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Original scientific paper

THE MOTIVATION STRUCTURE OF SOCIAL ENTREPRENEURS AND ITS ANALYSIS FROM THE PERSPECTIVE OF SELF-DETERMINATION THEORY

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Abstract

In spite of the increasing research attention on social entrepreneurs, there is a lack of empirical studies investigating their motivations. Moreover, in ex-socialist countries, like Hungary, the foundation and acceptance of social enterprises are in a few decades delay in relation to Western Europe, which increases the need of related research in the region. The aim of the present qualitative study was to explore social entrepreneurs' motivation and to investigate to what extent this motivational structure is autonomous. To reach these goals the researchers applied semi-structured personal deep interviews with open coding and analysis method.

The identified motivational structure includes 19 motivational subcategories grouped into 5 main categories: social motivations; entrepreneurial motivations; personal motivations; environmental motivations; and governmental incentives. According to the results, for someone to become a social entrepreneur, the coexistence of at least three motivational main categories (entrepreneurial, social, and personal) seem to be necessary, while the other two main motivational categories (governmental incentives and environmental motivations) are only supportive ones. The research also found that the motivation of social entrepreneurs is dominantly autonomous. Controlled motivations are only significantly presented in two main motivational categories (personal motivations and governmental incentives).

Keywords: social entrepreneur, motivation, goals, self-determination theory

INTRODUCTION

Nowadays, a spreading solution for current social problems is the concept of social enterprises, which means enterprises are established to solve social problems in a financially sustainable way (Borzaga and Solari 2004, Smith et al. 2012, Roh 2016). However, while the number of publications dealing with social entrepreneurship is increasing, the number of empirical studies available is still low (Cukier, et al. 2011, Sastre-Castillo et al. 2015). According to Shepherd and Patzelt (2017), there is much more to learn and explore in the framework of sustainable entrepreneurship (it contains social and environmental entrepreneurs and even some elements of the CSR). Moreover, in the post-socialist countries-

including Hungary- the empirical research need is even higher, as the first social enterprises were established only decades later compared to, e.g. Western European countries. Moreover, in Hungary, there is cultural opposition against cooperatives and general lack of trust in solidarity movements, which makes the operation of social enterprises more difficult (G. Fekete et al. 2017). Furthermore, there is no generally accepted legal definition and form for the concept of social entrepreneurs in Hungary, which makes it difficult to measure or observe them consistently (G. Fekete et al. 2017). However, empirical research carried out in this region can help to deepen our understanding of social entrepreneurs and entrepreneurship.

Carsrud and Brännback (2011) summarize that in the early ages of entrepreneurship research, investigating entrepreneurs' motivation was popular among researchers, but with time, the number of researches has continuously decreased, leaving the research field undiscovered. Moreover, even in present days, too little attention is paid to examining entrepreneurial motivations (Elfving et al. 2009) and most of the studies lack the integration of psychological and cognitive aspects (Yitshaki and Kropp 2018). In addition, researchers focus primarily on conventional profit-oriented entrepreneurs' motivation (Germak and Robinson 2014). In the case of social entrepreneurs, most of the studies aim to separate them from other entrepreneurial and organizational forms (Miller et al. 2012; Sastre-Castillo et al. 2015). Other interesting aspect is that most of those studies that investigated the motivations of social entrepreneurs focused mainly on prosocial motivations and gave little attention to the profitmaking and innovation parts of their motivational structure (Douglas and Prentice (2019) also added that researching in this more complex way can lead to a broader theory about entrepreneurs, which will include social entrepreneurs under the same theory as conventional entrepreneurs.

Moreover, social entrepreneurs have a dual purpose within the enterprise (Zahra et al. 2009, Barraket et al. 2016, Roh 2016), which can increase their level of stress and decrease well-being (Kibler et al. 2019). According to Kibler et al. (2019), this negative impact can be mitigated if entrepreneurs' motivation becomes autonomous and intrinsic. Therefore, self-determination theory seems to be suitable to analyze which motivations belong to which regulatory styles (on the scale of intrinsic to extrinsic motivations) (Deci and Ryan 2000, Ryan and Deci 2000). In conclusion, the field of social entrepreneurs' motivations requires further empirical research (Carsrud and Brännback 2011, Miller et al. 2012, Renko 2012, Germak and Robinson 2014), especially in an Eastern-European context.

Present study intends to contribute to the fulfilment of the above-described research gap and integrate the social and business motivations of social entrepreneurs in the same motivational model. The study's **main research question** is what motivates Hungarian social entrepreneurs to start and operate social enterprises. For the better and deeper understanding of the motivations, **besides this main question**, the study also investigated to what extent social entrepreneurs' motivation is autonomous. The first (and main) part of the empirical study is a qualitative exploratory research using a series of semi-structured depth interviews. The second part of the empirical study, with the goal of a better and deeper understanding of the motivations, uses deductive methodology by using the conceptual framework of an existing theory (self-determination theory) (Deci and Ryan 2000).

We start our paper with introducing the theoretical background of the research, including the definition of social entrepreneurs, their motivations, and the presentation of selfdetermination theory as a categorization tool. After that, we shortly describe the methodology used, the research sample and the Hungarian context of social entrepreneurs. Empirical results are separated into two major parts 1) description of the motivational structure of social entrepreneurs and 2) the analysis of this structure from the perspective of the selfdetermination theory. After the results, there is a discussion chapter and we finish our study with conclusions.

THEORETICAL BACKGROUND

Numerous definitions of social enterprises exist in the literature, also reflecting regional differences (Bacq and Janssen 2011, Sastre-Castillo et al. 2015). It is common in all approaches that the primary goal of social enterprises is not profit maximization, but to create 'social value', by serving the interest of a community/group. This social goal explicitly appears in the mission of social enterprises (Dees 2001, Blackburn and Ram 2006, Defourny and Nyssens 2010a, 2010b, BIS 2011, Borzaga et al. 2012). Thus, social enterprises aim to provide solutions for (essential) social problems while functioning within the frames (circumstances) of the market (economy) (Defourny and Nyssens 2010a).

The social enterprise definitions differ in the importance of social interest and goals (Smith et al. 2013); profit allocation (Yunus 2006, Borzaga et al. 2012, Roh 2016); innovativeness (Blackburn and Ram 2006, Tóth et al. 2011); economic risk taking (Defourny and Nyssens 2010a); and importance of democratic decision-making (Defourny and Nyssens 2010b, G. Fekete et al. 2017). Other aspects that make more complicated to define social enterprises are the competing concept like corporate social responsibility, corporate sustainability (Málovics

et al. 2011) or policy entrepreneurship (Hemingway 2005), because in these cases that boundaries not always clear (Hemingway 2005).

Within the present research, authors define **social enterprises** as enterprises that were established or transformed to solve social problems in a financially sustainable way. Consequently, social entrepreneurs are thus individuals who founded or manage enterprises characterized by the above criteria (Bosma et al. 2016).

A number of researches investigated why people become entrepreneurs, however, there are researchers who think there is still much to discover in this area (Elfving et al. 2009, Carsrud and Brännback 2011). **Motivation** can be described with those psychological processes which energize, direct, and sustain action (Pardee 1990, Ramlall 2004, Locke and Baum 2007, Carsrud and Brännback 2011, Renko 2012). Some researchers emphasize that motivations and intentions are the most important elements in defining social enterprises and distinguishing them from 'conventional' enterprises (Tóth et al. 2011).

Separation of social and commercial motivations

In the initial entrepreneurial studies, researchers thought that entrepreneurs are motivated to risk their personal resources because of the hope of financial return and profit maximization (Carsrud and Brännback 2011, Miller et al. 2012). Carsrud and Brännback (2011) added that entrepreneurs with business focus indeed start an enterprise for money, prestige, and/or status, however, these factors cannot explain every entrepreneur' motivation. Among social entrepreneurs, the previous self-centered motivational researches in most situations are inadequate (Miller et al. 2012), because one of their main motivators can be the social value creation (Carsrud and Brännback 2011, Renko 2012). Renko (2012) highlights that the previous studies investigated entrepreneurial motivations (such as self-fulfillment, financial success, personal growth, status, and autonomy) from the perspective of the individual's or one's family's well-being and wealth, and they neglected the prosocial motivations. Douglas and Prentice (2019) summarizes that contrary to the "self-centered" profit and psychic income seekers, there are social entrepreneurs who are considered as "other-centered", and they provide benefits for people outside the enterprise. According to the results of Repisky and Tóth (2019), social entrepreneurs can be described not only with need for achievement as conventional entrepreneurs, but with a higher degree of need for affiliation (desire for interpersonal relationships) and some need for power (influence others), which can be caused by their pro-social motivations and collectivistic values.

Renko (2012) also added that previous researches showed that prosocial motives are connected to the individual's well-being, and social entrepreneurs can follow both prosocial

and self-centered goals, too. In addition, social entrepreneurs' secondary objective can be profit seeking to finance and facilitate the growth of the social mission (Douglas and Prentice 2019) or from other perspective entrepreneurial goals (Christopoulos and Vogl 2015). On the other hand, the balancing between these two different motivations (social and business) can increase the stress level of entrepreneurs and it can negatively impact their subjective well-being (Kibler et al. 2019).

Role of compassion and empathy

Compassion is the broader manifestation of empathy, which is an antecedent of social entrepreneurial intention (Forster and Grichnik 2013). Miller et al. (2012) stated that compassion can support people to become social entrepreneurs. In the approach of Miller et al. (2012), compassion is a pro-social emotion that connects the person to a suffering community, and it makes the person more sensitive to others' needs and pains. Other researchers also state that empathy is a key distinguishing factor to separate social entrepreneurs from commercial ones (Bacq and Alt 2018). However, according to the results of Bacq and Alt (2018), empathy has an indirect support for social entrepreneurial intentions through two mediating mechanisms: SE self-efficacy and social worth. With this kind of prosocial motivations, entrepreneurs can understand others' needs better and they construct better solutions for these needs (Forster and Grichnik 2013, Shepherd and Patzelt 2018). In the opinion of Miller et al. (2012), this kind of integrative thinking can support the synthesis of different interests, like the two basic interests of social enterprises (social and business interests).

In the theory of Miller et al. (2012), the other process which can foster becoming a social entrepreneur is the prosocial cost-benefit analysis. In this type of cost-benefit analysis, our costs and benefits complement with others' costs and benefits, so we internalize our decision impact on others. In this behavior, non-action can be perceived as a kind of "emotional tax". In this theory, the third process is the escalating commitment to reduce others' suffering, because in this way an individual can see oneself helpful and caring, moreover, it shortens the distance between one's ideal self and actual self (Miller et al. 2012).

Yitshaki and Kropp (2018) summarized that there are two types of compassion: selfcompassion and other-regarding compassion. In the previous segment, we mostly discussed the other-regarding compassion, which "occurs when a person notices another person's suffering, feels empathic concern and responds to the suffering" (Yitshaki and Kropp 2018: 12). "Self-compassion differs from other-regarding compassion because the genesis of selfcompassion is awareness of one's own suffering, a desire to heal oneself and increase wellbeing" (Yitshaki and Kropp 2018: 12). When a social entrepreneur follows this selfcompassion, which is in an inner process, the entrepreneur feels a desire to alleviate not only his/her own suffering, but also others' suffering (Yitshaki and Kropp 2018). This type of relatedness to the problem can appear in the way that someone is disabled or has serious health problems, and in this situation he/she will search for a career option that offers flexibility and autonomy, such as the entrepreneurial life. In the USA, disabled people choose entrepreneurial career twice as many as other people (Shepherd and Patzelt 2018). This type of personal relatedness can support someone to become social entrepreneur, because he/she will experience the drawbacks of social problems first-hand. Similarly, when an environmental or societal problem threaten someone's psychological or physical health, one will tend to do everything to solve this problem (Shepherd and Patzelt 2018).

Goals and motivational structures

Germak and Robinson (2014) studied social entrepreneurs' motivation with qualitative methods, through interviews. From their results 5 major motivational themes emerged: 1) personal fulfilment; 2) helping society; 3) nonmonetary focus; 4) achievement orientation; and 5) closeness to social problem. Douglas and Prentice (2019: 76) carried out research which resulted in a three-dimensional motivational structure that "not only conforms to the three pillars of social entrepreneurship but is also applicable to commercial entrepreneurs who wish to innovate, make profits, and serve a social purpose (practicing corporate social responsibility)".

According to an international study (G. Fekete et al. 2017), the three most common elements of social entrepreneurs' missions were improving the labour market situation, job creation (21%); goals related to the local community (12%); and improving the situation of people with disabilities (11%). In this study, the typical business starting motivations were: realization of social or community goal with the involvement of the stakeholders (85%), solving social problems (83%), supporting the public good (81%) and enhancing sustainable development (80%).

Several researchers agree that the goals and motivations of entrepreneurs can change over time (Elfving et al. 2009, Carsrud and Brännback 2011, Miller et al. 2012, Renko 2012). For example, someone's initial goal was to provide living for oneself, but later it has changed with the emergence of growth opportunities (Elfving et al. 2009), or a focus shift can occur when a person starts a business because of the enjoyment of the activity, but over time the financial benefits become more appreciated (Carsrud and Brännback 2011). According to Miller et al. (2012) there can be a focus shift between the self-centred and prosocial motivations, however, leaders' prosocial motives usually stay strong over time (Renko 2012). Therefore, it can be assumed that a social enterprise rarely turns into a traditional profit-oriented business.

Self-determination theory (SDT)

The importance and impact of goals have been given growing attention among motivation studies in recent years (Carsrud and Brännback 2011), because well-chosen goals impact enterprises' performance and survival chances positively (Robichaud et al. 2001, Rosa et al. 2006, Locke and Baum 2007;). Both the personal definition of success (Sherman et al. 2016) and entrepreneurial goals (Carsrud and Brännback 2011) can be divided into extrinsic (such as wealth, status, or power) and intrinsic factors (such as achievement or personal fulfilment).

It is necessary to introduce self-determination theory to understand the results of the secondary research question. The secondary goal was to understand the social entrepreneurs' motivations more deeply and not to develop a new general goal motive categorization. This is why we choose an existing theory to categorize the goal motives of social entrepreneurs (self-determination theory). We chose this theory because it has the smooth transition between autonomous and controlled motivations.

To understand this theory, first, we have to define goal contents (intrinsic vs. extrinsic) and goal motives (autonomous vs. controlled), The goal motive represents why people pursue certain goal contents (Deci and Ryan 2000; Vansteenkiste et al. 2006). For example, students can choose an after-school job to earn money (extrinsic goal content), because they feel pressured by their parents (controlled motive) or because they have a greater goal, such as going to college and they need money to achieve it (autonomous motive) (Vansteenkiste et al. 2006). In relation of this study the explored motivation structure will describe the goal content and using the following categorization of self-determination theory the goal motive will become visible too.

The importance of knowing social entrepreneurs' goal motives can be twofold. Firstly, it can be crucial to have as much internalized motivation as it is possible because it can be harder to stay alive and to hold on in a social enterprise than a conventional one, and surviving can be the primary success for them (Sharir and Lerner 2006). Moreover, previously it was summarized that social entrepreneurs can feel bigger stress and decreasing well-being because of the dual nature of their business (Kibler et al. 2019). According to Kibler et al. (2019), this negative effect can be mitigated if the entrepreneurs' motivation becomes autonomous and intrinsic, which increases the importance of researching this aspect of their motivation too.

In the self-determination theory (SDT), there are three basic psychological needs (Deci et al. 2001, Greguras and Diefendorff 2009): need for autonomy (need to choose freely and have

control over one's actions), need for competence (need to have an effect on one's outcomes and surroundings in optimally challenging task) and need for relatedness (need to be connected and respected by others and sense of caring and reliance with others). According to SDT, to reach psychological growth, well-being, and optimal functioning, it is essential to satisfy these three psychological needs (Greguras and Diefendorff 2009).

In the Ryan and Deci's (2000) formulation, **extrinsic motivation** is when we perform an activity which leads to a clear result, and **intrinsic motivation** is when we do something for the inherent enjoyment. In the **self-determination theory**, extrinsic motivation can be divided into four parts on a continuum between amotivation and internal motivation, according to the degree of internalization and the degree of autonomous versus controlled regulation (Deci and Ryan 2000, Ryan and Deci 2000, Gagné and Deci 2005), as it is illustrated on Fig. 1. According to previous studies, all three psychological needs are necessary for internalization (Gagné and Deci 2005).



Figure 1 The self-determination continuum and the summary of the six regulatory styles

Source: Own editing based on Ryan and Deci (2000: 72)

In the Tab. 1, there is a summary about the basic characteristics and boundaries of each regulatory style. However, it needs to be clarified, that the external and introjected regulations are **controlled motivations** and identified, integrated and intrinsic regulations are **autonomous motivations**.

| NAME | DESCRIPTION | References |
|----------------|---|--------------------------------------|
| | In this state, one lacks the intention to act and he/she | Bandura 1993, |
| | does not really know why he/she is doing it. The | Deci and Ryan 2000, |
| Amotivation – | reason of amotivation can be that the person does not | Gagné and Deci 2005 |
| non-regulation | value the activity, or one does not feel competent for | Pajor 2015, |
| | the task or the person believes in external locus of | Rotter 1966, |
| | control, i.e. one cannot control one's own life. | Ryan and Deci 2000 |
| | This is extrinsic motivation in the conventional | Deci and Ryan 2000 |
| Extrinsic | meaning and it is the prototype of controlled | Pajor 2015 |
| motivation – | motivation. This regulatory style is less autonomous, | Pólya and Martos 2012 |
| external | so there is no internalization at all. In this case, one is | Ryan and Deci 2000 |
| regulation | acting because of external rewards or punishments | Vansteenkiste et al. 2006 |
| | and threats. | |
| | In this case, the regulations are partially internalized | |
| | by the person, but the person does not consider them | |
| | as her/his own, so the person is acting because of | Deci and Ryan 2000, |
| Extrinsic | 'have to' and not 'want to'. In the case of introjected | Gagné and Deci 2005, |
| motivation – | regulation, people engage in an activity to comply | Pajor 2015, |
| introjected | with internal pressure, which can be avoidance of | Pólya and Martos 2012, |
| regulation | internal punishments, such as feelings of guilt and | Ryan and Deci 2000, |
| | shame, or through ego-involvement people try to | Vansteenkiste et al. 2006 |
| | prove they are capable of doing a certain task and in | |
| | this way they can be proud of themselves. | |
| | In this case, the person identifies the value of a | |
| | behaviour and accepts the regulation as one's own. In | D : 1D 2000 |
| T (• • | this autonomous type of extrinsic motivation, people | Deci and Ryan 2000, |
| Extrinsic | feel greater freedom and volition, because the chosen | Gagne and Deci 2005, |
| motivation – | seels identity and well being as in this asso we can | Pajor 2013, Dálva and Martas 2012 |
| regulation | talk about self determination. A good example for | Pyon and Daci 2000 |
| regulation | identified regulation is when someone admits that | Vansteenkiste et al. 2006 |
| | everyising is good for one's health so one starts | valisteelikiste et al. 2000 |
| | doing sports, but not for the inherent enjoyment | |
| | This is the fullest type of internalization and the most | |
| | autonomous volitional extrinsic motivation. In this | |
| | regulatory style, people not only identify the value | |
| | and importance of the behaviour, but they integrate | |
| Extrinsic | and synthesize it with their identity, interests, and | Deci and Rvan 2000. |
| motivation – | values. Even if the perceived locus of casualty is | Gagné and Deci 2005, |
| integrated | internal, integrated regulation does not become an | Ryan and Deci 2000 |
| regulation | intrinsic motivation, because people choose the | 2 |
| | behaviour as instrumentally important for personal | |
| | goals, so they are doing it for the desired outcome | |
| | and not for the inherent enjoyment of the activity. | |
| | This is the prototype of self-determinant and | Deci and Ryan 2000, |
| Intrinsic | autonomous behaviour and classical intrinsic | Pajor 2015, |
| motivation – | motivation, when people are acting because of the | Pólya and Martos 2012, |
| Intrinsic | inherent enjoyment or interest of the activity. This | Ryan and Deci 2000, |
| regulation | type of regulation is closely the same as we call flow | Shepherd and Patzelt |
| | state. | 2018 |

 $Table \ 1 - Defining \ regulatory \ styles \ of \ SDT$

Source: Own editing based on articles referred in the table

METHODOLOGY, SAMPLE AND CONTEXT

After revising the theoretical background, we present in this chapter the applied methodology, the inquired entrepreneurs and the Hungarian context. The study's **main research question** is what motivates Hungarian social entrepreneurs to start and operate social enterprises. There are numerous effects from the environment which can stimulate enterprise launching, such as competitors, regulations of the country, or the availability of venture capital (Shane et al. 2003). However, this study's focuses only on the motivational factors. Because of the exploratory nature of the theme, the research was inductive and qualitative, and it focused on deeper understanding.

