrepreneurs are increasingly aware of the need to adopt sustainable goals, those who effectively influence sustainable development are still insufficient (Roomi et al., 2021). Several recent studies indicated the significant interaction between sustainable development and opportunity-driven entrepreneurial activity (Cervelló-Royo et al., 2020; Huđek & Bradač Hojnik, 2020). Not surprisingly, researchers (Muñoz & Dimov, 2015) attempting to explain sustainable entrepreneurial behaviour are explicitly emphasising the role of the motivations (such as the aspiration to make a change in the world) and values (i.e. prioritisation of the environmental or social goals) in starting or running sustainability-oriented ventures.

Sustainable entrepreneurship starts with the individuals who consider the social and environmental implications of their activities and are motivated to make a difference. Since indicators of sustainable entrepreneurship are still debated, there is only a sparse empirical evidence regarding the persistence of the sustainability commitment over specific motivational triggers for entrepreneurial engagement or over time (Fischer et al., 2018). In addition, it is still unclear what individual factors induce entrepreneurs to aspire to make a difference in the world. As a response to these gaps in the literature, this study aims to analyse the magnitude and manifestation of entrepreneurs' commitment to sustainability across different motivational orientations and along different stages of the entrepreneurial process. A better understanding of what drives sustainable development and how to enhance or sustain it is essential for more effective transition to the sustainable development agenda (UN, 2016).

2. Problem Statement

Sustainable entrepreneurship is focused on discovering, creating, and exploiting entrepreneurial opportunities that generate economic, social, and environmental values (Shepherd & Patzelt, 2011; Roomi et al., 2021, p. 4). Among studies attempting to explain sustainable entrepreneurial behaviour, the role of motivations is explicitly acknowledged in a number of studies (Fischer et al., 2018; Kummitha & Kummitha, 2021; Reuther et al., 2023;). Motivational orientation seems to be influenced among others, by personal factors such as gender, age, education, prior knowledge and experience, values, and goals (Fischer et al. 2018). Younger or more educated adults are more likely to have a sustainable entrepreneurial goal, whereas ageing or having lower education diminishes the odds of having a sustainable goal (Vuorio, 2017). Females are more likely to hold higher social goals than males (Hechavarría et al., 2017). Regarding psychological predictors, sustainability-oriented behaviour has been associated with sustainability commitment (Spence et

al. 2011), prior knowledge, desire to create value, or help others (Muñoz & Dimov, 2015), and lower aspirations to achieve high profits (Kirkwood & Walton, 2010). Individuals who prioritise freedom, self-expression and quality of life, are more likely to start sustainability-oriented ventures than those who prioritise material and economic security (Hechavarría et al., 2017). Fischer et al. (2018) investigated how motivation evolves along different stages of the sustainable entrepreneurship lifecycle. Sustainable entrepreneurs initially pursue the SDGs and start their ventures driven by a desire to solve social or environmental challenges. Later, as the venture matures, entrepreneurs recognise that they need to achieve financial stability to impact sustainable development (Harte et al., 2020). The higher sustainable commitment of the entrepreneurs appears to be inductive to higher innovativeness, growth expectations and exports, consequently leading to a higher national welfare (Neumann, 2023). However, sustainable entrepreneurship research acknowledges the insufficiency of the number of organisations or entrepreneurs that effectively balance economic, social, and environmental goals (Reuther et al., 2023). Therefore, exploring entrepreneurs' commitment to sustainability or finding which individual drivers contribute to the entrepreneurs' aspiration to make a difference in the world, appears to be a worthy avenue of research.

3. Aims of the Research

The main aim of this study is to offer new insights into the magnitude and persistence of entrepreneurs' commitment to sustainability across their motivational orientation and over time.

The GEM observatory (GEM, 2023) explores various types, stages, and motivational orientations of entrepreneurially active individuals. For example, Total Early-Stage Activity (TEA) indicates the engagement of adults (18-64 years old) in entrepreneurial activities not older than 3,5 years, whereas established business ownership (EBO) reflects those individuals who are engaged in owning or managing businesses more than 3,5 years old. In addition, GEM acknowledges heterogeneous motivational goals and aspirations related to engaging in entrepreneurial activity. Motivational orientations mapped through GEM research are: 1) to make a difference in the world; 2) to build great wealth or a very high income; 3) to continue a family tradition; and 4) to earn a living.

The GEM observatory (GEM, 2023) introduced a relatively new synthetic construct to measure sustainability commitment in 2021. This construct is composed of the seven items that capture consideration of social, and environmental implications, prioritisation of the social and environmental goals over profit, actions taken to minimise environmental damage or steps taken to maximise social gains of entrepreneurial actions, and SDGs awareness and actions toward these goals. Roomi et al. (2021) validated the importance of such a construct and pointed out that collecting empirical evidence from countries that are less represented in entrepreneurial research, and the addition of individual drivers of sustainable entrepreneurship, create valuable future research proposals for investigating sustainable entrepreneurship. As a response, this study uses Croatia as the case study for testing the available instrument to gain new insights in the magnitude and

alignment of the commitment to sustainability among new and established entrepreneurs.

Since motivational orientations and sustainable commitments may have strong mutual interactions that are relatively under-represented in the previous research, this study contributes to the existing literature by offering preliminary empirical evidence and insights on the differences in commitment across different motivational drives.

4. Research Methods

GEM uses an Adult Population Survey (APS) to annually collect data from a representative sample of adults (18-64 years) in each participating country. In 2023, a representative sample of 2000 adults in Croatia comprised 256 individuals who were engaged in owning or managing early-stage entrepreneurial activity (TEA), and 98 in established businesses ownership (EBO). Those sub-samples were used in this research. The variables analysed in this study, taken from the APS Croatia 2023 dataset, are described in Table 1.

Table 1. Description of the variables used in the research

Variable name	Variable description
GENDER	Gender of the respondents
AGE	Age of the respondents
EDUC	Education of the respondents (secondary, post-secondary, graduate)
OPPORT*	In the next six months, there will be good opportunities for starting a business in the area where you live
SUSKILL*	You personally have the knowledge, skill, and experience required to start a new business
FEARFAIL*	You would not start a business for fear it might fail.
EASY*	In your country, it is easy to start a business
OPPISM*	You rarely see business opportunities, even if you are very knowledgeable in the area
PROACT*	Even when you spot a profitable opportunity, you rarely act on it
CREAT*	Other people think you are highly innovative
VISION*	Every decision you make is part of your long-term career plan
EQUAL*	In my country, most people would prefer that everyone had a similar standard of living
NBGOOD*	In my country, most people consider starting a new business a desirable career choice
NBSTATUS*	In my country, those successful at starting a new business have a high level of status and respect
NBMEDIA*	In my country, you will often see stories in the public media and/or internet about successful new businesses
JOBS	Expected job growth (persons) in 5 years
SOC_HI	When making decisions about the future of your business, you always consider social implications (yes / no)
SOC_ENV	When making decisions about the future of your business, you always consider environmental implications (yes / no)
SOC_PRI	You prioritise the social and/or environmental impact of your business above profitability or growth (yes / no)
SDG_STEPS1	Have you taken any steps to minimise the environmental impact of your business over the past year? (yes / no)
SDG_STEPS2	Have you taken any steps to maximise the social impact of your business over the past year? (yes / no)
SDG_AWARE1	Are you aware of the 17 United Nations Sustainable Development Goals? (yes / no)
SDG_AWARE2	Have you identified any of the goals which are a priority for your business and defined a set of clear objectives, actions, and Key Performance Indicators? (yes / no)

Note: * measured by the Likert scale (1: strongly disagree to 5: strongly agree).

Source: Global Entrepreneurship Monitor, Adult Population Survey Questionnaire.

To analyse the dependence between stage of entrepreneurship (early, established) regarding the motivation for starting a business and variables related to social and environmental commitment, the chi-square test is used (Gujarati & Porter, 2009). The results are presented in tables 2 to 4. A p-value less than 5% (or 10%) indicates a statistically significant dependence between variables. Multiple linear regression is used for the purpose of identifying characteristics that have significant impact on one specific motivation for starting a business – to make a difference in the world. The additional goal was to recognise whether characteristics related to social and environmental issues have impact on entrepreneurs’ motivation for starting a business. The results are presented in Table 5. Data analysis was conducted using R.

5. Findings

5.1 Sustainability Consideration and Prioritisation

In the first phase of analysis, we investigated the difference between early-stage and established entrepreneurs regarding the motivation for starting a business and social/environmental implications or prioritisation of social and environmental goals over profit (shown in Table 2). Sustainability commitment is more frequently pronounced among established rather than early-stage entrepreneurs. Previous research indicated that consideration of sustainable development goals is higher in start-up phases than in the established phase. In contrast, the Croatian sample shows that more established entrepreneurs consider sustainable goals. In the case of Croatia, established entrepreneurs may have a better position to seize the full potential of programs and policies supporting the transition to sustainable development, which perhaps makes them more inclined to consider sustainability issues.