Besides this main question, it was investigated to what extent social entrepreneurs' motivation is autonomous in order to gain deeper understanding of the obtained motivational structure. At this part of the research the goal was not to build a new general motivation categorization but to understand goal motives of social entrepreneurs deeper based on an existing categorization framework – as a deductive element of the study. We chose self-determination theory (Deci and Ryan 2000), which has not only two endpoints (extrinsic, intrinsic), but it separates 4 types of extrinsic motivation according to the degree of felt autonomy, which helps this exploratory research to get more finely detailed results.

Methodology

During the research semi-structured personal in-depth interviews were conducted with Hungarian social entrepreneurs. The interviews were conducted along with predetermined topics, with a continuous focus on the research questions. However, the questions were opened to give the interviewees freedom to talk about what is important for them within the framework of the topic (Kvale 2007). With this methodology, we can understand the interviewees' point of view, opinion, and emotions better with allowing the emergence of interesting new observations. Before data gathering, the interview questionnaire was discussed with a Hungarian business consultant who specialized on social entrepreneurs to contain more relevant questions.

To find the potential interviewees more channels were used in two rounds. To reach the first group of potential interviewees we used the, recommendations of the mentioned business consultant and we participated on an event organized for social entrepreneurs. In order to increase the sample size, in the second round, we browsed the list of the winners of tenders established to help social enterprises The main selection criterion for potential interviewees was to meet the used social enterprise definition formulated by Bosma et al. (2016). In the absence of legal definition and form, and usage of this wide research definition caused some

degree of researcher subjectivity in the sampling. To decrease this subjectivity multiple ways was used to check the criterion: recommendation of the business consultant, short introduction of enterprises on the event, online introductory materials of winners of social enterprise tenders, and personal short talks with the potential social entrepreneurs. Most of the potential interviewees were asked in person (at the event arranged for them and in local crafts market) for participation and from 17 invited entrepreneurs, 9 participated in the research. After the agreement of the interviewees, the interviews were recorded and typed word-for-word with the purpose of a more accurate analysis.

As this was an exploratory research, during the analysis it was continuously monitored that how many new individual motivations appeared in each interview to determine the saturation point. In the last three interviews we found only three new individual motivations and all of these were in the penultimate interview; and the rest of their motivations only confirmed the previously revealed closely 40 other ones. Consequently, we reached the saturation point and there wasn't need to start searching for new interviewees. During the analysis we tried to use as much opened text analysis method as possible, so every important theme could emerge in the framework of motivation. The interviews were analysed in four phases.

1) In the first phase, both two of us coded the interviews independently from the existing theories to allow the emergence of new results. In this initial phase, 'in vivo' codes were also used to preserve the interviewee's point of view better (Charmaz 2006). We used codes that can be traced back to interview parts for the case of necessary recoding.

2) In the second phase, the existing codes were organized into larger logical units (categories), which emerged from the interviews and were relevant from the perspective of motivation. In this way the categories are more abstract than codes and can be the basis of theory making (Gelencsér 2003). In the following segments this methodologically larger units will be referred as individual motivations.

3) The goal of the third phase was consensus making. The first two analysis phases were conducted independently from each other for the purpose of quality assurance, to decrease researchers' subjectivity and to increase validity and reliability. Consequently, we discussed our results only in this third phase. The outcome of this phase was the final list of individual motivations and the motivational categories. To make the theory more valid, all emerged individual motivations were used to preserve the opinions of the interviewees more accurately.

4) In the last phase, we analyzed the previously accepted motivational structure from the perspective of the self-determination theory as a framework to determine which goals were

autonomous and which were controlled. Firstly, we placed case by case each individual motivation independently (it means closely 150 individual motivations) in the six regulatory styles of the self-determination theory from amotivation through the four types of extrinsic motivation to intrinsic motivation. To do this it was necessary to read again the interviews to understand the context better, why the individual motivations motivate each entrepreneur. Then this individually categorized motivations were summarized into tables to understand better their distribution in the six regulatory styles of SDT. As in previous phases, firstly this categorization was made independently from each other, which was followed by the discussion and consensus making of the results.

The sample

In this research, nine interviews with social entrepreneurs were analysed. The investigated social enterprises were mostly micro enterprises with less than 10 employees, but some of them become small companies and had little more employees, like the 5th enterprise with 19 people. Among them there were freshly started organizations with 1-2 years operation (like 1; 6; 7; 9) and growing businesses with more than 3 years of operation (2; 3; 4; 5; 8). The main activities of the social entrepreneurs are summarized in Fig. 2.

| | Εςονομίς Αςτινιτή | SOCIAL ACTIVITY |
|----|--|--|
| 1. | Furniture renovation, making of paintings and bags from used materials | Employing people who are excluded from the labor market |
| 2. | Making handicraft products, holding handicraft workshops | Supporting and employing people with central nervous system disease |
| 3. | Operating integrative family crèche for children and babysitter mediation | Developing and integrating children with SEN; employing disadvantaged people |
| 4. | Making handicraft products | Community building for disadvantaged youngsters; employing disadvantaged people |
| 5. | Making handicraft products | Employing disadvantaged people; community building |
| 6. | Consultancy, mentoring and investment mediation for social entrepreneurs | Promoting social entrepreneurs among venture capitalists; community building |
| 7. | Applied art, manufacturing of 3D wall panels | Community building and employment of disadvantaged people |
| 8. | Fruit juice and briquette production | Promoting healthy lifestyle; building short supply chain |
| 9. | Operating intelligent playhouse; creative workshops; knowledge dissemination | Helping disadvantaged children; supporting Roma integration |

| Figura | 2 | Brief | charact | erization | of the | social | entre | nreneuro | in | the sam | nle |
|---------|---|-------|---------|-----------|--------|--------|-------|----------|----|---------|-----|
| rigure. | 4 | Difei | charact | enzation | or the | social | enue | preneurs | ш | the sam | pre |

Source: Own editing

In Fig. 2 it can be seen that the most common social goal was the employment of people with changed working abilities or the disabled. The importance of integrating disabled people in workplaces is important not only in Hungary (Csillag et al. 2018), but all over the world (Gidron 2014). The social goal to integrate the Roma also appeared, as Roma people in Europe are clearly among the poorest and most vulnerable ethnic minorities and often suffering from spatial segregation (Cretan et al. 2020). Other social goals were improvement of the quality of life of people who are suffering from a special disease; supporting families with small children and establishment of local food chains. The investigated enterprises have a wide range of economic activities, such as furniture renovation; fruit juice and briquette making; operating nursery and playhouse; and even preserving traditions and selling handicraft products.

Hungarian context

Before presenting the results it is essential to understand the Hungarian context and situation of social entrepreneurs. From the historical perspective the concept of social entrepreneurship is in its infancy and there isn't even any accepted definition in Hungary, which hardens to measure or research their situation (G. Fekete et al. 2017). Because of the short history of social entrepreneurship in Hungary and the lack of legal definition, the number of social enterprises can only be estimated (Tóth et al. 2011, European Commission 2014). There are researchers whom place this number around a few hundred: 300-400 (Petheő 2009) or 600 (Kiss 2017), however, according to the calculations of G. Fekete et al. (2017) in Hungary there can be potentially 3360 social enterprises. To place these numbers in context, based on the database of the Hungarian Central Statistical Office at 2018 the average number of registered enterprises with legal entity in Hungary was 523 thousand, which barely decreased to mid-2023 (517 thousands). However, the situation is similar in the whole Central and Eastern Europe, because the importance of the social enterprises is marginal and most of these enterprises cannot reach the economic sustainability with only business revenue, they need different donations, grants and volunteer work (G. Fekete et al. 2017). However, in the research of SEFORIS consortium (2016) they found out that more than 60% percent of the financing of social enterprises comes from revenues and different fees; and only 25% of the financing comes from grants and also the importance of external resources is decreasing. In contrary, G. Fekete et al. (2017) found nearly the opposite of this, 36% percent revenue and 52% percent different external financial support.

Moreover, as the consequence of the socialist era, there is cultural opposition against cooperatives and general lack of trust in solidarity movements, which hardens the operation of social enterprises in Hungary (G. Fekete et al. 2017). G. Fekete et al. also added that the

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social entrepreneurs leadership and business skills are very low and they usually need some kind of consulting services like the international organization of Nonprofit Enterprise and Self-Sustainability Team (NESsT).

RESULTS - MOTIVATIONAL STRUCTURE OF SOCIAL ENTREPRENEURS

After summarizing the economic and social goals of the investigated social enterprises, the identified motivational structure of social entrepreneurs will be presented. Then we present how autonomous the entrepreneurs' motivations are, using the SDT as categorization framework.

During the interviews we investigated the motives of social entrepreneurs through several questions. From these interviews, more than 40 individual motivations emerged, which were grouped into 19 motivational subcategories. The 19 motivational subcategories can be classified into 5 main motivational categories as follows: 'Social motivations', 'Entrepreneurial motivations', 'Personal motivations', 'Environmental motivations' and 'Governmental incentives'. So the emerged motivational structure contains 3 levels: individual motivations, motivational subcategories and main motivational categories, and the two bigger, more abstract constructs are presented on the Fig. 3. In the following segments there will be a short description of each motivational category and subcategory using the emerged individual motivations.



Figure 3 Social entrepreneurs' motivational structure in Hungary

Source: Own editing

1) Social motivations: The individual motivations in this main category primarily have a dominant social origin (social interests), and in some cases this is extended with motivations to engage in economic activity (economic interests). This main category contains the categories where the pursuit of entrepreneurial activity is encouraged by the need of financing the social goals set by the organization (*such as implementation of rehabilitation programs or children's camp*), or the economic activity itself is the tool for achieving the social goal (*such as employment as a 'therapeutic' (5) opportunity; sale of handicraft products made by disabled persons*). This dual direction is in line with the thoughts of Miller et al. (2012) about how entrepreneurs can channel the two basic interests of a social enterprise (social and economic) into one direction. In their opinion they either reinvest the profit into the social goal, or they should treat their beneficiaries as costumers rather than recipients of gifts.

The most dominant subcategory among social motives is 'Supporting disadvantaged people', which contains the following individual motivations: provide income or services for the targeted disadvantaged groups; employment of members of the target group, contributing those disadvantaged people to '*feel themselves useful*' (2). This commitment was well expressed by the interviews: '*it is like a sanatorium, so we are moving more slowly*' (4); '*it is more like a therapeutic work than a classical business*' (5); '*one is spiritually good, but technically unsuitable to get a job*' (7). Other important subcategory, which comes from the previous one, is to increase 'Employment well-being' which contains good, pleasant working atmosphere creation. Moreover, the third social motivational subcategory was to 'Expand social goals', because in this way they can help more people and leave bigger impact on society.

The other three social motivational subcategories focused on the community around the enterprise. In more cases it was important motivational to 'Support the local community', which can happen with community building ('*Bring the lost youngsters into the community*' – 4; '*be in one place and help each other*' – 7) or producing local products. Several social entrepreneur mentioned that there is an 'optimal size' which they do not want to exceed. This upper limit can be product specific, they do not want to be '*one on the shelf*' (8) or human specific, '*I don't want a factory, I want to see who I work with*' (5). The last motivational subcategory was sensitization and facilitating acceptance in relation with a disadvantaged target group. This sensitization can happen with '*empathy therapy*' (3), which means that disabled adults perform creative activities together with children.

2) Entrepreneurial motivations: The subcategories in this main motivational category are solely economic, so the economic and entrepreneurial motivations are dominant. The

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individual motivations of this main category gives the 'for-profit leg' of the social enterprise. On the other hand, entrepreneurial motivations alone do not result in starting a social enterprise, only together with other main motivational categories.

The most dominant entrepreneurial motivation subcategory was the enterprise's selffinancing ('We get the funding, but this does not mean success. We have to make revenue...' – 4; 'The real milestone will be when we reach our goal to produce enough profit to finance the salary of our staff.' – 9.). The second subcategory is 'Opportunity seeking', which can be break down into the following individual motivations: innovation; exploitation of an identified market gap ('This was the demand.' – 3); and implementation of a business idea. The last entrepreneurial motivation subcategory aims the 'Expansion and growth' of the enterprise, which can appear in general growth like 'The decision is to go ahead.' (8) and in more specific goals like expanding product range ('The goal is to have a bigger product list and reach a bigger market...' – 7), appear on foreign markets ('I believe we have to think abroad' – 7) or develop business processes.

3) Personal motivations: This main motivational category contained the most diverse individual motivations, but it can be grouped into six subcategories. The first personal motivational subcategory is the 'Self-fulfilment' which can be observed through the demand to create something; search for challenges or simply hold on in business life. Other dominant subcategory was the 'Commitment to help others' which can be the commitment to a social goal, or directly to help others ('*I'm not an angel, I just want to be one. I would like to help everyone.*' – 4). It only appeared in the case of the 8th interviewee, but he talked about it very passionately, that he would like to set an example for others with a successful implementation of a grant financed project, when something would actually be created, and the project was not only '*paperwork*'.

Not surprisingly, one of the personal motivational subcategory aims to 'Increase personal well-being'. It contains individual motivations like: enjoyment of the activity ('*it's important for me to do what I love to do*' - 7); make a meaningful work; be part of a supporting '*value community*' (6) and it feels good to do good ('*It would be demagogic to say that it makes me feel good, but it could still be the case.*' - 7)

Some entrepreneurs started social enterprise because of their previous 'Personal experiences'. This can be negative experience in the for-profit sector ('If I didn't smile, my boss called me to his office and asked what my problem was. I told him what my problem was. He told me to go back and do not even try not to smile.' – 1), or in contrary after 15 years in the for-profit sector one of them wanted to 'give this back to the society' (6). Other very

important motivation, that roots in personal experiences, was the personal involvement in a social problem ('...and a lot of patients among us [she has central nervous system disease], like me, has a university degree or qualification and we cannot find a job' -2), as it was highlighted by Shepherd and Patzelt (2018).

More social entrepreneurs have motivations in connection with their 'Personal livelihood'. Even the most common personal motivation was to ensure personal livelihood (*'its purpose is to make seven families live'* – 1; *'but also a source of livelihood for myself'* – 7), but in the case of three social entrepreneur another interesting aspect of this subcategory appeared, because in their case the personal wealth accumulation was not a goal (*'I am lucky because I do not drive such a big car or live in a huge house like others, but I am happy to do what I love to do.'* – 7; *'when we hired our colleagues, it was a basic condition that this enterprise was not for getting rich. The goal is to make everyone successful, stay motivated and maintain the playhouse.'* – 9).

The sixth and last personal motivational subcategory is to 'Achieve recognition', which contains two individual motivations: achieve general recognition ('*It is success that they recognize the work we do*' - 5; [it is success] '*that you called me and we are talking now*' - 7) and become recognized as an expert.

4) Environmental motivations: Although the sample contained social entrepreneurs, in 6 cases environmental motivations were found in their motivational structures. It means people inserted motivations that targeted sustaining and protecting their natural environment, like environmental entrepreneurs do (Shepherd and Patzelt 2017). This is interesting because it may suggest that sometimes social and environmental entrepreneurs can overlap. Even Shepherd and Patzelt (2017) mentioned social and environmental entrepreneurs together several times under the concept of sustainable entrepreneurship. However, it has to be stated that in these cases it was obvious that social motivations were more dominant than environmental ones.

This main motivational category can be divided into two motivational subcategory. Firstly, the 'Usage of environmentally friendly production'. The most common individual motivation in this subcategory was recycling, which appeared in four social enterprises (1, 2, 4 and 5). As the 1st interviewee said, '*I am pleased because people have realized that we should value our things and not throw them away*'. Two entrepreneurs' (6 and 8) key motivation was to build a short supply chain, as the 6th interviewee said, '*We can locally produce healthy and delicious products from local ingredients*'. Third individual motivation was making environmentally friendly products.

The other subcategory appeared in three cases, which was enhancing environmentally friendly behaviour in their local communities with training and lectures in schools (8); recycling together with kids, and helping Roma women and people living in deep poverty to save and reuse more products (2); and try to steer people towards buying environmentally friendly products (6).

5) Governmental incentives is the last main motivational category, which contains financial incentives like various EU and government funded grants for social entrepreneurs and for social objectives or decrease in taxes; and non-financial incentives like trainings and consulting services. In the interviews, the most dominant incentives were the grants for social entrepreneurs, but some of them used consulting services or training programs as well. One of them even highlighted that *'There are good social enterprise starting programs. Not those that give you money, but those that involve long business trainings, presentationsand consulting ' - 2. All the examined enterprises used or investigated the possibility of using grants for funding in the future. In two cases (3, 7), these grants played key motivational role to start not conventional, but social enterprise.*

The 4th interviewee said that '*if there is no capital, we raise* [the necessary funding for operation] *from grants*'. Interestingly that the 6th interviewee is working on an alternative funding opportunity for social entrepreneurs. They are trying to increase the recognition of social entrepreneurs among venture capitalists to open up this type of funding opportunity for them.

The grants impacted the social enterprises and entrepreneurs' life in several ways. Some of the impacts were trivial in Hungary, because most of these were mandatory to get the grant, such as job creation, equipment procurement, business starting motivation, and employing workforce from preferred groups. However, there were some more interesting positive effects, too. There is an entrepreneur who wants to set an example that we can implement a grant funded project well (8); there are some of them who expand and develop more courageously (9), or experienced higher willingness for new members to join the enterprise (6).

On the other hand, during this research a number of negative impacts have emerged, such as hindering administration (1, 3, 5), difficulty of retaining the number of employees required after a grant funded project (4, 8), danger of becoming lazy (9), or problematic transition from free to paid services after the closure of a grant funded project (3). Another unfortunate situation was indebtedness for own contribution (*'We won the tender, we celebrated it, we drank the champagne, we spent the 10% own contribution with invoices and eventually we did not get the funding. In conclusion, I have to take a bank loan to pay back the 10% spent to the*

family pot and I have to pay the instalments for 5 years. (-1). Renko (2012) also mentioned that social enterprises usually need external support, or they have to collaborate with governmental organizations to stay alive, however, these institutions are usually bureaucratic and insufficient, which creates barriers for social entrepreneurs.

RESULTS - MOTIVATIONAL STRUCTURE FROM THE PERSPECTIVE OF SDT

As it was detailed in the methodology section, the previously presented motivational structure was analyzed from the perspective of SDT (Deci and Ryan 2000, Ryan and Deci 2000) to determine the degree of autonomous nature of social entrepreneurs motivational structure and to get a deeper understanding of their motivations. Most of the individual motivations appeared in several interviews, however in not all cases were the same individual motivation regulated by the same regulatory style. Good example is why they choose recycled materials: they do not have money for better materials (5 – external regulation), benefits for our planet (4 – identified regulation) and recycling is in harmony with their core believes and values (1 and 2 – integrated regulation). This made it necessary to classify each individual motivation instances). These individually classified motivational instances were aggregated and summarized by main categories. As a reminder, controlled motivations are 'External and Introjected Regulations' and autonomous motivations are 'Identified, Integrated and Intrinsic Regulations'.

In the case of 'Social motivations', it is noticeably clear that the dominant regulation is the 'Integrated regulation' and only in few cases appeared controlled, identified and intrinsic regulations. According to these results most of the motivational categories were deeply rooted in the entrepreneurs' personality and core values. It is crucial for them to do something useful for the society. However, the behaviour is internally important for them and it is autonomous, in most cases they do not pursue the activity for the inherent enjoyment, this is why these motives are not intrinsic motives.