Table 2. Social/environmental implications and motivation for starting a business in early (TEA) and established entrepreneurs (EBO)

Motive		Social implications			Environmental implications			Social/environmental over profit		
		Yes	No	p	Yes	No	p	Yes	No	p
TEA	To make a difference in the world	90.1	9.9	.075	86	14	.280	79.8	20.2	.542
EBO		97.4	2.6		89.7	10.3		78.9	21.1	
TEA	To build great wealth or a very high income	77.9	22.1	.073	77.1	22.9	.315	61.8	38.2	.063
EBO		87.5	12.5		80.4	19.6		74	26	
TEA	To continue a family tradition	77.8	22.2	.326	85.7	14.3	.592	74.2	25.8	.489
EBO		81.4	18.6		84.1	15.9		74.4	25.6	
TEA	To earn a living	86.2	13.8	.295	82.8	17.2	.254	66.2	33.8	.134
EBO		88.9	11.1		86.4	13.6		73.8	26.2	

Source: authors’ calculations.

A significantly higher percentage of established rather than new entrepreneurs consider social implications among those individuals who aspire “to make a difference in the world”. In contrast, those individuals who are motivated “to build a great profit” have a higher percentage of respondents who are not considering

social implications when making decision about the future of their ventures. There are no significant differences between new or established entrepreneurs regarding environmental implications in neither of the motivational orientations. However, a significantly lower percentage of early-stage entrepreneurs (61.8%) prioritise social/environmental gains over profit in comparison with established entrepreneurs (74%) among those who are motivated “to build a great wealth and high income”. It seems that in Croatia, even among those who are motivated by building a great wealth, it is easier to balance sustainability and economic gains when the venture is already established than when it is in the emerging stage.

5.2 Enhancing Impact on Environment or Society

In the second phase of our analysis, we investigated the difference between early-stage and established entrepreneurs regarding motivation for starting a business and steps taken towards environmental and social impact. The results can be found in Table 3.

Table 3. Steps toward environmental/social impact and motivation for starting a business in early and established entrepreneurs

Motive		Steps to minimise environmental impact			Steps to maximise social impact		
		Yes	No	p	Yes	No	p
TEA	To make a difference in the world	74.7	25.3	.122	75.3	24.7	.579
EBO		84.2	15.8		73.5	26.5	
TEA	To build great wealth or a very high income	69.5	30.5	.57	59.5	40.5	.315
EBO		68.1	31.9		63.6	36.4	
TEA	To continue a family tradition	73.2	26.8	.606	66.1	33.9	.717
EBO		70.7	29.3		60.5	39.5	
TEA	To earn a living	67.2	32.8	.275	63.8	36.2	.519
EBO		71.4	28.6		63.5	36.5	

Source: authors' calculations.

Table 3 shows that there is no statistically significant difference between early and established entrepreneurs in any type of motivational orientation related to steps toward improving environmental and social impact. Regarding the magnitude of the positive responses, it is encouraging that a majority of respondents undertake actions to minimise environmental impact, whereas the percentages of those who are taking steps to maximise social impact are slightly lower. These findings may indicate that entrepreneurs are perceiving environmental impact as more regulated and therefore more entrepreneurs try to avoid fines. Another explanation may be that entrepreneurs see the opportunity to seize the financial or non-financial incentives related to green transition.

5.3 Awareness of SDGs and Actions toward these Goals

Results of the third phase of our analysis can be found in Table 4. Interestingly, most of the respondents are not aware of the SDGs. The only exception is those who are motivated “to make a difference in the world”.

Table 4. Awareness of SDGs and actions toward priority goals regarding motivation for starting a business in early and established entrepreneurs

Motive		Awareness of SDGs			Actions toward priority goals		
		Yes	No	p	Yes	No	p
TEA	To make a difference in the world	71.1	28.9	.043	60.9	39.1	.027
EBO		44.7	55.3		88.2	11.8	
TEA	To build great wealth or a very high income	25	75	.420	60.9	39.1	.051
EBO		24.5	75.5		83.3	16.7	
TEA	To continue a family tradition	26.8	73.2	.478	85.7	14.3	.086
EBO		27.3	72.7		100	0	
TEA	To earn a living	23.6	76.4	.136	56.7	43.3	.005
EBO		30.8	69.2		90	10	

Source: authors' calculations.

As shown in Table 4, the percentage of those who aspire to make a difference and who are aware of SDGs is significantly higher for early-stage than established entrepreneurs. Since the SDGs Agenda includes over 100 indicators (according to the global reporting standards for sustainability development - GRI, 2021), multitude of areas and targets, that have been sparsely promoted in Croatia for only the last couple of years, new entrepreneurs are more aware of them. On the other hand, the differences between early-stage and established entrepreneurs are statistically significant for all motivational orientations regarding the actions taken toward priority goals. A higher percentage of established entrepreneurs reported they are taking these actions. This finding is confusing, since only a minority of the respondents are aware of the SDGs. However, the explanation of these actions in the questionnaire (such as the identification of the priority goals and setting clear objectives, actions, and key performance indicators) reflects the traditional “strategical planning” approach which is unavoidable in doing business irrespective of the identified goals, particularly in the established phase, which may explain the significant difference between early-stage and established entrepreneurs.