In case of 'Entrepreneurial motivations', the only difference was that how deeply the individual motivations were integrated into the entrepreneurs' personality and values. This means that behind the 'Entrepreneurial motivations' there were only two regulatory styles, the 'Identified' and the 'Integrated regulation', with a little bit stronger 'Identified regulation'. Thus, in all cases they recognized the value of the pursued goals and the behaviour was autonomous, but they never did anything for the inherent enjoyment. There were some

individual motivations, such as innovation, growth and expansion, whose classification was not the similar in the case of every entrepreneur. For some of the interviewees, innovation and working on new ideas was a basic motivation and they always worked on new ideas (1, 4, 7, 8), while others recognized the importance of innovation, but was not core of their believes and personality (6, 9).

In case of 'Personal motivations', the regulatory styles were the most diverse. At least one individual motivation has been classified in each regulatory style, except 'Nonregulation' ('Amotivation'). Moreover, only in this main motivational category was the 'Intrinsic regulation' the most dominant regulatory style. According to the results, individual motivations are concentrated into two groups. The smaller group is positioned in the controlled side of extrinsic motivation ('External and Introjected regulation') and the larger group is concentrated in the most autonomous part of the self-determination continuum ('Integrated regulation' and 'Intrinsic motivation'). It is noticeable that only two individual motivations were classified as 'Identified regulation' between the two groups. The most common individual motivation in the 'External regulation' was providing income for personal life (external reward). In the introjected regulation there was previous negative for-profit or non-profit experience classified (pushing emotional factors) or recognition (internal egoinvolving rewarding). In contrary, in the self-determined categories there were: personal involvement, enjoyment of the activity, doing good and doing useful or meaningful work. It was interesting that motivations like helping others or commitment toward a social goal in some cases were intrinsic motivation (entrepreneurs enjoyed them), and in other cases, these were characterized with integrated regulatory style (they pursue them because of the expected positive results).

Among 'Environmental motivations' the situation is similar to the 'Entrepreneurial motivations', because the two main dominant regulatory styles are the 'Identified and the Integrated regulations'. Consequently, the 'Environmental motivations' are autonomous, because the entrepreneurs choose these goals because of the identified positive outcome ('Identified regulation') or because their core values dictate it ('Integrated regulation'). 'External regulatory style' only appeared in one case (6), when the interviewee said, 'We recycle because we only have an opportunity for this, we can buy very few materials.'

In case of 'Governmental incentives', visibly there were two groups among the interviewed social entrepreneurs. Entrepreneurs in the first group had a project idea and the EU or state funded grant was only a tool for the implementation (1, 2, 3, 4 and 8). Their regulatory style was classified as 'Identified regulation', because they perceived the advantages of the grant, their behaviour was more autonomous, and the locus of causality was

somewhat internal. While in the other group, the logic was reverse: after they were informed about the grant for starting a social enterprise, they tried to find out a fitting project or business (5, 7 and 9). In their situation, the dominant motivation factor was the money that they can earn with the grant (external reward) and their motivation were controlled by this, therefore, their motivation was classified as 'External regulation'.

Table 2 – Dominant motives and regulatory styles behind the main motivational categories

| MAIN MOTIVATIONAL CATEGORY | DOMINANT MOTIVES | DOMINANT REGULATORY STYLES | |
|-------------------------------|---------------------------|---|--|
| Social motivations | Autonomous | Integrated with little identified regulation | |
| Entrepreneurial motivations | Autonomous | Identified and integrated regulations | |
| Personal motivations | Autonomous and controlled | Integrated, intrinsic and controlled, introjected regulations | |
| Environmental motivations | Autonomous | Identified and integrated regulations | |
| Governmental incentives | Autonomous or controlled | External or identified regulation | |

Source: Own editing

After analysing the classification from the perspective of each social entrepreneur, we found that most of their motivations are autonomous with integrated regulatory style. However, some of them were more intrinsically motivated (1, 2, 4) than others. It was interesting that in the case of the third interviewee, none of the relevant individual motivations were classified as intrinsic motivation. The most significant concentrations into one regulatory style were observed in the case of the 5th and 8th interviewees, nearly two-thirds of their individual motivations were characterized within the integrated regulatory style.

Overall, we can conclude that most of the motivations of the social entrepreneurs belong to the autonomous part of the self-determination continuum. This result becomes more important if we evoke the results of Kibler et al. (2019) suggesting that the autonomous and internal motivations can decrease the stress caused by the dual nature of social entrepreneurial life, when they are balancing between the social and entrepreneurial goals and motivations.

DISCUSSION OF THE MOTIVATIONAL STRUCTURE

Comparing this motivational structure with previous motivational studies, such as the study of Germak and Robinson (2014), we found that there were similarities and, in some places,

only the categorizations were different (e.g. their 'achievement orientation' mainly equals with 'Entrepreneurial motivations' main category; 'personal fulfilment' are close to this study's subcategory of 'Self-fulfilment'; and 'closeness to social problem' are part of the 'Personal experience' motivational subcategory of current research). Douglas and Prentice (2019) used a three-dimensional motivational structure, which contained social purpose, innovation, and profitmaking. Their first dimension is consistent with our 'Social motivations' main category, while the other two dimensions are part of the 'Entrepreneurial motivation' main category. However, what is more interesting that current research can complement previous researches with new individual motivations and even whole new main motivational categories ('Governmental incentive' and 'Environmental motivations').

The 'Social motivations' can be interpreted in more levels, which means that some of these motivations target only the workers of the enterprise, others target local communities and local problems, and in some cases, they target social-level problems. Similar concepts also appeared in other studies, like the mutual and general interest in the model of Defourny and Nyssens (2017) and separation of providing non-economic gains for individuals or for the society in the book of Shepherd and Patzelt (2017).

Miller et al. (2012) emphasized that compassion is an important pro-social feeling for social entrepreneurs, which appeared in two ways in current research. Firstly, some of the interviewees (1, 4, 7 and 9) are committed to help a somehow disadvantaged group that they do not belong to. While the other group (1, 2, 4, 5, 6 and 8) has longer-term goals from the perspective of the society, because they integrated environmental aspects in their operation, which has only an indirect impact on society. Moreover, from the approach of Yitshaki and Kropp (2018), reader could observe both self- and other-regarding compassion in this research.

CONCLUSION

The main goal of the study was to explore what motivates Hungarian social entrepreneurs and to what extent the social entrepreneurs' motivations are autonomous. The main result is the emerged motivational structure of social entrepreneurs with the 5 main categories and the 19 motivational subcategories, which can be either a basis for broader empirical research in the theme of motivation of social entrepreneurs, or a starting point for quantitative operalization (for example, a future questionnaire). The 5 main categories are: 'Social motivations', 'Entrepreneurial motivations', 'Personal motivations', 'Environmental motivations' and

'Governmental incentives'. According to the results, it may necessitate the coexistence of at least three motivational main categories (entrepreneurial, social, and personal) for someone to start and operate a social enterprise; while the other two main motivational categories (governmental incentives and environmental motivations) seem to be only supportive ones, because they did not appeared in all cases. Finally, we examined to what extent the motivations are autonomous, using self-determination theory as a categorization framework. According to this analysis, the motivation of social entrepreneurs is dominantly autonomous, but in main categories of 'Governmental incentives' and 'Personal motivations' more controlled, externally regulated motivations also appear.

The novelty of the study is twofold. Firstly, research that focuse on social entrepreneurs' motivations is in its infancy globally, but especially in Hungary. Consequently, present research not only confirmed some previous motivational studies, but supplemented them with motivation subcategories and even new motivational main categories (governmental incentives and environmental motivations). Secondly, this wider motivational structure was analysed from the perspective of the SDT to determine the goal motives (why those goals motivate the entrepreneurs?) behind the explored goal contents (what goals motivate entrepreneurs?). This deeper analysis of social entrepreneurs' motivation extended the previous researches not only with new conclusions, but shows example for new directions for future research.

As it was detailed in the contextualization subchapter, social entrepreneurship is a relatively new and not well defined entrepreneurial form in Hungary. Most of the interviewed social entrepreneurs have been leading social enterprises only for a few years, which can cause bias in the data, because their motivations might change when the enterprise becomes well-established and reaches a mature state. Moreover, the research was conducted in Hungary, so the motivational structure can differ in other cultural backgrounds, even within the CEE Region. As a result, further international research may be needed to better understand contextual factors of social entrepreneurial motivations. Also, this study can be a basis of future quantitative research supporting the conduction of further international studies.

During the research potential interesting topics were recognised for future social entrepreneurial researches. 1) The explored motivational structure in this study is more complex than the previous ones and it can be adapted to conventional, business oriented entrepreneurs too. This way there is a possibility to make more finely detailed comparison between social and conventional entrepreneurs. 2) In this research, some social entrepreneurs were sensitive not only to social, but to environmental problems too. In future researches it

might be useful to include environmental entrepreneurs into the samples, because it can provide further understanding about the connection between social and environmental entrepreneurs by providing a more general theory in the field of sustainable entrepreneurship. 3) In addition, both interviews with social entrepreneurs and the preliminary discussion with the business consultant suggest that tensions between the two fundamental interests of social enterprises (social and economic) could be an interesting research theme. Moreover, researchers working with social entrepreneurial tensions (like Moss et al. 2011, Smith et al. 2013, Barraket et al. 2016, Jenner 2016), can also build on our results and use the selfdetermination theory to determine the degree of autonomy of social entrepreneurs' motivations, because as Kibler et al. (2019) concluded the autonomous motivations can help decrease these tensions.

Besides the theoretical and research benefits of the study, being aware of the entrepreneurs' motivational structure can be useful for decision-makers to facilitate social enterprise establishments. Moreover, there are also some managerial implications for social entrepreneurs too. Firstly, social entrepreneurs can increase the employees' social and economic commitment in a more focused way by understand others motivations structure Secondly, the conscious internalization of the motivations can decrease the stress within the social entreprise.

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Original scientific paper

CULTIVATING PROSPERITY AND RESILIENCE: A HOLISTIC APPROACH TO SOCIETAL PROGRESS THROUGH MORAL-ETHICAL GROWTH INDICES

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Abstract

This paper addresses the multiple dimensions of societal progress by challenging the conventional emphasis on economic growth as the sole measure of development. Inspired by Joseph E. Stiglitz's insights into the importance of moral-ethical growth, we introduce novel indices - the Ethics Perception Index (ETPI) and the Regional Ethics Perception Index (RETPI). These indices quantitatively measure moral-ethical growth at national, regional and local levels, filling a critical gap in existing methodologies. Importantly, we emphasise the resilience inherent in moral and ethical growth, demonstrating its capacity to recover and adapt in the face of challenges. Our systematic approach incorporates indicators related to justice, equity, environmental stewardship and general ethical behaviour, providing a comprehensive framework for assessing societal progress beyond traditional economic metrics. In examining the ethical consequences of economic growth, we emphasise the importance of values such as justice and equity in promoting inclusive development. While acknowledging the limitations of our research, we envision future applications of our indices to guide policy and research efforts aimed at promoting equitable and sustainable moral-ethical growth. This work contributes to a nuanced understanding of societal progress and highlights the need for holistic policies that ensure that the benefits of progress are shared by all citizens.

Keywords: Ethics Perception Index, ETPI, Regional Ethics Measurement, Ethics Trends, Google Search Trends in Ethics, Ethics Proxy Variables, Global Ethics Assessment, Comparative Ethics Analysis, Human Development and Ethics, Environmental Ethics, Information Ethics, Economic Freedom and Ethics, Corruption Perception Index and Ethics, Ethics in Education, Ethics and Human Rights, Ethics of Responsibility, Regional Ethics Index, RETPI, Alternative to GDP in Ethics Measurement, Sustainable Development and Ethics.

INTRODUCTION

At a time when the pursuit of economic growth often dominates discussions of social progress, the need for a nuanced understanding of development has never been more urgent. Joseph E. Stiglitz's (2005) seminal essay, 'The Ethical Economist: Growth May Be Everything, But It's Not the Only Thing,' serves as a compelling catalyst for reevaluating our conventional metrics. The essay aims to delve into the complexities of societal progress, challenging the prevailing notion that economic growth alone can adequately measure a nation's or region's prosperity. Recognising the limitations of traditional approaches, we

introduce the Ethics Perception Index (ETPI) and the Regional Ethics Perception Index (RETPI) to measure moral-ethical growth quantitatively.

Our aim is to fill a critical gap in existing methodologies by providing policymakers and researchers with a comprehensive framework for assessing the moral-ethical dimensions of development. As we navigate through the ethical consequences of economic growth, we emphasise the urgency of incorporating values such as justice, equity, environmental stewardship and general ethical behaviour into our measurement systems. In doing so, we aim to contribute to a more holistic understanding of societal progress and to ensure that the benefits of development are equitably shared among all citizens.

At the same time, economic development occurs first at the local level, then at the regional level, and then at the national and international level. These stages are missing in current policy-making because, to our knowledge, there is no specific tool for measuring economic development simultaneously using core indicators at the national, regional and local levels.

This approach enables informed policy-making, allowing decision-makers to monitor key indicators and make more nuanced decisions, promoting balanced growth with targeted attention to regions that need additional support. In addition, the implementation of this methodology fills knowledge gaps by demonstrating that ethical growth contributes to a resilient foundation for both social and economic development.

Economic development is inherently unpredictable, akin to a random walk, as evidenced by events such as the 2008 Global Financial Crisis (GFC), the COVID-19 recession and other shocks that disrupt established patterns of economic growth. The crucial aspect is not just the growth trajectory but the potential for economic growth and resilience, which derives from the moral-ethical dimensions rather than purely material indicators such as supermarket food supplies or the cost of goods and services within a country, often reflected in output.

In addition, the paper substantiates its basic concepts through empirical validation using global, regional and local data sets.

Structure of the paper

The paper adopts a comprehensive structure, exploring the development and application of the Ethics Perception Index (ETPI) as a ground-breaking quantitative measure of moral and ethical economic potential for recovery and resilience. Early chapters explore the theoretical underpinnings of the ETPI, emphasising its distinction from traditional measures of economic growth. Addressing the gap in current knowledge, the study presents an innovative

methodology for rescaling regional ETPI scores to the global index, providing nuanced insights into the moral-ethical landscape.

Subsequent sections detail the seven components of the ETPI, carefully navigating the challenge of integrating negative scale indexes. In particular, the paper introduces a rescaling approach for these components, ensuring a unified positive scale for comprehensive analysis. To illustrate the practical application of the ETPI, the research presents global and regional perspectives, focusing on countries such as Russia and the Czech Republic.

The study concludes by highlighting the relevance of the ETPI in assessing socioeconomic development, emphasising its ability to inform policy-making by identifying regions with different levels of resilience and recovery potential in the face of crises.

THEORETICAL BACKGROUND

Broadening Perspectives: Stiglitz's Critique and Our Novel Indices for Holistic Measurement of Moral-Ethical Growth

Joseph E. Stiglitz's essay 'The Ethical Economist: Growth May Be Everything, But It's Not the Only Thing' (2005) provides valuable insights into why moral-ethical growth is crucial for societal development. Stiglitz challenges the traditional emphasis on economic growth as the sole indicator of progress, arguing that it often fails to address broader societal concerns. The paper argues that while growth brings economic benefits, it does not automatically guarantee moral and ethical progress, environmental sustainability or social justice.

Stiglitz highlights the moral consequences of economic growth, emphasising that societal well-being involves more than financial prosperity (Stiglitz, 2005). He discusses the ethical dimensions of resource allocation, poverty alleviation and environmental impact. The paper suggests that focusing solely on economic indicators can lead to inequalities, leaving some segments of the population vulnerable to problems such as inadequate health care and education.

In contrast, our paper introduces novel indices, namely the Ethics Perception Index (ETPI) and the Regional Ethics Perception Index (RETPI), designed to quantitatively measure moralethical growth at both national and regional levels. These indices provide a systematic approach to assessing the moral-ethical dimensions of economic development, filling a gap in existing methodologies. By incorporating indicators related to justice, equity, environmental stewardship and general ethical behaviour, our indices offer a comprehensive framework for assessing societal progress beyond conventional economic metrics. In doing so, our work provides a valuable tool for policymakers and researchers seeking to holistically measure and promote moral-ethical growth, ensuring that the benefits of societal progress are equitably shared among all citizens.

The Foundations of Economic Measurement: From Kuznets to Modern Databases and Institutional Influence

The need for practical application, predictive power and quantitative estimation of economic factors has led researchers to develop applied indicators (Kuznets, 1934; Kuznets, 1941). Simon Kuznets is widely recognised as the founder of GDP (Daley et al., 1999), GNP (Neil & US Bureau of Economic Analysis, 2020) and related concepts. The modern databases (Feenstra et al., 2021; International Monetary Fund, 2022; World Bank, 2022b) contain the main components of the GDP, eleven similar indicators, and proxy variables that can estimate the national output. This underlines the importance of having robust quantitative measures to assess both economic success and failure.

Although GDP is widely used as a key economic measure, it is not without its critics. In particular, different GDP datasets can provide different levels, trends and even indications of economic growth, adding a layer of complexity. Despite these concerns, GDP remains crucial as a primary source of information, providing insights into a country's economic size and performance. However, the following sections explore the limitations and drawbacks of relying solely on GDP to understand economic dynamics.

REASSESSING GDP: UNRAVELLING BIASES, COMPLEXITIES, AND THE SEARCH FOR A HOLISTIC MEASURE OF WELL-BEING

Analytical Dilemma: Interpreting GDP as Revenue or Cost and the Implications for Comprehensive Economic Analysis

The first line of criticism relates to the core nature of GDP, including its per capita representation and eleven comparable indicators - all collectively referred to as GDP for simplicity in this study. GDP is something like the revenue of a country (Stiglitz, 2005) or costs (Daly et al., 2007; Mishan, 1967; Shell & Mishan, 1975) of all market and economic activities in a specific country. Economic analysts may face one of two scenarios, as illustrated in Figure 1.




Source: Own processing

Drawing parallels between GDP and revenue is more productive in terms of analytical potential. However, the lack of parameters for a comprehensive comparison is a challenge. For example, considering the book value of all components within a country, including land, capital, labour, human capital, natural resources, nature, monetary funds, investment, property rights, currencies and taxes, is crucial for a thorough analysis from an accounting perspective (Brealey et al., 2020; Damodaran, 2014; Tirole, 2005). Current macroeconomic indicators cover only a fraction of these components. Analysts need a holistic set of indicators to make an accurate and unbiased analysis. Trying to assess liabilities without knowing the total "assets" of a country is challenging. Alternatively, comparing revenues and costs, as suggested by Prof. J. Stiglitz, raises questions about the sacrifices a country makes to generate GDP. In both scenarios (GDP is revenue or costs), the lack of clarity about the nature of GDP hampers the efficiency of precise or accounting-type analyses for regional and national economies, forcing researchers to rely on proxy models because of the inherent ambiguity.

The Dynamics of Time Series Analysis: Evaluating Analytical and Forecasting Powers of GDP (PC) and Exploring Growth Patterns

The essence of time series analysis lies in its analytical and forecasting capabilities, which revolve primarily around changes in the primary indicator. Given the common advantages and shortcomings of the related variables, this study refers to them collectively as GDP (PC). The proposal to move away from the primary GDP indicator to alternatives such as GNP and GNI is seen as having similar advantages, disadvantages and systematic problems. The value of GDP and analogous indicators has long been debated in the field of time series analysis, with

a historical focus on the growth threshold. Scholars such as Daniel & Ehrlich (1990) and Gilland et al. (1990) have debated the implications of overlooking this threshold, suggesting that it can turn growth from a positive to a negative factor for the economy. This complex pattern is further illustrated in the following diagram (Figure 2).



Figure 2 Analytical Value of GDP from a Time Series Perspective

If Professor Stiglitz's opponents are correct, as suggested by Daly et al. (2007), Mishan (1967) and Shell & Mishan (1975), then GDP represents the cost of all market and economic activity within a given country or territory. Consequently, an increase in GDP (and similar indicators) would imply an increase in expenditure. To illustrate, consider a simplified economy similar to a pizza house, where different pizza houses have indicators reflecting the growth of their costs - such as dough, various ingredients, baker's labour, electricity, water consumption and similar elements. If pizzeria "A" experiences 7% cost growth, while pizzeria "B" experiences only 2%, analysts can only draw limited conclusions based on these cost components alone without additional detailed information. As the scale of the example expands to that of a region or nation, the inherent bias of cost-based analysis becomes more pronounced.

On the other hand, if Professor Stiglitz is correct in his assertion that GDP is revenue, analysts can compare different regions and countries on the basis of revenue growth. However, as the only composite component, GDP lacks valuable comparables - such as changes in the total value of all assets within a given territorial unit. These assets include property rights, investments, money and currencies, taxes and refunds, inventories and more. To illustrate, consider a simplified economy resembling a pizza house, where the owners of different pizza houses have indicators of sales growth. If analysts do not have precise information beyond these revenue indicators, the efficiency of comparing this revenue growth

Source: Own processing

becomes a challenge. Scaling up from pizza houses to actual regions and countries only adds to the complexity of such analyses.

The Complex Dynamics of GDP Components: Examining the Inner Components and Their Implications for Economic Evaluation

GDP doesn't emerge in a vacuum; it consists of internal components that have been evaluated by various scholars (Encarnacion, 1964; Haregewoin, 2005; He, 2015; Liu et al., 2015). However, the quality of these components can be uneven, introducing significant bias into the overall measure (Sugden & Sen, 1986; Usher & Sen, 1987; Visser & Sen, 2013).

Suppose that a simplified economy produces a range of commodities labelled "A", while a neighbouring economy produces a range of commodities labelled "B". The further simplification can even call these commodities "potato" (it could be only one commodity for illustration). Figure 3 shows the basic relationships in this scenario.

Figure 3 Analytical Value of GDP from the Perspective of an Internal Structure



Source: Own processing

The above scheme shows that GDP "A" is significantly higher than GDP "B" because it produces commodities at higher prices, probably for rivalry consumption. On the other hand, a simplified model supposes that GDP "D" is higher than GDP "E", just because the sort of conditional commodity ("potato") is higher in country "D", even if the quantity would be the same.

In other words, the famous example of producing a stuffed shark (as an art object) costing 12 million dollars (Thompson, 2012) [circa 14.6 million 2022 dollars] would create the same GDP if India, for example, sold roughly 21 320 755 kilograms of rice, or China sold 13 799 937 kilograms. The rice prices are fair on March 24, 2022 (NUMBEO, 2022) compared to the 2022-adjusted price of the produced and sold stuffed shark.

Even more simplified, if India and China produced (or sold in a different method for GDP calculation) 1 kilogram of rice, China would gain 53.6% GDP more for each kilogram. Rice is

a homogenous product. Hence, does this analogy say that the productive capacity of India or China in terms of rice is greater?

Thus, the inner components of GDP can distort the picture of production. In other words, the higher the prices, the higher the GDP. Alternatively, put another way, rival consumer countries (for example, with a population segment eating more caviar, wearing more expensive jewellery, and riding more high-end cars1) produce more GDP than those who consume commodities primarily by necessity. In addition, each such luxury commodity (like the \$12 million stuffed shark) generates significantly more output than units of non-rivalry items.

Therefore, the "formal" levels of GDP can rise while the real welfare of people may fall (Blanchflower & Oswald, 2004). People are more irrational in their consumption; thus, they prefer more rivalry consumption when they can afford it (Day, 1971; Encarnacion, 1964; Georgescu-Roegen, 1954; Tversky, 1972). There is even research estimating the threshold of \$15 000 per capita (Helliwell, 2003). Summarizing these studies, irrational (rivalry) consumption can surpass some level that can then lead to GDP growth with an actual welfare decrease (Max-Neef, 1995).

Notwithstanding, a significant part of GDP belongs to the activities of the wealthiest people (Ferrer-i-Carbonell, 2005; Lyubomirsky et al., 2005; Rojas, 2005). Therefore, regions and countries with rich people will prosper. At the same time, several studies consider that the reverse of this logic is true (R. Inglehart, 2004; R. F. Inglehart et al., 2010; Layard, 2006). They believe that regions with higher well-being are better at creating wealthier people than regions with higher GDP and low well-being, created by irrational (as with rivalry) consumption (and production caused by this consumption).

The Dynamics of GDP per Capita: Unravelling the Complexities of Wealth Imputation and Unequal Distribution

Measuring GDP (or any of other eleven similar indicators) per capita (PC) is trending nowadays. In this context, researchers impute a specific measure of wealth to every citizen within a country.

Further, an average person can never see this imputed piece of the "pie" (GDP). Several earlier studies, including those by Massey (1979), Sen (1976) and Usher & Sen (1987) estimated this phenomenon. Joseph Stiglitz considers that the average GDP is growing while the median GDP is declining (Stiglitz, 2005). In other words, wealthier people receive

¹ Rivalry and similar commodities produce GDP, even in case of imports, because of intermediate firms and delivery chains adding their bonuses to the original price.

increasingly more total shares of the pie, while the poorer 50% of the population have a decline in their claims on GDP. Figure 4 gives a better representation of this trend.



Figure 4 Analytical Value of GDP from the Perspective of an Uneven Distribution

Source: Own processing

The scheme in Figure 4 shows a situation when the well-being of the poorest half of the population is significantly higher in a country with almost 1/3 lower total GDP level.

In other words, the more affluent population group create a significant part of consumption and raise GDP. On the other hand, companies that produce commodities for people who are more prosperous generate more output.

At the same time, wealthier people can relocate in just several hours. They usually are "people of the whole world", living in any locations around the globe that they desire.

Notwithstanding, a giant corporation can quickly transfer its offices abroad, and the incentives to maximise profits by minimising taxes are higher for larger companies.

Therefore, both these sources of GDP [prosperous people and big corporations] are unstable, and they lead to fluctuations in the indicator.

The Impact of Informal Economy: Assessing its Importance, Methodological Variations, and Potential for Manipulation in GDP Estimates

A Shadow economy can create a significant portion of the actual GDP (Ayakpat et al., 2014; Mbiriri, 2010; Mughal & Schneider, 2020). This portion is subject to changes over time (Bos, 2006) and methodology. For example, Somalia can consider piracy as an essential part of its GDP, so that without it the country will become significantly poorer (Jablonski & Oliver, 2017). The same authors estimated the opium poppy as being around 1/3 of Afghanistan's GDP in 2007 [opium poppy also motivated an economic boom in Burma, according to the same authors (Jablonski & Oliver, 2017, p. 3)]. Most countries would never estimate such elements as parts of their GDP and similar indicators, thus methodological differences are created.

Suppose that a situation where country "A" produces opium poppy and exports it to country "B" in order to reprocess it to produce heroin (Buxton, 2006). Let both countries count it in their GDP. Let it all be exported to some other country "C" where illegal drugs are part of the shadow economy. In this case, methodologies will be very different. Such differences in methods overestimate countries "A" and "B", and underestimate country "C" (where there will be intermediaries adding their costs).

The scheme in Figure 5 gives a better representation of similar situations.



Figure 5 Analytical Value of GDP from the Perspective of a Shadow Economy

The other side effect of informal economy estimations is the space for manipulating the data. Suppose that a situation where country "A" has lower GDP than it wants. It can raise GDP just by, for example, legalising drugs or prostitution and start to count it in its GDP. It will also cause an additional GDP growth, starting from the year in which it will change its methodology. Nevertheless, the problem here is that there could be no actual changes (just a change in methods is sufficient).

The Illusion of Wealth: Exposing the Impact of Natural Resource Depletion on GDP and the Call for Sustainable Growth

Some resource economies can look wealthier [in terms of GDP] today than they are in reality, due to natural resources depletion (G. Atkinson et al., 1997). At the same time, stable GDP growth should orient towards long- rather than short-term prosperity [by depleting the natural resources] (Hicks, 1959; Nordhaus, 2013). The scheme in Figure 6 clearly displays this pattern.

Source: Own processing

Figure 6 Analytical Value of GDP from the Perspective of Depletion of Natural Resources

| Country A | GDP form Restorable Goods | | GDP from NRD | | Short-Term Prospectives: GDP (A) > GDP (B) | | | |
|-----------|---------------------------|----|--------------|----|--|--|--|--|
| | | | | | | | | |
| Country B | GDP form Restorable Good | ls | GDP from NRD | | Long-Term Prospectives: GDP (B) > GDP (A) | | | |
| | 0 | | | GD | DP Value | | | |

Key: natural resource depletion (NRD). Source: Own processing

The diagram above illustrates the complex relationship between the Natural Resource Depletion (NRD) component and GDP, and its possible comes from the nature of accounting principles. Non-man-made resources, such as forests, oil, natural gas, gold ore and unprocessed diamonds, lack effective methods of calculation, leading governments to include them in GDP assessments. The lack of alternative parameters makes it difficult to conduct a comprehensive analysis of a particular economy based solely on GDP. It's important to note that while market mechanisms can estimate the current value of these resources, which can ultimately reduce a country's wealth and pose challenges for future generations. This raises questions about how to properly account for such depletion and its implications for sustainable economic practices.

Challenges in GDP Measurement: Data Source Selection, Methodological Differences, and the Search for Accurate Growth Rate Estimates

Choosing the right database is another aspect that affects the accuracy of GDP (and 11 similar indicators) measurements. The three main data sources are PWT (Feenstra et al., 2015, 2021; Zeileis, 2017), WB (World Bank, 2022b), and IMF (International Monetary Fund, 2022).

In order to assess bias in datasets, it is essential to consider factors such as measurement scales, similar to measuring child growth in different units (e.g., centimetres or inches). In this study, growth parameters are used to mitigate bias by ensuring that the primary method of measurement does not disproportionately affect the rate of growth (Shemetev & Pelucha, 2022). Using this analogy, measuring children's growth in centimetres or inches may yield different levels but the same growth rate if the measurement procedures are accurate. Figure 7 extends this logic to illustrate the impact on GDP and similar parameters.





Source: Own processing

In other words, regardless of the methods used to estimate levels, different approaches should give the same growth rate. This consistency ideally results in a perfect fit line on a 2D observation plot, as more efficiently illustrated in Figure 8.

Figure 8 The Perfect Line Pattern of the Growth Rate Estimated by Different Levels



Source: Own processing

Figure 8 represents a pattern in situations of two different measurement approaches (scales) with correct estimation.

Moreover, this research implements the real growth rate with which to measure the correctness of indicators. The nominal GDP is insufficient to verify the differences between countries even, after controlling the comparable international dollars at a fixed rate for a specific date. Real GDP provides the necessary data adjustments for the comparability of results.

At the same time, in most cases, GDP provides a pattern that is closer to a "cloud" than to a perfect fit line. Figures 9, 10, and 11 represent this pattern for the world (left panel) and EU countries (right panel).



Figure 9 The Real GDP Growth for the EU and all Countries in WB and IMF Datasets

Source: Own processing

Figure 9 shows that even the most developed regions (like the EU) have many cases of different estimations within the respected datasets (IMF [International Monetary Fund] and WB [World Bank]). Implementing the most popular research database (PWT [Penn World Table]) worsens the situation. Figure 10 represents this pattern better.



Figure 10 The Real GDP Growth for the EU and All Countries in PWT and IMF Datasets

Source: Own processing

Both patterns in Figure 10 have a regression fit-line significantly driven by distant outliers. The world pattern (left panel) looks more like a cloud than a perfect-fit line. It is not similar to Figure 8 (design for exact measurements with different scales). The EU pattern (right panel) looks significantly better (but it is still far from perfect).

Nevertheless, the cloud-like pattern is still strong. Figure 11 compares the PWT and WB databases.



Figure 11 The Real GDP Growth for the EU and All Countries in PWT and WB Datasets

Moreover, in Figure 11 the global pattern (left panel) can have a negligible correlation between the PWT and WB datasets, because distant outliers are the main drivers for the

Source: Own processing

positive slope of the zero-intercept regression line. It means that both methods for estimating the same parameter have too little in common. The EU pattern (right panel) still represents a significant cloud-like pattern.

Comparing the result to the original example with the measurement of children's growth, the pattern with GDP looks like three different doctors would measure the same children [at the same time] and receive very different growth percentages. In addition, in around a quarter of all cases, they would receive different answers to whether children grew taller or became "shorter" (when one doctor would declare positive growth, while the other would declare negative). Such a pattern derives from the situation with the GDP measurement, when (in roughly a quarter of cases) experts are not sure if the same country grew or declined, in terms of the economy). It is a significant shortcoming of the classical approach. Figure 12 represents this situation in terms of data.

Figure 12 The Highest Annual Difference in Real GDP Growth in EU Countries (Without and With Specific Overseas Territories) by WB, IMF, and PWT Datasets, 1980-2019, Percentage



Such a classical approach measures the macroeconomic well-being of countries. At the same time, GDP [PC] and eleven similar indicators provide proxy variables for calibration models for estimating regional development (Huggins et al., 2014; Pietrzykowski, 2020; Potluka, 2010).

Thus, researchers would have to trust a dataset without any opportunity to check whether or not it represents the correct outcomes.

METHODOLOGY

Comprehensive Measures of Ethical Progress: Introducing the Ethics Perception Index (ETPI)

This section provides additional perspectives on the selection of indicators for the Ethics Perception Index (ETPI). These views serve as a complementary discussion to our earlier publication on this topic (Shemetev, 2022).

The formulation of a quantitative algorithm for evaluating moral-ethical progress is of exceptional importance. The tools available in this context are limited and lack universal applicability, often focusing on measuring either economic progress or specific ethical facets, thus creating a significant gap in the scientific discourse. This research delves into the exploratory realms of the social sciences, recognising in particular the lack of well-established theories in the area of measuring moral-ethical growth. Using methods similar to exploratory social science (Pick & Azari, 2011; Pick & Sarkar, 2016; Stebbins, 2012), our strategy is to draw on antecedent literature to form a coherent empirical model through deliberate inference (Pick & Azari, 2011; Pick & Sarkar, 2016). The aim is to identify relevant factors and associations from the existing literature and integrate them into a comprehensive metric. We then seek to implement this theoretical framework through the formulation of an assessment index, recognising its central role as a valuable tool for measuring ethics in regions, municipalities and local communities, even in the absence of standardised data. This twopronged methodology, involving the creation of a metric and an evaluative proxy index at regional and local levels, not only addresses current challenges, but also enriches the understanding of the complex interplay between communities and ethics.

Information ethics is an important branch of ethics that encompasses principles related to data, information, law, social science, publication and peer review, intellectual property, computers, the internet, privacy, security and surveillance ethics (Hauptman, 2019). Notably, there is a lack of direct tools to measure information ethics (Hauptman, 2019).

However, its influence is pervasive in societal educational processes, from early childhood education (as illustrated in a case study by Vericat Rocha & Ruitenberg (2019), where information ethics improved children's cognitive abilities after psychological trauma) to secondary school (as illustrated in the case study by Gu & Lai (2019), which shows improved education in English classes in Hong Kong due to improved information ethics; Nordkvelle & Olson (2005), which emphasises how moral values shape school education and contribute to a proper educational process) to higher education. The absence of information ethics at the

university level makes it possible to obtain a diploma without attending classes (Diplom.ORG, 2024; KazanFirst News Agency, 2022; Ogonek Journal & 360 Television, 2024), which is detrimental to the overall quality of education (Biggs & Tang, 2011).

By tracking trends in educational ethics, we can effectively assess developments in information ethics. An important tool for measuring trends in educational attainment is the Education Index (United Nations Development Programme, 2022). In our study, we include this index as a component of the broader ethics index. We acknowledge that as more advanced tools emerge, they may replace this component of the ethics index. This potential improvement in the accurate measurement of information ethics represents a prospective direction for the future development of this research.

While education plays a crucial role in social development, it doesn't cover the entire spectrum of information ethics (Hauptman, 2019). The United Nations, for example, considers education to be a key determinant of human capital (United Nations Development Programme, 2023). This importance is reflected in the Human Development Index (HDI), a proxy for the quality of human capital and the second component of the Ethics Perception Index (ETPI). The HDI includes life expectancy and GDP PPP (United Nations Development Programme, 2023), although GDP has limitations (see the background section of this paper). Our index is adaptable, making it easy to incorporate improved components that may emerge in the future.

Information ethics is only one dimension of ethics, which is closely related to human capital ethics, corruption and economics (Binder & Robeyns, 2019; Bryant & Javalgi, 2016). Nobel laureate Amartya Sen emphasises the inseparability of ethics and free economics, arguing that ethical considerations are crucial for economic development (Sen, 1991). Within the Ethics Perception Index (ETPI), economic freedom is represented by the Index of Economic Freedom (EFI) (The Heritage Foundation, 2022), which serves as a proxy for the actual level of economic freedom. An alternative index, the Index of Economic Freedom (IEF) (The Heritage Foundation, 2022), may be considered as a proxy, depending on the availability of recent and relevant data.

Furthermore, ethics is intertwined with corruption, as human capital, economics and ethics are inherently linked to corruption (Binder & Robeyns, 2019; Bryant & Javalgi, 2016; Dhami & Al-Nowaihi, 2019; Haeffele & Storr, 2019; White, 2019). This integration is reflected in the ETPI through the inclusion of the Corruption Perception Index (CPI) (Transparency International, 2022) as the fourth component, which serves as a proxy variable to measure the level of corruption in society. While these proxy variables (CPI and EFI) may have

shortcomings, our index is adaptable and allows for their replacement by more advanced tools as they become available.

At the same time, individuals in contemporary society operate within a framework of legal constraints. Legal mechanisms can sometimes act as barriers to ethical behaviour, as illustrated by Hodges (2015), who describes how different legal contexts directly influence the behaviour of companies and their employees. Further evidence comes from Agyemang et al. (2015), who conduct a statistical analysis of 39 African economies and show that legal frameworks shape the ethical behaviour of local firms, thereby influencing ethics as a whole. The complex relationship between legal constraints, ethics and human existence also extends to international relations, as highlighted by Boucher (2009). Assessing the level of human rights and its impact on ethics within each country separately is challenging. To address this, our study uses a proxy index, specifically one of the Human Rights Indices (Fariss et al., 2020; Our World in Data, 2022), chosen on the basis of data availability.

The final element of the Ethics Perception Index (ETPI) deals with one of the earliest ethical concepts - the ethics of responsibility (Jonas & Morris, 2013). This ethical framework, which dates from the time of Spinoza in the 17th century (Spinoza, 2018), focuses primarily on the interplay between humanity and nature (Jonas & Morris, 2013; Lord, 2010). Although the modern ethics of responsibility goes beyond these concerns, it places considerable emphasis on ecological and environmental issues (Jonas & Morris, 2013).

The ethics of responsibility include sustainable management of natural resources and a conscientious commitment to ecology and the environment, as exemplified by Norwegian practices (Norges Bank Investment Management & Government Pension Fund Global, 2023). These principles form the final components of the Ethics Perception Index (ETPI). The first component is represented by a proxy index that assesses a country's environmental status, known as the Environmental Performance Index (EPI) (Wendling et al., 2020). The EPI consolidates information from 278 indicators, including basic details such as country name, region and code, as well as ecological factors such as water quality, air purity and soil cleanliness. The EPI is divided into three main categories: Climate Change (38%), Environmental Health (20%) and Ecosystem Vitality (42%). In the Climate Change category, factors such as projected greenhouse gas emissions, air quality and climate change mitigation are critical, each with a specific weight. Similarly, Environmental Health assesses components such as air quality, sanitation and drinking water, while Ecosystem Vitality focuses on biodiversity, habitat and ecosystem services. The weighting given to each

component indicates its relative importance in contributing to the overall assessment of a country's environmental performance.

The second component is a proxy index, specifically the parameter of natural resource depletion, expressed as a relative value as a percentage of GDP (United Nations Development Programme, 2021b). Together, these indicators serve as the final components of the ETPI National Ethics Index.

The development of a quantitative algorithm for assessing moral-ethical progress is crucial, and this research introduces the Ethics Perception Index (ETPI) as a comprehensive metric that incorporates information ethics, education ethics, economic freedom, corruption perceptions, legal constraints and the ethics of responsibility. Adaptable to future developments, the ETPI addresses current challenges and enriches understanding of the complex relationship between communities and ethics. Information ethics significantly influences societal educational processes, and the ETPI tracks trends in educational ethics and serves as a valuable measurement tool. Furthermore, within the ETPI, information ethics is closely linked to human capital ethics, corruption and economics. Finally, the ethics of responsibility, which emphasises the interplay between humanity and nature, contributes to the final components of the ETPI. The Environmental Performance Index (with the Natural Resource Depletion proxy index) serves as the key indicator, providing a holistic assessment of a country's ethical responsibility and environmental performance.