5.4 Predictors of Entrepreneurial Activity Driven by the Motivation “to Make a Difference in the World”

In the last phase of our empirical research, the goal was to find which characteristics have significant impact on motivational aspiration “to make a difference in the world” (measured on Likert scale 1- strongly disagree; 5 - strongly agree). This motivational orientation has been considered an important segment of opportunity-driven entrepreneurship, holding significant interaction with aspects of sustainable commitment. In line with the literature, the various demographical, psychographic, and sustainable commitment factors may contribute to this motivational trait. Two multiple regression models were developed separately for early-stage and established entrepreneurs. Results, emphasising only those variables that were found significant are presented in Table 5.

Table 5. Multiple regression model for early-stage entrepreneurs and established entrepreneurs

Variable	To make a difference in the world - TEA		To make a difference in the world - EB	
	B (SE)	p-value	B (SE)	p-value
EASY	-0.1144 (0.063)	.0717		
PROACT	-0.1602 (0.066)	.0160		
VISION	0.2223 (0.077)	.0045		
NBSTATUS	0.1660 (0.072)	.0221		
SOC_HI (yes)			1.1581 (0.427)	.008
SDG_STEPS2 (yes)	0.5587 (0.1819)	.0023		
SDG_AWARE1 (yes)			0.8991 (0.331)	.008

Source: authors' calculations.

Among early-stage entrepreneurs, the aspiration to make a difference increases with a higher valuation of the long-term career plan, more favourable perception of the high status of entrepreneurs in society, and taking actions to maximise the social impact of the business. Early-stage entrepreneurs feel that the more difficult it is to start a business, the more important their motive is to make a difference in the world. In addition, a lower inclination to act on the perceived opportunity decreases an early-stage entrepreneur's aspiration to make a difference in the world.

Established entrepreneurs who consider the social impact of their future decision in business demonstrate a higher motivation to make a change in the world. Similarly, awareness of the SDGs' correlates with a higher motivation to make a positive difference. In the case of Croatia, this finding may be the consequence of the cultural norms and socialistic background, as well as the fact that social responsibility has a longer tradition than responsibility toward the environment.

6. Conclusions

This study provides empirical evidence and insight into how sustainability commitment varies across motivational drives or stages of entrepreneurial ventures. It therefore contributes to enhancing the quality of entrepreneurial activity and more effective adoption of the sustainability development goals.

Our study found encouraging evidence of the magnitude of entrepreneurs' general sustainability commitment. The majority of entrepreneurially active persons in Croatia considers sustainability impact, prioritise it over profit gains, take steps to enhance it, or take planned actions. A significantly higher percentage of those who are oriented to make a difference in the world are considering social implications in making decisions of the future of their business, are aware of the SDGs, and are setting clear objectives and key performance indicators for measuring progress to priority goals. However, entrepreneurs have heterogeneous motivational orientations which are not clearly delineated in terms of sustainability commitment. Such findings corroborate ongoing debate about the shortcomings of deconstructing entrepreneurial motivation to the opportunity or necessity driven ventures. Alignment of sustainability commitment along motivational orientations remains debatable, since our study confirmed partial support to the presumption that

sustainability commitment is more pronounced among those entrepreneurs who engage in entrepreneurial activity with the aspiration to make a difference in the world. In addition, this study suggests that the general sustainability commitment may change over time. Significant differences regarding social implications, awareness of SDGs and actions taken to define objectives and KPIs are noticeable between new and established entrepreneurs.

Analysis of the individual drivers of the motivation to make a difference in the world in our study shows that psychological and sustainability attitudes, values, and traits have a decisive role in increasing aspirations to make a difference among early-stage entrepreneurs. Neither of the demographic factors shows a significant effect on this motivational orientation. Findings indicate that emphasising proactivity through the educational system, policies promoting the easiness of starting a business, long-term career plans, and social responsibility of new entrepreneurs are inducive to making a difference in the world and enhance new entrepreneurs' willingness to fulfil their role as sustainable development catalysts.

The limitations of this study originate from choosing only one country, namely Croatia as a case of detecting nuances between motivational orientation and sustainable commitment. The additional limitation is related to the design of the GEM questionnaire and the size of the available sample, which resulted in deploying basic statistical tests and gaining only preliminary results which are not representative for other countries or cases. However, GEM annually collects a large amount of data using strict procedures and instruments and therefore allows the accumulation of data which are methodologically consistent and comparable longitudinally, at the level of one country, or across numerous countries. Either of these avenues for comparative or longitudinal studies related to sustainability and entrepreneurship creates promising opportunities for future studies with more robust methodology and larger samples.

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