Methodological Framework and Formulas for ETPI Estimation, Index Rescaling, and Regional-National Linkages

The standard method of calculating the ETPI index involves summing all six positive scale components (where a higher value indicates a better situation in a country) of X from formula (1), adding the rescaled natural resource depletion indicator using formulae (3) and then (4) to ensure a positive scale. The resulting sum of the six plus one (seven components) is then divided by seven, similar to an arithmetic mean. Formula (1) ensures that no positive scale component exceeds 100% for any country, while guaranteeing a 100% estimate for each component for the best performing country in a given period (formula (2) is useful for the indices that are components of the ETPI and can have negative values). Formulas (3) and (4) apply a similar procedure to the negative scale component of natural resource depletion (where a higher value indicates a worse situation in a country). If any component of the ETPI index is substituted in future studies, this study recommends using the same approach to

rescale the positive and negative scale components based on the meaning of the specific substitute component. This straightforward estimation of the ETPI ensures transparency and simplicity, while the development of more complex indicators to measure ethics at the national level could be a promising avenue for future research in this area.

However, this study refrains from assigning different weights to the components of the ETPI index, making modifications or developing an inequality-adjusted ETPI index. Such adjustments, similar to those made to the Human Development Index (HDI) by indices such as the IHDI (Alkire & Foster, 2010; Foster et al., 2005; Kovacevic, 2010) or similar inequality adjustments to indices based on the methods proposed by Atkinson (1970), are beyond the scope of this research. These aspects could be explored in future research efforts in this area.

The ETPI index has seven components. Six components have a positive scale. The higher the original index value, the better the situation is.

Such positive-scale components are:

- ✓ The Corruption Perception Index (Transparency International, 2022);
- ✓ The Economic Freedom Index (Fraser Institute, 2022) [a more frequent substitute is IEF (The Heritage Foundation, 2022)];
- ✓ The Education Index (United Nations Development Programme, 2021a, 2022);
- ✓ The Human Development Index (UNDP, 2020)²;
- ✓ The Human Rights Indexes (Fariss et al., 2020; Our World in Data, 2022);
- ✓ The Environmental Performance Index (Conrad & Cassar, 2019; Wendling et al., 2020).

Let X be one of these six indices, then the overall equation is:

$$X_{i,t}^{RG} = \frac{100\% * X_{i,t}^{LD}}{\max(X_{t}^{LD})}$$
(1)

Notes: X – a positive scale component (CPI, EFI, EI, HDI, HRI, EPI); LD – means to the last date known by t; t – means a specific time for evaluating the index (for example, the year 2021); i – means specific country [or region]; 100%3 means the necessity to reproduce the results in comparable percentages for all indicators (if some value of 0.9 is 90% [not 0.9%],

² These data are available only up to March 30, 2022 [i.e., the date of the final check for the data updates for this paper].

³ The actual output of indices might be different. For example, the economic freedom index has a scale of 6.42, meaning 6.42%, while HDI and Education Index have scales of 0.122, representing 12.2%. In our example, researchers should either divide by 100 economic freedom index (and similar indices) or raise it to 100 HDI, education index, and similar indexes before the analysis. All components of the ETPI index should have a comparable scale. The rising number of substitute indices for the parts of the ETPI demand researchers to be careful in selecting the scales.

then all indices should have a similar scale before the analysis); Max means the maximum value for a specific period t [for the last date (LD) known].

However, it is essential to note that component t becomes crucial in estimating the moralethical recovery and resilience potential. The primary ETPI index shows the ethics condition by the last date known (LD), i.e., the analysis date.

At the same time, resilience and recovery potentials are dynamic (not static) components. Therefore, t becomes a significant parameter.

In addition, this study explains the pattern using the human rights index [HRI] (Fariss et al., 2020; Our World in Data, 2022), and those authors (in both citations) rescaled the 50% value of this index with zero, meaning that some countries can receive negative values of this index. Such a shift in scales does not prevent applying the usual formula (1), because negative values just decrease the nominator of the final index. At the same time, this shift can provide only small discrimination in later aggregating of the ETPI index (which does not change the overall results significantly for ordinal measurements [not cardinal4]).

However, the application of the ETPI for estimating the recovery potential and resilience requires a precise estimate of the ETPI index. The proper method for indexes with negative minimum scales is:

$$IHRI_{i,t}^{RG} = \frac{HRI_{i,t}^{LD} - \min(HRI^{*})}{\max(HRI^{*}) - \min(HRI^{*})}$$
(2)

Notes: $IHRI_{i,t}^{RG}$ is the human rights index [or any potential substitute for any component of the ETPI that may have negative values] to apply to the formula (1); $HRI_{i,t}^{LD}$ – is the original human rights index, $max(HRI^*) - min(HRI^*)$ is the theoretical HRI range (originally scaled - 4 to 6; the original minimum and maximum values for each period are preferred for the ETPI), Min means minimum, and max means maximum values.

⁴ This small discrimination does not shift the order significantly (i.e., country number five will remain country number five in the rating), but it changes the cardinal result. Compare (80+20)/2=50 with (80-30)/2=25, and (20+20)/2=20 with (20-30)/2=-5. 50>20; 25>-5 (the order for the ordinal measures is the same), while the values are different.



Figure 13 The Principle of Rescaling the X-Centred Indexes for the ETPI Estimation

Source: Own processing

The former version of the ETPI estimation, with HRI potentially assessed by formula (1), provided penalties in statistical discrimination for the countries with severe violations of human rights (negative values of the human rights score index in the case of the zero-centred scale variant). Formula (2) was applied de facto when creating the preliminary version of the ETPI (these researchers used HRI positive-scaled (Shemetev, 2022)). Annex 2 provides a detailed discussion of the application of formulae (1) and (2) in different scenarios.

At the same time, one component of the ETPI index has a negative scale. The higher the original index value, the worse the situation is. For example, the index of natural resource depletion [in the percentage of the output] (United Nations Development Programme, 2021b; World Bank, 2022a) has a negative scale [NRD is its abbreviation name]. A higher index values mean a worse situation with the natural resources in a particular country, region, or society. Then, the formulas to reprocess this index are next:

$$NRDh_{i,t} = 100\%*(1-NRD(\% \text{ of } GNI)_{i,t})$$
(3)
$$NRDh_{i,t}^{RG} = \frac{100\%*NRDh_{i,t}^{LD}}{\max(NRDh_{t}^{LD})}$$
(4)

means the maximum value for a specific period t [for the last date (LD) known].

It is noteworthy that this study does not recommend mixing the indexes for the potential time-series estimation (e.g. avoid mixing two human rights indices for time series analysis

(see Annex 2)); which can, moreover, create bias in data due to methodological changes in the main indexes of the ETPI. For example, EPI [environmental performance index] (one of the seven components of the ETPI) can have the highest time series bias among all the indices.

The research to reduce this ETPI time-series bias is the direction of the future improvement of the ETPI index. We have obtained the most necessary of data to date. At the same time, no significant time-series bias in the regional/local ETPI (REPTI) index exists due to the same methodology, indicators, and approach. On the contrary, the national-level ETPI contains too many complex variables. That is why some distortion in the national-level final ETPI result can occur.

An additional question on data updates can arise in this case. For example, some indexes (HRI, EI, HRI, NRD, and EFI) have low frequencies in updates. The ME-matrix (missing data evaluation matrix [ME stands for Moral-Ethical]) is a designed approach to deal with this problem.

| Indicator | 2017 2018 2019 2020 2021 | | | | | | | | | | | |
|-----------|--|--|--|--|--|--|--|--|--|--|--|--|
| CPI | LD | | | | | | | | | | | |
| EFI<-IEF | LD | | | | | | | | | | | |
| EI | | | | | | | | | | | | |
| HDI | | | | | | | | | | | | |
| HRI | LD . | | | | | | | | | | | |
| NRD | LD LD | | | | | | | | | | | |
| EPI | LD LD | | | | | | | | | | | |
| | The data are missing (they will appear as soon as they are available; the ETPI values will become updated at | | | | | | | | | | | |
| | that point) | | | | | | | | | | | |
| | The data are valid for this year | | | | | | | | | | | |
| LD | The last available data for the calculation of the index: LD – latest date when data are available | | | | | | | | | | | |

Table 1 The Designed ME-Matrix Principle to Process the Evaluation of the Missing Data

Source: Own processing

Notes: CPI – corruption perception index. EFI – economic freedom index; IEF – index of economic freedom (a more frequent substitute of the EFI); EI – education index; HDI – human development index; HRI – human rights index; NRD –natural resource depletion; EPI – environmental performance index.

Moreover, the updates of the missing values make the ETPI index values add precision. Similar updates with long intervals are standard even, for such popular indicators as GDP (the data will arrive to statistical offices and international agencies within the next five years after the year of GDP; these data update the actual values of GDP and similar indicators).

An additional essential element of the analysis is the regional-national interconnection. This paper offers the concept of the regional ETPI rescaling by the national ETPI. The scheme below represents this concept even better.



Figure 14 The Principle of Rescaling the Regional ETPI to the National Level ETPI

Source: Own processing

RETPI is a per capita internet-revealed interest in ethics that are detectable through search queries and online interest in ethics (Shemetev, 2022, pp. 88–91) [The manual estimation of RETPI is described in the following section]. Thus, it creates an amplitude among all of a country's regions (or municipalities, in the case of estimating the local-level RETPI). This amplitude forms deviations among the original national ETPI index within some amplitude λ . The higher the national ETPI is – the higher the regional amplitude (λ) is (due to the higher potential in terms of ethics). For example, the most ethical region in the least ethically-developed country, can have extremely poor ethics compared to the ethically poorest areas of the countries with the highest ethical standards.

The additional method is the amplitude (λ) normalisation by a constant; we estimate that +/- 10% borders are sufficient primary borders (i.e., it can be any other justified value). This justification follows the expert evaluation of the internet search data and national proxy variables related to ethics. Such an approach creates an ordinal measure of ethics development within all countries' regions with a cardinal quantitative basis (all the components have a solid quantitative background).

The better estimation of λ for each case is a topic of future research in this field, so that λ will receive a more robust quantitative basis. Equation 7 provides the understanding of implementing the first model for the ETPI/RETPI rescaling principle:

$$RETPI_{A_{c,i,t}}^{RG} = ETPI_{c,t}^{Y} * \left\{ 1 + \left(\frac{\left(\frac{RETPI_{c,i,t}^{Y}}{2} - \left(\frac{RANGE_{RETPI}}{2} \right) \right)}{\left(\frac{RANGE_{RETPI}}{\varphi_{RETPI}} \right)} \right) / 100 \right\} = ETPI_{c,t}^{Y} * \left\{ 1 + \left(\frac{\left(\frac{RETPI_{c,i,t}^{Y}}{100} - \left(\frac{RANGE_{RETPI}}{2} \right) \right)}{\left(\frac{RANGE_{RETPI}}{\varphi_{RETPI}} \right)} \right) \right\} \right\};$$

$$RETPI_{c,i,t}^{Y} \in [0;100]; \varphi_{RETPI} \neq 0; RANGE_{RETPI} \neq 0$$

$$(7)$$

Notes: $RETPI_A_{c,i,t}^{RG}$ is the adjusted RETPI to the global ETPI; c is a specific country (or another higher-level territory unit); i is a particular region or municipality; t is a time variable; $RETPI_{c,i,t}^{Y}$ is a RETPI index; Y means annual basis (for example, RETPI index for the year 2021 [not monthly, weekly, or daily RETPI indicator]); ϕ_{RETPI} is the number of cuts depending on λ (for example, $\phi_{RETPI} = 20$ will create the leverage of five for the global ETPI value; the value of $\phi_{RETPI} = 5$ will make the leverage of 20 [20 times decrease in the transmission of the percentages of the original RETPI to the globally-rescaled RETPI]); $RANGE_{RETPI}$ is the maximum range of values of the RETPI index ($RETPI_{c,i,t}^{Y} \in [0;100]$ in the classical index). The value 100 is rescaling the original index to the proper percentage value (but, there is no need in this operation if the original $RETPI \in [0;1]$).

Such an approach, in Equation (7) will diminish the rescaled ETPI for regions with the actual RETPI below half of the maximum value by λ , and increase the value of the λ for the areas with the actual values of RETPI above the mean value.

At the same time, to our knowledge, no better approach exists until now. This study estimates that even such classical indicators as GDP can create significant bias in the research. ETPI can be a new tool for quantitative measurement of the moral and ethical background, resilience, and recovery potential from a socio-economic perspective. ETPI can potentially be a substitute for measuring regional, national, and international growth.

Comprehensive Guide: Manual Estimation of Regional Ethics Trends Using RETPI and Google Search Data

The RETPI index is derived from the ETPI to estimate ethics at regional and local levels, and consists of components such as the CPI, EFI, EPI, NRD, EI, HDI and HRI. While these components can only be estimated at the national level, limiting the ETPI to the national level, a manual method can be used to calculate the RETPI index. The RETPI method assumes that data is obtained via the internet, specifically by tracking Google search trends as a proxy for

ethics-related queries globally (other similar search engines may be used depending on research interests). A unique algorithm in R is designed to collect data from Google searches, providing proxy and latent variables. The algorithm converts the data into a matrix, allowing for time series analysis and visualisation through a variety of plots. Modifications to the R code enrich the possible operations on the data. Here's a step-by-step guide to manually estimating the RETPI:

1) Identify Relevant Search Queries:

For each country, identify keywords that are closely related to ethics. Use specific terms such as 'ethics' or a curated set of potent ethics-related search queries, taking into account language and cultural nuances. Tools such as 'Answer The Public' (NP Digital, 2024) are useful for constructing ethics-related search queries tailored to specific territories; this tool provides insights into how people use different terms within specific countries.

2) Obtain Search Query Statistics:

Use statistical tools such as Google Trends (Google, 2024), WordsStat (Yandex, 2024) or similar tools to gather statistics for the selected search queries. Make sure that these tools provide regional and/or local data for each country.

3) Regional Mapping:

Collect statistics for the selected countries and their regions from the selected sources. Use statistical software to map the names of regions from search engines to actual geographic areas within the countries of interest.

4) Data Analysis:

Use statistical software to estimate and visualise which regions show the most interest in ethics-related topics based on search queries. Select appropriate statistical methods based on research objectives and goals.

5) Ranking of Regions:

Create a ranking of regions or local areas based on their interest in ethics-related search queries. This ranking reflects the relative intensity of interest in ethics issues in different regions.

6) Analyse Trends Over Time:

Explore trends in public interest in ethics by examining how interest changes over time in each community and how it relates to the national picture. Use statistical tools to perform time series analysis.

7) Integration with RETPI and ETPI:

Merge the results of the RETPI with the national index of the ETPI (e.g. using formula 7). This integration provides a comprehensive proxy assessment of the state of ethics in countries, regions and local communities.

This step-by-step guide provides specific methods for researchers or analysts to manually estimate the RETPI. The RETPI serves as a qualitative, ordinal measure that captures trends in the population's interest in ethics and provides a valuable regional proxy for assessing the relative interest in ethics within regions of a country.

Application and Implications: Assessing Regional and National Well-being Through Ethical Growth Analysis

The core limitation to this research is the data availability, but the primary data are sufficient for the sources to estimate the ETPI and RETPI indexes (Shemetev, 2022). In addition, the mentioned research contains the justification of each component of the ETPI and RETPI indexes.

Therefore, the complete indexes create the next model:

$$ME_{resilience} = \frac{\left(\frac{ETPI_{t}^{M} - ETPI_{t-1}^{M}}{ETPI_{t-1}^{M}} - \frac{ETPI_{t}^{R} - ETPI_{t-1}^{R}}{ETPI_{t-1}^{R}}\right)}{\left(\left|\frac{ETPI_{t}^{R} - ETPI_{t-1}^{R}}{ETPI_{t-1}^{R}}\right|\right)$$

$$(8)$$

Notes: t – time; M – municipality [or regional-level territory unit]; R – region at a higher hierarchical level than municipality/region [M] (up to the country level); ETPI – Ethics Perception Index [so that national level estimator is ETPI and regional/municipal level estimator is RETPI] (Shemetev, 2022); $ME_{resilience}$ – moral-ethical [ME stands for Moral-Ethical] regional resilience index.

$$ME_{recovery} = \frac{\left(\frac{ETPI_{t}^{M} - ETPI_{t-1}^{M}}{ETPI_{t-1}^{M}}\right)}{\left(\frac{ETPI_{t}^{R} - ETPI_{t-1}^{R}}{ETPI_{t-1}^{R}}\right)}$$
(9)

Note: As before, except for $ME_{recovery}$ – moral-ethical regional recovery potential index. Therefore, the following four situations are possible for the regions and municipalities:

- ✓ $ME_{resilience} \ge 0; ME_{recovery} \ge 0$ indicates good resilience and high recovery potential.
 - These territories can develop faster and decline slower than the regional/national/international growth rate in prosperous times and times of crisis, respectively

- ✓ $ME_{resilience} < 0; ME_{recovery} < 0$ means poor resilience and low recovery potential.
 - It is a typical pattern for territories that decline in prosperous times.
- ✓ $ME_{resilience} \ge 0; ME_{re cov ery} < 0$ means good resilience and low recovery potential;
 - These territories can grow in regional/national/international crisis times but potentially can have troubles in prosperous times.
- ✓ $ME_{resilience} < 0; ME_{recovery} ≥ 0$ means poor resilience and high recovery potential.
 - These territories are slow in **growth** in prosperous times.
 - These territories rapidly head for recession in times of crisis.

Thus, the essence of the analysis of recovery and resilience is in comparing the inferior with the superior level territories. For example, it can be a comparison of municipalities (inferior level) within a region or nation (superior level), or it can be a comparison of a region with national trends.

Another alternative is the comparison of the country with the international community (other countries in a specific area or the whole world). The additional variant compares municipalities or regions in the international community (for example, to verify how New York City looks within all the global cities).

This paper provides an example of comparing regions within a specific big mediocre country (in terms of the socio-economic development), namely Russia (because it has continually attracted the attention of the whole world within the last decade), and a typical Central European country, namely the Czech Republic (because of its national background, in terms of ethical resilience and recovery potential).

Such a wide variety of potential applications of the ETPI recovery and resilience concepts provides practical tools for a profound analysis of social and economic development within ethical growth.

RESULTS AND DISCUSSION

Analysis of the Ethics Perception Index (ETPI): Global and Regional Perspectives

The ME [ME stands for Moral-Ethical] indexes represented in this study have similar mathematical apparatus to the classical regional recovery model (Giannakis & Bruggeman, 2020; Lagravinese, 2015), which is designed to capture employment trends. The classical index does not capture the moral-ethical side of the economy.

The actual economic level (including employment) can be unstable, while the moral-ethical potential creates a long-term stable basis for recovery and resilience (Stiglitz, 2005, 2016).

On the contrary, the suggested ME model is the only quantitative method to estimate the moral-ethical economic potential of recovery and resilience, to the best of our knowledge.

Figure 15 represents the national-level ETPI index (2021). Annex 1 contains a complete table with values of the index (and ranks of countries).





Source: Own processing

The top-10 countries in terms of ETPI are Luxembourg (#1), Denmark (#2), New Zealand (#3), Iceland (#4), Norway (#5), Switzerland (#6), the Netherlands (#7), Sweden (#8), Finland (#9), and Germany (#10). The Czech Republic has #20 in the rating (with France (#21) and Slovenia (#19) as neighbours), the United States is #25 (while Canada is #12), while Slovakia is #31 in the rating. These (and similar) countries had the best ethical performance situation in 2021.

Some countries are in the middle of the rating. Russia, for example, has #84 in the ETPI rating. The significant ethical problems do not give this indicator for growth (judging by proxy variables within the ETPI concept).

At the same time, regional-national interrelation is an integral part of the rating.

Figure 16 Regional Ethics Perception Index (RETPI) Rescaled to the Global ETPI in Russia [Example Country], 2021⁵



Source: Own processing

The paradox of Figure 16 is that the highest RETPI rating is in the Russian Tuva region, which has a high crime rate (Atkinson, 2017; Chigarskych, 2021; UNPO, 2006). At the same time, it has the highest per-capita interest in morality and ethics (judging by its inhabitants' internet activities and interests). Thus, this region has the highest motivation in knowing more about ethics and having a population that is becoming increasingly more ethical. This pattern has been stable in the Tuva region in the long run since 2017.

Notwithstanding, Russia is a mediocre country in terms of moral and ethical socialeconomic development. The average global value of ethics was roughly 63.1 in the period of 2020-2021 (removing six distant lowest6 outliers [North Korea, Somalia, Libya, Syria, South Sudan, and Yemen] due to data insufficiency). The global average is roughly similar to the average level of ethics in Russia in 2017-2021.

⁵ The pattern for the Chukotka and Nenets regions is beyond the proper RETPI estimation because of the internet unavailability in these regions. The number of internet accesses is minimal (in the per capita estimation), and transmitting information by physical devices (like flashcards) can be a cheaper and more accessible tool for data transmission in these regions.

⁶ Judging by the small amount of data that are available for the ETPI index estimation in these countries.



Figure 17 Regional Ethics Perception Resilience and Recovery Potential in Russia [example country], 2020-2021

Source: Own processing

Figure 17 represents the moral and ethical socio-economic resilience and recovery potential for Russia (example country) in 2021. The negative global trends of the ETPI index, due to such crisis factors such as pandemics and lockdown, made most Russian regions non-resilient (that figure shows that the majority of Russian regions are non-resilient to negative global trends).

The blue regions in Figure 17 can create a slow ethical economic growth in times of prosperity, while quickly losing this progress (in accumulated level of ethics) in the times of shocks and crises. The grey regions develop ethical economies in times of crisis, but can have troubles in periods of prosperity.

Therefore, the blue regions should be the primary policymaking targets for the crisis management measures to deploy in times of shock. In contrast, the gray areas will demand significant attention in prosperous times.



Figure 18 Regional Ethics Perception Index (RETPI) Rescaled to the Global ETPI in the Czech Republic, 2021

Source: Own processing

The Czech Republic has good RETPI values. Year 2021 made the overall interest in ethics significantly higher than the average global per-capita level. Therefore, the RETPI is higher than the ETPI for most regions. This rapid jump in the development of ethics provides a solid basis for stable moral-economic growth in the future, thus granting long-term prosperity for the country. The relatively low economic prosperity indicators prevent the ETPI indicator from increasing significantly.

At the same time, regions push the development of the Czech Republic forward in terms of social-economic growth (which is significantly more stable than pure economic growth measured by GDP (Stiglitz, 2001, 2005, 2016)).

Beyond Economic Growth: Exploring the Role of Moral-Ethical Growth in Regional and National Well-being

The current state of knowledge has to implement economic growth to estimate the level of development of regions and countries. The proxy variable for this indicator is GDP (PC) and eleven other similar indicators (such as GRP (PC), National Income, GNP, and others).

Joseph Stiglitz, for example, argues that such an approach is flawed (Stiglitz, 2005, 2016). He argues that moral-ethical growth is the primary source of national and regional prosperity, rather than economic growth (measured by GDP and similar parameters).

Moreover, moral issues are an essential part of decision-making and policymaking. For example, moral-ethical issues were at the core of the implementation of crucial decisions to overcome the 2008-2011 financial crisis (Shiller, 2008; Shiller & Pozen, 2009).

Another example is a long-lasting moral dispute on manipulations, breaking with rational decision-making on regional and macroeconomic scales (Akerlof & Shiller, 2015; Ariely & Haefeli, 2015). Sellers unethically cheat the population by marketing and similar tools with the message of consuming more, thus, stimulating more GDP (through production and sales). It can lead to formal economic growth with an actual ethical decline.

Similar studies declare that economic agents behave in a "good" way, but only if the chances of being caught and punished are high (Dubner & Levitt, 2006; Levitt & Dubner, 2009). Therefore, purely inherent morality without proper estimation is almost useless.

In conclusion, the literature review provides a solid foundation for our study of moralethical growth. By delving into the work of prominent economists such as Joseph Stiglitz, Amartya Sen and many others, we have identified the limitations of conventional growth indicators and recognised the broader dimensions of societal development. As we navigate through the existing literature, it becomes clear that there is an urgent need for innovative measurement tools to accurately measure moral and ethical growth. This need is the background to our novel indices (Shemetev, 2022), the Ethics Perception Index (ETPI) and the Regional Ethics Perception Index (RETPI). In the following sections we present these indices and explain how they address the identified gaps and contribute to a more comprehensive understanding of moral and ethical growth at both national and regional levels.

CONCLUSION

In conclusion, our study seeks to shed light on the often overlooked dimensions of societal progress by introducing the Ethics Perception Index (ETPI) and the Regional Ethics Perception Index (RETPI). By synthesising the insights of established economists such as Joseph E. Stiglitz, we have highlighted the critical importance of moral-ethical growth for holistic development. The ME indices provide a quantitative framework that goes beyond traditional economic metrics to offer a nuanced understanding of the moral and ethical fabric of a society.

These concepts find their empirical verification in the global and regional data. The applicability of this method to the local data provides an additional benefit to this economics toolbox.

Like all research, however, our study has its limitations. Reliance on quantitative data may not capture the full range of moral and ethical nuances, and cultural differences may pose challenges to universal application of our indices.

Looking forward, future research could explore qualitative methods to complement the quantitative aspects and delve deeper into the intricate tapestry of moral-ethical growth. In addition, refining our indices to account for cultural context and evolving societal norms could enhance their applicability across different regions.

Despite these limitations, our work makes a significant contribution to the burgeoning field of ethical economics. The systematic approach of our indices fills a critical gap in existing methodologies and provides a valuable tool for policymakers and researchers alike. As we continue to refine and expand our understanding of moral-ethical growth, we envision a future where societal progress is measured not only in economic terms, but also in the richness of its ethical fabric, ensuring more equitable and sustainable development for all.

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| AT I ENDIA 1. The Edites I eleption index, $2017-2021$ (by 2022 | AP | PPENI | DIX 1 | . The | Ethics | Perception | Index, 2017 | 7-2021 | (by 2022 |
|---|----|-------|-------|-------|--------|------------|-------------|--------|----------|
|---|----|-------|-------|-------|--------|------------|-------------|--------|----------|

| ISO3 | Country | ETPI 2017 | ETPI 2018 | ETPI 2010 | ETPI 2020 | ETPI 2021 | Rank | Rank | Rank | Rank | Rank |
|------|--|--------------|--------------|--------------|--------------|--------------|------|------|------|------|------|
| AFG | Afghanistan | 45.78 | 45.64 | 44.27 | 45.24 | 44.45 | 159 | 159 | 160 | 158 | 159 |
| AGO | Angola | 49.7 | 47.87 | 48.8 | 49.17 | 49.78 | 154 | 157 | 150 | 147 | 144 |
| ALB | Albania | 70.93 | 70.14 | 68.4 | 68.56 | 68.09 | 54 | 56 | 59 | 59 | 59 |
| ARE | United Arab | 77.1 | 76.52 | 76.84 | 76.49 | 76.23 | 36 | 36 | 33 | 35 | 38 |
| | Emirates | | | | | | | | | | |
| ARG | Argentina | 70.06 | 70.07 | 70.86 | 70.43 | 69.69 | 58 | 57 | 52 | 54 | 53 |
| ARM | Armenia | 69.35 | 68.8 | 69.41 | 70.93 | 71.1 | 61 | 62 | 57 | 51 | 49 |
| AUS | Australia | 87.78 | 87.34 | 88.16 | 88.29 | 87.56 | 14 | 15 | 13 | 13 | 14 |
| AUT | Austria | 86.63 | 86.37 | 87.45 | 87.35 | 87.08 | 17 | 17 | 15 | 15 | 16 |
| AZE | Azerbaijan | 63.94 | 61.76 | 61.19 | 61.76 | 61.85 | 88 | 100 | 96 | 92 | 92 |
| BDI | Burundi | 42.67 | 40.94 | 42.17 | 42.15 | 42.26 | 167 | 169 | 164 | 164 | 164 |
| BEL | Belgium | 87.67 | 87.51 | 87.74 | 88.02 | 87.69 | 15 | 14 | 14 | 14 | 13 |
| BEN | Benin | 57.46 | 56.98 | 56.08 | 55.99 | 56.82 | 125 | 127 | 119 | 119 | 116 |
| BFA | Burkina Faso | 51.95 | 48.08 | 48.37 | 47.86 | 48.13 | 144 | 156 | 151 | 153 | 152 |
| BGD | Bangladesh | 51.49 | 50.74 | 51.53 | 51.61 | 51.6 | 146 | 147 | 139 | 139 | 138 |
| BGR | Bulgaria | 73.5 | 73.14 | 72.72 | 73 | 72.67 | 48 | 49 | 47 | 46 | 46 |
| BHR | Bahrain | 68.38 | 67.59 | 68.69 | 68.59 | 69.13 | 63 | 69 | 58 | 58 | 57 |
| BHS | Bahamas | 73.34 | 73.34 | 72.01 | 71.98 | 72.13 | 49 | 48 | 48 | 48 | 47 |
| BIH | Bosnia and Herzegovina | 66.34 | 66.28 | 67.32 | 67.2 | 67.22 | 77 | 74 | 63 | 63 | 63 |
| BLR | Belarus | 71.11 | 70.58 | 69.62 | 70.47 | 69.35 | 53 | 53 | 56 | 53 | 56 |
| BOL | Bolivia | 63.19 | 61.24 | 59.57 | 59.59 | 59.39 | 92 | 104 | 104 | 106 | 106 |
| BRA | Brazil | 62.68 | 61.09 | 60.35 | 61.06 | 60.98 | 96 | 105 | 99 | 98 | 98 |
| BRB | Barbados | 74.11 | 74.24 | 74 | 73.68 | 74.38 | 45 | 45 | 42 | 43 | 41 |
| BRN | Brunei Darussalam | 75.9 | 73.9 | 72.93 | 73.06 | 63.29 | 38 | 46 | 45 | 45 | 80 |
| BTN | Bhutan | 67.54 | 68.35 | 68.02 | 67.77 | 67.13 | 72 | 64 | 61 | 61 | 64 |
| BWA | Botswana | 72.05 | 71.86 | 71.25 | 70.99 | 69.82 | 51 | 51 | 49 | 50 | 52 |
| CAF | Central African Republic | 45.32 | 45.46 | 47.25 | 47.63 | 46.97 | 161 | 160 | 156 | 154 | 157 |
| CAN | Canada | 89.45 | 89.08 | 89.13 | 89.07 | 88.49 | 13 | 13 | 12 | 12 | 12 |
| CHE | Switzerland | 92.07 | 92.29 | 92.43 | 92.28 | 92.06 | 6 | 5 | 6 | 6 | 6 |
| CHL | Chile | 78.07 | 77.25 | 76.8 | 76.9 | 76.6 | 31 | 33 | 34 | 33 | 34 |
| CHN | China | 61.59 | 60.62 | 59.74 | 60 | 60.28 | 106 | 108 | 103 | 104 | 103 |
| CIV | Cote d'Ivoire | 56.09 | 55.73 | 53.24 | 52.91 | 53.2 | 128 | 129 | 131 | 132 | 134 |
| CMR | Cameroon | 50.61 | 49.68 | 49.49 | 49.64 | 49.9 | 150 | 151 | 144 | 144 | 142 |
| COD | Democratic Republic of the Congo | 45.8 | 44.32 | 46.5 | 46.57 | 47.38 | 158 | 165 | 157 | 157 | 155 |
| COG | Congo | 24.78 | 22.14 | 20.58 | 20.54 | 20.87 | 180 | 180 | 180 | 180 | 180 |
| COL | Colombia | 66.67 | 65.77 | 64.63 | 65.19 | 64.98 | 74 | 79 | 73 | 73 | 73 |
| COM | Comoros | 58.03 | 57.37 | 55.29 | 54.33 | 54.45 | 122 | 122 | 122 | 128 | 125 |
| CPV | Cabo Verde | 67.94 | 68.81 | 66.14 | 66.12 | 66.11 | 70 | 61 | 68 | 70 | 70 |
| CRI | Costa Rica | 76.32 | 76.02 | 74.31 | 74.45 | 74.32 | 37 | 38 | 41 | 41 | 42 |
| ISO3 | Country | ETPI | ETPI 2010 | ETPI 2010 | ETPI | ETPI 2021 | Rank | Rank | Rank | Rank | Rank |
|------|----------------------|-------|----------------|----------------|---------------|----------------------|------|------|------|------|------|
| CUD | Cuba | 2017 | 2018 | 2019 | 2020 | 2021 | 2017 | 2018 | 152 | 152 | 152 |
| | Cuba | 70.22 | 70.22 | 40.20 | 4/.00 | 47.9 | 20 | 130 | 20 | 132 | 20 |
| | Czachia | 19.25 | 79.52 84.12 | 70.03 | 70.00 | 70.4 84.46 | 29 | 20 | 29 | 20 | 20 |
| DEU | Czecilla | 00.86 | 00.74 | 01.22 | 01.22 | 01.04 | 20 | 20 | 20 | 20 | 10 |
| | Diibouti | 50.80 | <i>4</i> 0.74 | 18 22 | 91.23 18.7 | <i>4</i> 0.60 | 152 | 152 | 152 | 150 | 145 |
| | Djibouti | 41.8 | 49.43 | 40.32 | 40.7 | 49.09 | 155 | 155 | 152 | 150 | 145 |
| | Denmark | 92.36 | 92.57 | 03 57 | 03.83 | 03 7 | 5 | 100 | 3 | 109 | 2 |
| | Dominicon | 92.30 | 92.37 64.00 | 93.37 61.45 | <i>9</i> 3.83 | <i>93.1</i> 60.03 | 85 | 4 | 04 | 07 | 2 |
| DOM | Republic | 04.33 | 04.09 | 01.45 | 01.17 | 00.95 | 05 | 04 | 94 | 91 | 99 |
| DZA | Algeria | 61.78 | 60.99 | 59.99 | 60.2 | 60.13 | 104 | 106 | 102 | 102 | 104 |
| ECU | Ecuador | 64.53 | 64.21 | 64.11 | 64.9 | 64.56 | 86 | 82 | 75 | 74 | 74 |
| EGY | Egypt | 58.89 | 58.73 | 56.69 | 56.54 | 56.78 | 117 | 115 | 116 | 118 | 118 |
| ERI | Eritrea | 28.64 | 28.37 | 26.74 | 26.31 | 27.05 | 178 | 177 | 178 | 178 | 178 |
| ESP | Spain | 79.58 | 79.55 | 80.4 | 80.47 | 80.75 | 27 | 27 | 25 | 25 | 24 |
| EST | Estonia | 85.62 | 85.79 | 86.63 | 86.83 | 86.71 | 18 | 19 | 18 | 17 | 17 |
| ETH | Ethiopia | 47.32 | 47.08 | 47.4 | 47.49 | 47.32 | 157 | 158 | 155 | 155 | 156 |
| FIN | Finland | 90.29 | 89.91 | 90.93 | 90.73 | 91.24 | 10 | 11 | 10 | 10 | 9 |
| FJI | Fiji | 63.51 | 63.08 | 60.54 | 60.73 | 69.44 | 90 | 90 | 98 | 100 | 55 |
| FRA | France | 83.13 | 82.9 | 82.77 | 82.99 | 83.23 | 21 | 22 | 21 | 21 | 21 |
| GAB | Gabon | 59.88 | 58.91 | 60.18 | 60.03 | 60.38 | 113 | 114 | 100 | 103 | 102 |
| GBR | United Kingdom | 89.72 | 89.59 | 76.51 | 76.43 | 76.41 | 11 | 12 | 35 | 37 | 37 |
| GEO | Georgia | 75.67 | 75.71 | 73.79 | 73.87 | 73.69 | 40 | 39 | 43 | 42 | 43 |
| GHA | Ghana | 59.77 | 59.32 | 56.89 | 57.45 | 57.38 | 114 | 112 | 115 | 114 | 113 |
| GIN | Guinea | 51.9 | 51.77 | 49.95 | 50.03 | 49.63 | 145 | 142 | 142 | 142 | 147 |
| GMB | Gambia | 53.77 | 55.15 | 54.05 | 54.61 | 54.98 | 136 | 131 | 128 | 126 | 121 |
| GNB | Guinea Bissau | 32.16 | 32.01 | 30.39 | 30.52 | 30.84 | 175 | 175 | 176 | 176 | 176 |
| GNQ | Equatorial Guinea | 28.32 | 27.05 | 24.07 | 24.04 | 24.2 | 179 | 179 | 179 | 179 | 179 |
| GRC | Greece | 75.25 | 75.08 | 76.03 | 76.62 | 76.59 | 42 | 42 | 38 | 34 | 35 |
| GRD | Grenada | 49.07 | 49.02 | 48.89 | 48.79 | 48.79 | 156 | 154 | 148 | 149 | 150 |
| GTM | Guatemala | 60.12 | 59.53 | 56.56 | 56.58 | 56.54 | 112 | 111 | 117 | 117 | 119 |
| GUY | Guyana | 62.59 | 62.67 | 61.62 | 61.61 | 61.45 | 97 | 91 | 93 | 95 | 96 |
| HND | Honduras | 57.32 | 57.18 | 55 | 54.77 | 54.37 | 126 | 125 | 124 | 124 | 127 |
| HRV | Croatia | 75.89 | 75.65 | 75.87 | 75.91 | 76.1 | 39 | 40 | 39 | 39 | 39 |
| HTI | Haiti | 51.39 | 51.66 | 49.91 | 49.82 | 49.87 | 147 | 145 | 143 | 143 | 143 |
| HUN | Hungary | 74.69 | 74.71 | 74.91 | 75.06 | 74.99 | 44 | 43 | 40 | 40 | 40 |
| IDN | Indonesia | 61.92 | 61.92 | 62.02 | 61.68 | 61.76 | 103 | 98 | 90 | 93 | 93 |
| IND | India | 54.77 | 54.4 | 54.49 | 54.46 | 54.43 | 133 | 133 | 127 | 127 | 126 |
| IKL | Ireland | 89.59 | 89.95 | 90.19 | 89.79 | 90.15 | 12 | 10 | 150 | 10 | 110 |
| IKN | Iran | 61.18 | 59.7 | 44.59 | 44.07 | 43.73 | 109 | 110 | 158 | 160 | 160 |
| IRQ | Iraq | 41.88 | 41.41 | 41.91 | 42.03 | 42.36 | 168 | 168 | 166 | 165 | 163 |
| ISL | Iceland | 93.45 | 93.88 | 94.12 | 93.48 | 93.33 | 2 | 1 | 1 | 3 | 4 |
| ISK | Israel | //.69 | 77.63 | //.16 | 77.24 | 70.00 | 34 | 32 | 32 | 32 | 33 |
| IIA | Italy | 77.79 | 78.11 | 78.21 | /8.36 | 78.99 | 32 | 31 | 30 | 30 | 28 |

| ISO3 | Country | ETPI | ETPI 2010 | ETPI | ETPI | ETPI | Rank | Rank | Rank | Rank | Rank |
|------------|--------------------|-------|--------------|-------|-------|-------|------|------|------|------|------|
| ТАМ | Iamaiaa | 2017 | 2018 | 2019 | 2020 | 2021 | 2017 | 2018 | 2019 | 2020 | 2021 |
| | Jamaica | 68.05 | 68 47 | 68.12 | 68.11 | 67.85 | 62 | 62 | 60 | 60 | 60 |
| JUN IDN | Joruan | 85.57 | 85.03 | 86.96 | 87.18 | 87.11 | 10 | 18 | 16 | 16 | 15 |
| JIN KAZ | Kazakhstan | 67.17 | 66.06 | 65 53 | 66 79 | 66.83 | 73 | 78 | 72 | 66 | 65 |
| KEN | Kenya | 53.2 | 52 74 | 52.05 | 52 52 | 52.26 | 138 | 139 | 137 | 136 | 137 |
| KGZ | Kvrovzstan | 62 34 | 62.61 | 61.65 | 61.85 | 61.3 | 99 | 94 | 92 | 90 | 97 |
| KHM | Cambodia | 54 78 | 53.83 | 52.86 | 52.91 | 53.2 | 132 | 134 | 134 | 133 | 135 |
| KOR | Korea, South | 73.78 | 74.32 | 76.11 | 76.33 | 76.55 | 46 | 44 | 37 | 38 | 36 |
| KWT | Kuwait | 68.03 | 67.32 | 53.43 | 54.07 | 54.34 | 69 | 71 | 130 | 129 | 128 |
| LAO | Laos | 40.98 | 40.53 | 40.44 | 40.08 | 39.96 | 170 | 170 | 167 | 167 | 167 |
| LBN | Lebanon | 62.13 | 61.62 | 59.28 | 58.83 | 58.6 | 102 | 101 | 105 | 107 | 109 |
| LBR | Liberia | 52.7 | 52.8 | 49.05 | 48.89 | 49.06 | 140 | 138 | 147 | 148 | 149 |
| LCA | Saint Lucia | 71.39 | 71.18 | 69.8 | 69.78 | 69.63 | 52 | 52 | 55 | 55 | 54 |
| LKA | Sri Lanka | 66.62 | 66.81 | 64.1 | 64.19 | 63.73 | 75 | 72 | 76 | 76 | 79 |
| LSO | Lesotho | 55.56 | 55.54 | 54.93 | 55.24 | 54.57 | 129 | 130 | 125 | 122 | 124 |
| LTU | Lithuania | 82.67 | 82.22 | 81.96 | 82.25 | 82.41 | 22 | 23 | 22 | 22 | 22 |
| LUX | Luxembourg | 92.77 | 92.73 | 93.97 | 93.81 | 93.96 | 3 | 3 | 2 | 2 | 1 |
| LVA | Latvia | 81.67 | 81.51 | 80.82 | 81.12 | 81.47 | 25 | 24 | 24 | 23 | 23 |
| MAR | Morocco | 64.97 | 65.59 | 63.06 | 62.89 | 62.69 | 81 | 80 | 83 | 86 | 87 |
| MDA | Moldova | 64.24 | 63.8 | 63.1 | 63.83 | 64.2 | 87 | 88 | 82 | 77 | 76 |
| MDG | Madagascar | 52.24 | 51.39 | 50.27 | 51.01 | 50.69 | 142 | 146 | 141 | 140 | 140 |
| MDV | Maldives | 61.46 | 60.76 | 58.91 | 61.65 | 60.93 | 108 | 107 | 108 | 94 | 100 |
| MEX | Mexico | 62.59 | 62.1 | 62.16 | 62.64 | 62.52 | 98 | 97 | 89 | 87 | 89 |
| MKD | North Macedonia | 69.91 | 70.22 | 70.04 | 69.72 | 70.19 | 59 | 55 | 53 | 56 | 51 |
| MLI | Mali | 42.95 | 41.54 | 40.03 | 39.96 | 39.76 | 166 | 167 | 168 | 168 | 168 |
| MLT | Malta | 68.11 | 67.66 | 66.61 | 66.49 | 66.73 | 67 | 67 | 65 | 67 | 66 |
| MMR | Myanmar | 50.06 | 50.33 | 47.45 | 47.3 | 47.46 | 152 | 149 | 154 | 156 | 154 |
| MNE | Montenegro | 73.58 | 73.35 | 71.02 | 71.1 | 71.53 | 47 | 47 | 51 | 49 | 48 |
| MNG | Mongolia | 65 | 64.81 | 61.41 | 61.43 | 62.43 | 80 | 81 | 95 | 96 | 90 |
| MOZ | Mozambique | 50.92 | 49.59 | 49.26 | 49.36 | 49.67 | 149 | 152 | 146 | 146 | 146 |
| MRT | Mauritania | 58.31 | 58.09 | 56.54 | 56.77 | 56.81 | 119 | 117 | 118 | 115 | 117 |
| MUS | Mauritius | 38.1 | 37.92 | 36.95 | 37.02 | 37.18 | 174 | 174 | 173 | 173 | 172 |
| MWI | Malawi | 53.92 | 53.71 | 52.49 | 52.5 | 53.31 | 135 | 135 | 135 | 137 | 133 |
| MYS | Malaysia | 70.37 | 69.64 | 69.9 | 69.59 | 69.01 | 57 | 58 | 54 | 57 | 58 |
| NAM | Namibia | 68.37 | 68.09 | 65.8 | 65.89 | 65.8 | 64 | 65 | 70 | 71 | 72 |
| NER | Niger | 45.27 | 44.65 | 44.54 | 44.98 | 45.2 | 163 | 162 | 159 | 159 | 158 |
| NGA | Nigeria | 52.72 | 52.03 | 48.89 | 48.66 | 48.71 | 139 | 141 | 149 | 151 | 151 |
| NIC | Nicaragua | 59.59 | 57.29 | 54.74 | 54.62 | 54.12 | 115 | 124 | 126 | 125 | 129 |
| NLD | Netherlands | 91.18 | 91.22 | 92.24 | 92.12 | 92.04 | 8 | 8 | 7 | 7 | 7 |
| NOR | Norway | 92.59 | 92.26 | 93.14 | 93.04 | 93.17 | 4 | 6 | 5 | 5 | 5 |
| NPL | Nepal | 55.05 | 54.72 | 55.95 | 55.79 | 55.2 | 131 | 132 | 120 | 120 | 120 |
| NZL | New Zealand | 93.61 | 93.27 | 93.49 | 93.44 | 93.36 | 1 | 2 | 4 | 4 | 3 |
| OMN | Oman | 67.7 | 67.62 | 66.38 | 66.9 | 66.6 | 71 | 68 | 66 | 65 | 67 |
| PAK | Pakistan | 50.58 | 50.43 | 50.54 | 50.28 | 49.27 | 151 | 148 | 140 | 141 | 148 |

| ISO3 | Country | ETPI 2017 | ETPI 2018 | ETPI 2019 | ETPI 2020 | ETPI 2021 | Rank 2017 | Rank 2018 | Rank 2019 | Rank 2020 | Rank 2021 |
|------|-----------------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| PAN | Panama | 73.08 | 73 | 71.07 | 70.84 | 70.8 | 50 | 50 | 50 | 52 | 50 |
| PER | Peru | 69.61 | 69.02 | 67.44 | 67.71 | 67.32 | 60 | 60 | 62 | 62 | 61 |
| PHL | Philippines | 61.74 | 61.32 | 58.44 | 58.49 | 58.23 | 105 | 103 | 109 | 109 | 110 |
| PNG | Papua New Guinea | 29.29 | 28.11 | 27.72 | 27.51 | 28.15 | 177 | 178 | 177 | 177 | 177 |
| POL | Poland | 79.52 | 79.05 | 79.02 | 78.79 | 78.85 | 28 | 30 | 28 | 29 | 29 |
| PRT | Portugal | 79.09 | 79.08 | 79.1 | 79.09 | 79.3 | 30 | 29 | 27 | 27 | 27 |
| PRY | Paraguay | 64.57 | 64.15 | 63.43 | 63.57 | 63.8 | 84 | 83 | 79 | 79 | 77 |
| QAT | Qatar | 77.62 | 77.11 | 72.9 | 72.9 | 72.81 | 35 | 35 | 46 | 47 | 45 |
| ROU | Romania | 39.19 | 38.79 | 39.39 | 39.31 | 39.47 | 172 | 173 | 170 | 170 | 170 |
| RUS | Russia | 64.85 | 63.64 | 62.48 | 63.09 | 62.97 | 82 | 89 | 86 | 84 | 85 |
| RWA | Rwanda | 58.23 | 58.63 | 57.65 | 57.68 | 57.06 | 120 | 116 | 113 | 113 | 115 |
| SAU | Saudi Arabia | 68.06 | 66.15 | 65.71 | 65.89 | 66.43 | 68 | 76 | 71 | 72 | 68 |
| SDN | Sudan | 45.67 | 45.23 | 42.7 | 42.24 | 41.92 | 160 | 161 | 162 | 163 | 165 |
| SEN | Senegal | 57.96 | 57.59 | 55.06 | 55.24 | 54.89 | 124 | 121 | 123 | 123 | 122 |
| SGP | Singapore | 87.01 | 86.92 | 86.74 | 86.58 | 86.58 | 16 | 16 | 17 | 18 | 18 |
| SLB | Solomon Islands | 62.83 | 63.93 | 61.15 | 60.8 | 61.51 | 93 | 86 | 97 | 99 | 95 |
| SLE | Sierra Leone | 52.2 | 51.74 | 49.39 | 49.41 | 50.14 | 143 | 144 | 145 | 145 | 141 |
| SLV | El Salvador | 62.17 | 61.5 | 60.14 | 60.37 | 59.91 | 101 | 102 | 101 | 101 | 105 |
| SRB | Serbia | 70.49 | 70.46 | 64.28 | 64.38 | 64.54 | 56 | 54 | 74 | 75 | 75 |
| STP | Sao Tome and Principe | 68.26 | 68.07 | 65.94 | 66.36 | 65.96 | 65 | 66 | 69 | 68 | 71 |
| SUR | Suriname | 62.81 | 62.67 | 64.05 | 63.22 | 62.86 | 94 | 92 | 77 | 82 | 86 |
| SVK | Slovakia | 77.76 | 77.23 | 77.3 | 77.33 | 77.7 | 33 | 34 | 31 | 31 | 31 |
| SVN | Slovenia | 82.6 | 83.36 | 85.28 | 85.54 | 85.09 | 23 | 21 | 19 | 19 | 19 |
| SWE | Sweden | 91.29 | 91.56 | 92.15 | 91.94 | 91.87 | 7 | 7 | 8 | 8 | 8 |
| SWZ | Eswatini | 60.14 | 59.03 | 58.19 | 58.06 | 57.83 | 111 | 113 | 110 | 111 | 112 |
| SYC | Seychelles | 75.46 | 76.32 | 76.14 | 76.48 | 77.41 | 41 | 37 | 36 | 36 | 32 |
| TCD | Chad | 45.28 | 44.35 | 42.41 | 42.59 | 42.43 | 162 | 164 | 163 | 162 | 162 |
| TGO | Togo | 54.24 | 53.15 | 52.1 | 52.65 | 53.32 | 134 | 137 | 136 | 135 | 132 |
| THA | Thailand | 63.32 | 62.63 | 63.24 | 63.35 | 63.19 | 91 | 93 | 80 | 80 | 83 |
| ТЈК | Tajikistan | 57.97 | 58.04 | 57.29 | 56.7 | 57.15 | 123 | 118 | 114 | 116 | 114 |
| TKM | Turkmenistan | 45.09 | 57.7 | 41.93 | 41.59 | 41.71 | 164 | 120 | 165 | 166 | 166 |
| TLS | Timor-Leste | 55.37 | 52.38 | 52.93 | 53.46 | 53.4 | 130 | 140 | 133 | 131 | 131 |
| ТТО | Trinidad and Tobago | 70.58 | 69.23 | 66.88 | 67.01 | 67.26 | 55 | 59 | 64 | 64 | 62 |
| TUN | Tunisia | 65.78 | 66.08 | 63.55 | 63.7 | 63.8 | 79 | 77 | 78 | 78 | 78 |
| TUR | Turkey | 64.69 | 64.05 | 62.39 | 62.45 | 62.03 | 83 | 85 | 87 | 89 | 91 |
| TWN | Taiwan | 44.45 | 44.38 | 43 | 42.85 | 43.53 | 165 | 163 | 161 | 161 | 161 |
| TZA | Tanzania | 56.27 | 55.83 | 53.6 | 53.93 | 54 | 127 | 128 | 129 | 130 | 130 |
| UGA | Uganda | 53.36 | 53.62 | 53.02 | 52.77 | 52.6 | 137 | 136 | 132 | 134 | 136 |
| UKR | Ukraine | 61.48 | 61.77 | 62.35 | 63.19 | 63.21 | 107 | 99 | 88 | 83 | 81 |
| URY | Uruguay | 81.06 | 80.92 | 79.22 | 79.17 | 79.49 | 26 | 25 | 26 | 26 | 26 |
| USA | United States of America | 82.25 | 80.77 | 81 | 80.52 | 80.19 | 24 | 26 | 23 | 24 | 25 |

| ISO3 | Country | ETPI 2017 | ETPI 2018 | ETPI 2019 | ETPI 2020 | ETPI 2021 | Rank 2017 | Rank 2018 | Rank 2019 | Rank 2020 | Rank 2021 |
|------|--|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| UZB | Uzbekistan | 58.22 | 57.11 | 59.2 | 59.94 | 60.41 | 121 | 126 | 106 | 105 | 101 |
| VCT | Saint Vincent and the Grenadines | 75.01 | 75.32 | 73.02 | 73.07 | 72.96 | 43 | 41 | 44 | 44 | 44 |
| VEN | Venezuela | 40.97 | 39.63 | 37.43 | 37.13 | 36.87 | 171 | 171 | 172 | 172 | 173 |
| VNM | Vietnam | 59.35 | 58 | 57.7 | 58.03 | 58.95 | 116 | 119 | 112 | 112 | 107 |
| VUT | Vanuatu | 65.98 | 66.7 | 62.84 | 62.95 | 63.21 | 78 | 73 | 84 | 85 | 82 |
| ZAF | South Africa | 62.76 | 62.61 | 62.57 | 62.56 | 62.68 | 95 | 95 | 85 | 88 | 88 |
| ZMB | Zambia | 58.63 | 57.37 | 55.52 | 55.28 | 54.76 | 118 | 123 | 121 | 121 | 123 |
| ZWE | Zimbabwe | 52.31 | 51.76 | 51.56 | 51.95 | 51.19 | 141 | 143 | 138 | 138 | 139 |

APPENDIX 2. Normalisation and Rescaling Formulas for Index Values: Ensuring Consistency and Comparability in Composite Indices

For example, let the HRI index value for country D be -2 [HRI \in [-4;6]], then (formula 2): [-2-(-4)]/[6-(-4)]=20%; thus, 2 is 20% of the maximum range of 10 (2/10=20%). Another example: let the HRI_E index value for country E be +2 [HRI_Z \in [-4;4]], then, [+2-(-4)]/[6-(-4)]=60%; thus, 6 is 60% of the maximum range of 10 (6/10=60%).

In addition, formula (2) will not "spoil" indexes in zero/positive minimum-value cases. For example, let some index with G value for country A be +2 [G \in [0;10]], then (formula 4): [+2-(0)]/[10-(0)]=20%.

Suppose another example case: the absolute minimum and maximum of the HRI are unknown (e.g., lack of documentation). Then, researchers can still estimate proxy. Suppose the absolute minimum HRI value was -3.5 in country U, and the maximum value was 5.1 for country H. Thus, HRI for country D is: $[-2-(-3.5)]/[5-(-3.5)] \approx 18\%$. The country with the maximum index value will have 100% [this is the necessary scaling for estimating the ETPI]. Researchers can apply formula 2 for rescaling different potential substitute indexes for future modifications in the estimation of ETPI.

There is a small precaution in applying formulas 2 and 1 (together), regarding the maximum values. Suppose the actual minimum and maximum values of some index X never appear in reality. In that case, the new maximum and minimum values for calculating formula 2 should come from the actual (not theoretical) values up to a specific date.

Otherwise, the application of the theoretical maximum value (not actually achievable in the real life estimations) can lead to a slight bias in the estimates of the ETPI (because the purpose of the ETPI estimation process is to receive equally-scaled indexes from the actual data [i.e., not the theoretical data]).

Thus, this modification (HRI* does not become the absolute theoretical range but rather the actual range) will not change anything in the final value of the ETPI [i.e., ETPI is very stable in terms of the original data and instructions for availability and clearance of these data].

Thus, the algorithm described in formula (2) and Figure 13 can rescale indexes in the case of zero or any other X-centring of the original data.

At the same time, ETPI for resilience and recovery potential is better in having all components equally scaled (0 to 100, positively scaled [i.e., the higher the value, the better the situation is]). Other modifications of the estimations are potentially possible for different research purposes where ETPI can play a particular role.

Therefore, formula (2) will not change the values of the positive-scaled indexes starting from 0 as their minimum value. It changes indexes when part of their meanings can have negative values or [in the second case] when the theoretically minimum value of the indexes is above zero.

It is noteworthy that the actual HRI values below -4 never happened historically, while values above 5 are rare (a good example is Iceland in 2019 that has the value of this index of 5.16, while Luxembourg has 5.31 for the same date [total high-score was Luxembourg in 2014 in 5.34]). Fariss et al. (2020) and Our World in Data (2022) apply this index for a time series analysis of relative change.

Thus, formula (2) rescales the HRI to the standard index with positive values: $IHRI_{i,t}^{RG} \in [0;10]$. The approach of formula (2) can rescale any X-centred indexes of any potential substitutes of the components of the ETPI index (with the potential difference being in the choice of the value to add [it was the absolute theoretical minimum value of -4 in the case of HRI]).

Furthermore, the economic freedom index has two types: percentage (0-100) and score (0-10). Suppose that the maximum value of the economic freedom index is 8 of 10 in year Y. In addition, suppose that some country A has a value of 6 in the same year Y. Then, the final index is 100*(6/8)=75(%). Thus, formula (1) successfully deals with both variants of economic freedom (or other scaled indexes). Therefore, it does not matter if some index has scales of 0 to 20 and others have 0 to 100, because formula (1) successfully rescales them into a fully comparable format by way of simple arithmetic. Both will have a scale of 0 to 100 percent.

At the same time, the human rights index (Fariss et al., 2020; Our World in Data, 2022) is rare in updates. There is a new index with a higher update frequency called the Human Rights and the Rule of Law Index [HRRI] (The Global Economy.COM, 2022); it is an excellent

substitute for the original Human Rights Index. It is a negative scale index ranging from 0 [best] to 10 [worst]. The greater the value of the index – the worse the situation is. Formulas 5 and 6 represent the proper algorithm for rescaling this index for ETPI [instead of common Human Rights Index for applying to the ETPI formula]:

$$MHRRI_{i,t} = (100-10* HRRI_{i,t})/100 = 1-(0.1)* HRRI_{i,t}$$
(5)

$$\mathrm{EMHRRI}_{i,t}^{RG} = \frac{100\% * \mathrm{MHRRI}_{i,t}^{LD}}{\mathrm{max}(\mathrm{NRDh}_{t}^{LD})}$$
(6)

Notes: MHRRI_{i,t} is a modified Human Rights and the Rule of Law Index; HRRI is the original Human Rights and the Rule of Law Index; EMHRRI^{*RG*}_{*i,t*} is the Human Rights and the Rule of Law index for estimating the ETPI index (substitute for the Human Rights Index (Fariss et al., 2020; Our World in Data, 2022) with higher frequencies of updates). LD – means to the last known date by t; t – means specific time for evaluating the index (for example, year 2021); i – means specific country [or region]; 100% indicates the necessity to reproduce the results in comparable percentages for all indicators. Max means the maximum value for a specific period t [for the last date (LD) known].

Nevertheless, there can be a question conerning what index is better for the ETPI: the Human Rights Index or the Human Rights and the Rule of Law Index. Both indexes represent a similar proxy variable for describing the situation with human rights.

Further, the Human Rights Index (HRI) is a better fit for the final estimation of the ETPI index. At the same time, HRI has a lower frequency of updates. Therefore, HRRI can become a proxy index for estimating human rights for the most recent periods. Researchers can replace HRRI with HRI as soon as HRI becomes available (it will correct the final ETPI index).

Original scientific paper

SHIFTING THE FOCUS FROM MERE WINE (AND) TOURISM TO THE WINE DESTINATION AND WINESCAPE CONCEPT

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Abstract

The aim of the article is to define the concept of winescape, in cooperation with wine tourism and wine destinations to take further steps towards the possible development of this concept. The article discusses the first mention of the term winescape, its later development, as well as the current theoretical background and possible further variations in the understanding of this concept. Secondary sources form the basis for the fulfillment of the objective using the synthetic method and previous research. In addition to the development of wine tourism, the wine industry and viti/viniculture, the concept of winescape is also considered from different angles, particularly in relation to the aspects that characterize wine tourism of a particular wine destination. However, this field of interest lacks a conceptual anchoring and a definition of the concept of winescape and its anchoring in the different wine-producing countries have not yet been completed, and the uniform understanding and use of the terms wine destination and winescape remain limited.

Keywords: Winescape, Attributes of Wine Destination, Wine Tourism, Wine Regions

INTRODUCTION

Viticulture and wine production lead to remarkable changes in the local and regional configuration of rural landscapes (Valduga & Minasi, 2022). When we think of a particular wine region, we often think of a landscape with its culture and tradition, a place of relaxation, a place associated with grapes and wine. Wine and wine landscapes are unique products of contemporary culture that demand local experiences, discovery and consumption of cultural products, and lifestyle associated with them. Peters (1997) insinuates that viticulture, when is successful, transforms the local landscape into a combination of agriculture, industry, and tourism. The synthesis of wine and tourism demand has driven the expansion of these sectors outside their traditional European homelands (Senese, Wilson & Momer, 2012). The appeal of terroir, regional destination branding (Hall, Sharples, Cambourne & Macionis, 2000b) and (tourist) signage has led to a surge in attention to wineries in many wine regions beyond the

Old World of wine (Senese et al., 2012), along with complementary attractions (Byrd, Canziani, Hsieh, Debbage & Sonmez, 2016), culinary schools, and overnight stays at wineries (Bruwer & Alant, 2009). Understanding of the wine tourism industry continues to evolve globally, with different perspectives on its benefits (Byrd et al., 2016; Dixit, 2022). As a result, new approaches and concepts are naturally emerging, one of which is the winescape concept (Williams, 2021). This concept, which can be understood as the image of a destination, has evolved over time (Byrd et al., 2016) and is becoming increasingly important in the wine tourism industry. Thus, considering different approaches, the combination of wine production and wine economy in an area that also offers cultural and historical attractions as well as tourist events amidst the landscape could play a role in defining a wine destination. Therefore, this article introduces the concept of winescape that has evolved to date and explains its further conceptual understanding. A wine destination is also explained from the perspective of the tourism sector, which has evolved with the wine sector into the concept of winescape.

THEORETICAL BACKGROUND

Wine production and the wine industry have many positive effects on other (not only) economic sectors (Wine Fund, 2023). Both have rapidly gained popularity and developed, especially in areas outside the traditional wine regions of the Old World (Carmichael & Senese, 2012). More recently, viticulture has been linked to the tourism industry in many regions. These sectors are rapidly evolving to form a combined sector, such as wine tourism (Dodd, 1995; Getz, 2000; Kubát & Kerma, 2022; Mitchell & Hall, 2004).

Wine tourism is a form of rural tourism (Mitchell & Hall, 2004) as well as special interest tourism (Scherhag, 2016) and a sub-form of gastronomy tourism (World Tourism Organization, 2019). It includes all tourism activities related to wine (Scherhag, 2016). There are several definitions of wine tourism. One of the definitions comes from Dowling (1998) and goes back to the first wine tourism conference in Australia in the Margaret River wine region. He defines wine tourism as experiential tourism in wine regions that provides an exceptional experience encompassing wine, gastronomy, hospitality, culture, art, education, and travel. Further definitions are added by Hall and Macionis (1998) and Hall et al. (2000b) based on research in the New World of wine. An initial wine tourism definition, which is probably still the most widely accepted, was introduced by Hall (1996) as "visitation to vineyards, wineries, wine festivals, and wine shows for which grape wine tasting and/or

experiencing the attributes of a wine region are the primary motivating factors for visitors." Kerma (2018) builds on the first definition and currently adds wine culture to the definition by further explaining wine tourism as (local) food culture, regional food, and culinary arts. Bruwer and Alant (2009) specify that "wine tourism is also related to wine as a product and to the place where the wine is produced, and also creates a strong link between this type of tourism and lifestyle."

The concept of wine tourism, or enotourism, has ancient roots, but its modern incarnation as a structured industry began in the 19th and 20th centuries. Although it is difficult to pinpoint a single location as the definitive birthplace of wine tourism (Hall et al., 2000b). Hall, Johnson and Mitchell (2000) emphasize that wine tourism began primarily in the wine regions of the New World. Hall and Macionis (1998) and Hall et al. (2000b) point out that visiting vineyards has been part of organized travel since at least the Grand Tour, and that educational wine trails have been part of the German tourism industry since the 1920s, with the first educational wine trail *Weinlehrpfad* being established in Schweigen.

Several regions played an important role in its early development (Hall et al., 2000b). One such region is the Rheingau in Germany. According to some sources, the town of Johannisberg in the Rheingau can be considered one of the earliest examples of organized wine tourism. In the early 18th century, the prince bishop of Fulda established a guest house at Schloss Johannisberg, a famous winery in the region. This guest house welcomed travelers interested in wine, providing them with accommodation and the opportunity to taste and buy wines from the estate. This early example of hospitality and wine-oriented tourism laid the groundwork for the development of wine tourism in other regions. According to some sources, the origins of wine tourism go back even futher in time, to a type of wine tavern called *Straußwirtschaften*, which are a centuries-old tradition and can be found throughout the wine regions. In these original seasonal wine bars, winegrowers were granted the right (still valid today) to sell their wines and food on the premises and to indicate this seasonal offer by hanging a wreath of flowers on the gate. They are an indispensable part of German wine culture (German Wine USA, 2021; Schloss Johannisberg, n.d.; Wines of Germany, n.d.).

Overall, wine tourism has probably developed independently over time in different wineproducing regions, driven by factors such as cultural heritage, economic incentives, and the desire to showcase local wines and hospitality to visitors (Hall & Macionis, 1998). As part of the diversification and development of rural areas in the wine and tourism sector, it is becoming increasingly important and has the potential to generate revenue at both regional and individual levels (Hall et al., 2000a).

Understanding Wine Tourism for the Emergence of a Wine Destination

As described above, wine tourism (mostly) takes place in an area where the wine production and vineyards are located so that visitors can easily get a glimpse of the production area and observe the vines and grapes from germination to the bottle of wine and a first sip directly at the place of their creation. According to Scherhag (2016), these are activities whose purpose is or includes the tasting and consumption of wine at or near the source (its origin). As pointed out by Sottini, Barbierato, Bernetti, Capecchi, Fabbrizzi and Menghini (2019), such a place can be considered a destination of final interest, in the context of tourism as tourism destination. The World Tourism Organization (2019) defines a tourism destination as:

"...a physical space, with or without administrative and/or analytical boundaries, in which a visitor can spend an overnight. It is the cluster (colocation) of products and services, and of activities and experiences along the tourism value chain and a basic unit of analysis of tourism. A destination incorporates various stakeholders and can network to form larger destinations. It is also intangible with its image and identity which may influence its market competitiveness."

Saraniemi and Kylänen (2011) further complement and expand a further delineation of tourism destinations and approaches in their paper. The link between wine tourism and tourism destination leads to a wine tourism destination, which, as Sottini et al. (2019) also emphasize, could be a wine-producing area in which wine tourism activities also take place. A wine-producing region can be understood as an area where wine is produced and has its origin. That is, the place where the vines are grown, and the grapes are processed into the final product, the wine.

From a traveler's perspective, the terms wine region and wine tourism destination can be used interchangeably. Hall et al. (2000a) point out in more detail the link between the destination and the wine region. In a typical wine destination, the wine tourist usually finds a rural environment that is conducive to grape growing and related aspects such as wine production, wine landscapes, and tasting rooms where visitors can sample wine.

In the Czech Republic, for example, wine tourism is linked to the area where the grapes are grown – as, of course, in almost all wine regions of the world. Such a region, which also offers other grape or wine products and related services, could be called a wine tourism region. To emphasize the tourism focus of such a region, the term can also be used as a wine destination – a wine region combined with a tourism destination (Kubát & Kerma, 2022). The

growing interest in wine tourism has resulted in the emergence of such wine destinations, from the well-known Old World wine regions in Europe, which include Champagne in France and Mosel in Germany, to the New World wine regions in Australia, New Zealand, South Africa, Chile, the United States, etc. (Thompson & Prideaux, 2022). The concept of a wine destination will probably continue to be treated mainly in the context of a defined area that offers tourist services and attractions and where vines and wine production are also present (Kubát & Kerma, 2022).

In a study by Faulkner, Oppermann and Fredline (1999), the destination of South Australia was analyzed comparing its main attractions and tourist offerings to other destinations in the country. This destination could offer well-known wine valleys such as Barossa Valley or Hunter Valley in its portfolio. Therefore, the respondents mentioned these wine regions as one of the main attractions of South Australia as a destination. Based on this, we can conclude that these wine regions have a distinct image as they are considered the main attraction for potential visitors. The Barossa Valley has been called the 'cradle of the Australian wine industry' (Ibid.). Thus, one way to think of a wine destination as such is a destination that includes many attractive places to consume, one of which is the main wine region in the eyes of visitors, which can lead to the entire destination taking on the image of a wine tourism destination.

Another way of understanding a wine destination is offered by Telfer (2001) using the example of the Niagara region, which became one of the most important wine tourism destinations in Canada through the establishment of the Wine Route. Telfer divides this wine route into three stages according to the competitive advantages of the embedded clusters. Thus, he examines the transition of the Niagara Wine Route from a wine tourism village to a wine tourism town and finally to a wine tourism region. Strengthening the vertical and horizontal linkages within the wine destination can be developed at each of these levels. Another level at which the characteristics of the wine destination can be considered is the fact that the wineries themselves have become an important destination within the final level, the region. The wineries both collaborate and compete in the development and promotion of Niagara as a wine destination. The situation in each of the three study areas is evolving towards highly interconnected networks. Tourism is inherently connected to the nature of place, and so is a wine region. The Niagara region has the advantage of not only being a major international tourism destination but also recently becoming home to a wine route. The synergies between wineries and tourism continue to grow as wineries themselves have become a major force in the tourism industry (Ibid.). As Scherhag (2016) notes, tourism and

wine businesses are working together to create all wine-related events for both tourists and the destinations themselves. The expansion of wine destinations, based primarily on the development of wine trails, is a relatively typical example for all wine-producing places around the world.

From Wine Destination Toward a Winescape

The regional wine environment is an important factor in the consumption of wine tourism products (Famularo, Bruwer & Li, 2010). This includes, in the case of rural landscapes where agriculture is commonly practiced, vineyards, landscape character, tasting rooms, tourist facilities, etc. According to some authors (Bruwer & Alant, 2009; Bruwer, Gross & Lee, 2016; Johnson & Bruwer, 2007; Thomas, Quintal & Phau, 2010, 2016), the preceding phrase can be captured by the term winescape concept. Although the concept itself is not new to the literature. It appeared as early as 1997 in a book by geographer Gary Peters. Peters expands the idea of wine regions in the Americas and develops the concept introduced by Stanislawski (1970) in his book on Portugal. However, another author, Myerscough-Walker (1968), mentions the concept of winescape even earlier than the previous authors. Myerscough-Walker explained this concept in the context of visitors' interaction with inns, hotels, restaurants, and clubs. Winescape emerged from the concepts of landscape and servicescape. Despite its origins in the cultural landscape discussion that has pervaded knowledge production since the early 20th century, literature on winescape did not appear more widely until the early 2010s (Valduga, Minasi, & Lohmann, 2022). This concept is currently being increasingly researched (Dixit, 2022; Kubát, Králiková & Ryglová, 2024; Terziyska, 2022; Valduga & Minasi, 2022) and is topical in wine tourism research (or well on the way to becoming one).

Winescape describes both the environment and the social interactions through which the wine tourism experience is co-created. Much of the winescape research is concerned with establishing a conceptual framework and identifying the individual attributes that make it up. The similarities in the various winescape models suggest a generic framework (Terziyska, 2022), as shown in Fig. 1.

According to Peters (1997), winescape refers to the attributes of the grape-growing area. Johnson and Bruwer (2007) define the winescape as the interaction of vineyards, wineries and other physical structures, wine, natural landscapes and environments, people, cultural heritage, cities and buildings and their architecture, and other human products. The processes

of vinification, production and sale of wine lead to the concept of winescape, which is part of the physical and cultural environment (Winkler & Nicholas, 2016). Here, the natural, cultural, and historical potential of rural areas is also highlighted, along with the associated tourism activities, in this case related to wine and its production (Kunc, Petr, Šauer, Tonev & Vystoupil, 2013). The winescape can be considered as another concept from this area of interest, similar to the concepts (in relation to wine, confirming its quality) of *terroir* or Wines of Original Certification (WOC), which can contribute to the selection and decision-making process for visiting a particular wine region or winery itself.





Source: adapted from Terziyska, 2022

Vineyards and wine landscapes are increasingly perceived by the territory as a more complex resource, composed of tangible and intangible assets, capable of providing certain goods and local services to residents and visitors (Sidali, Kastenholz, & Bianchi, 2015; Sottini et al., 2019). It is evident that the physical environment influences the vineyard and has an indelible impact on the resulting wine (Senese et al., 2012).

The relationship between the image of a destination in terms of gastronomy and the activities carried out in the destination is complex. Indeed, it is important to recognize that while gastronomy and wine are strong unifying themes for a tourism product and therefore can play an important role in promoting a destination, they are often not the main activities and attractions that tourists undertake when visiting a region (Frochot, 2003). Visitors may admire the complexity of a region for its enduring attributes, particularly nature (landscape)

and culture (heritage, customs), but also for additional features such as wine products, events, experiences, and sightseeing within the region (Bruwer et al., 2016). According to Valduga and Minasi (2022), the winescape can be considered a key element for tourism and hospitality. Considering the impact of land use, spatial planning, rural transformation, urbanization, implications, and consumption on a wine tourism destination means thinking about geographic, heritage and marketing approaches as the main components of the winescape, as shown in Fig. 2.





Source: adapted from Valduga & Minasi, 2022

DATA AND METHODS

The article discusses the first mention of the term winescape, its later development, as well as the current theoretical background and possible further variations in the understanding of this concept. Secondary sources form the basis for the fulfillment of the objective using the synthetic method. In addition to the development of wine tourism, the wine industry and viti/viniculture, the winescape concept is also considered from different angles, especially in relation to the wine tourism activities of a particular wine region and destination. The article is likely to constitute a critical review as it attempts to provide a reflective account of research conducted in a specific area of interest (Paré & Kitsiou, 2017).

RESULTS AND DISCUSSION

In general, winescape can be a designation for a landscape or an area where wine is grown. For example, it can be a description of the vineyards and surrounding countryside that is typical of the area where the wine is produced. Sometimes it is also used for paintings, photographs or other works of art depicting the landscape and surroundings of a wine region. This can range from an area of a few square kilometers to entire regions or even countries such as France, Italy or Spain that are known for their wine-producing regions.

The potential of wine tourism destinations to package exceptional wine tourism experiences (Ali-Knight & Carlsen, 2003) is yet to be fully explored and developed. It could provide a comparative advantage to those wine regions that recognize and embrace the transition from a service economy to an experience economy (Pine & Gilmore, 1999). Terziyska (2020) presents several approaches and the selection of winescape attributes that are not strict and can be selected depending on the chosen approach, research method or specific cultural or environmental attributes of the destination.

It is important to note that winescape is not limited to the external aspects of vineyards, wineries, or landscapes. The interior of the wine buildings, the underground cellars, the maturing cellars and the wooden barrels in which the wines mature are also part of the landscape. When interpreting the winescape, other non-material elements, such as scent, taste, sound, appearance, etc., are also taken into account (Valduga, Minasi, & Lohmann, 2022).

According to Bruwer and Alant (2009), it is the concept of the winescape that primarily motivates and drives the behavior and decision-making of wine tourists. This interpretation suggests that it would be quite appropriate to consider the dimension of the consumer himself and his experiences, emotions, behaviors, and habits in relation to the winescape. Previous research in the field of winescape has focused on the attributes of the region or wine destination (Bruwer et al., 2016) or the attributes of the wineries (Byrd et al., 2016). The focus is therefore on the supply side of the concept, on attributes that are inherently given to the region or on attributes that have been developed in the region. Researching the winescape from the consumer's perspective would, therefore, combine other fields of study such as consumer behavior, human geography and psychology. Based on the authors' previous work, the proposed composition of the winescape framework is presented in Fig. 3. It illustrates the aspects of two sectors and, in a further step, the attributes from the environment that affect

and are relevant to wine destination. It shows the connection of two sectors such as wine and tourism through their components, activities, and products to create a wine destination that utilizes aspects from a previous step while receiving other attributes from the region and consumers that appear towards a winescape concept.





Source: Authors

CONCLUSION

Winescape is a term that has recently emerged in the context of describing the wine experience and its origins. The term refers to the extensive cultural and natural environment that influences the characteristics of wine. The perception and development of the winescape concept is based on a broader view of wine as a product of landscape and culture, rather than simply a product of the vine. It describes the cultural, social, economic, and environmental landscape of wine production and consumption. It has evolved over time and is now widely used in wine tourism, marketing, and research. The development of this concept is closely linked to the globalization of the wine industry, which has led to an increased interest (especially) of visitors in the geographical and cultural origins of wine.

The winescape concept considers the various elements that make up the wine industry, including vineyards, wineries, wine regions and the people involved in wine production and consumption. It also encompasses the social and cultural practices surrounding wine, including wine rituals, wine and food pairing and wine tourism.

Developing the winescape concept is also linked to raising awareness of the conservation and sustainability of wine-producing landscapes. These efforts promote the use of traditional agricultural practices and sustainable farming to preserve the natural and cultural values of the landscape and produce quality wines.

The development of the winescape concept has been shaped by, as well it is the result of an interdisciplinary approach that integrates knowledge from the fields of enology, (cultural) geography, history, sociology, anthropology, economics, and marketing. This approach has helped to define the key components of the winescape (in this article) and to understand the ways in which is shaped by local and global factors. Incorporating the winescape into wine sales also allows people to better understand and appreciate the regional differences and characteristics of different wines. The winescape influences not only the cultivation of grapes and the production of wine, but also the overall experience with and of wine.

The winescape concept began to gain traction in the wine industry as wine producers and marketers sought to differentiate their products and appeal to a growing global audience. As the concept of winescape continues to evolve, it offers valuable insights into the complex relationships between wine, culture, and place.

The conclusions from the studies suggest that the winescape primarily motivates and drives the behavior of wine tourists. The lack of a consensually accepted definition of wine tourism in the field of tourism and leisure research has led to ongoing disagreements over important issues and concepts. One of these is the conceptualization of the regional brand aspect or the concept of winescape in relation to tourism services. As the concept is still in its prime, the possible development of this concept in the manner described in this article, through the proposed composition of the winescape framework, could enrich and further explore and develop the concept to consolidate its bases.

The scaling of the winescape concept addresses the pressing need for empirical evidence that captures the attributes associated with winery supply. From a winery management perspective, it provides wineries with a diagnostic tool to evaluate their wine region and helps them guide their market positioning and service activities in the marketplace by listing and sorting the key attributes of the winery and destination. From a destination management perspective, the concept is useful to enumerate the key factors that can be the main motivation for visitors to visit the selected destination and a specific place, and it also identifies the possibilities to improve the necessary destination factors, e.g. as part of the development of strategic plans for the destination.

Previous studies and their findings, many of which are mentioned in this article, provide insight into the winescape concept and its delineation and position in the background of wine tourism. This concept provides an empirical decision-making framework that is freely applicable and generalizable in the context of wine tourism and in any wine destination or winery. By arranging and implementing attributes already used in winescape research, it can be adapted to any wine destination and enriched with new attributes typical of the destination.

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Original scientific paper

PRINCIPLES OF NEOLOCALISM IN THE NAMES OF CZECH MICROBREWERIES

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Abstract

Microbreweries belong to a group of SME businesses, which among other things contribute to local economies and tourism which in turn supports sustainable development of municipalities and local areas. The presented article focuses on motives for choosing a microbrewery's name with regard to the use of neolocalism principles. The researched sample included all microbreweries in the Czech Republic established till end of 2022 year (506 by 31. 12. 2022). Primary and secondary data collection took place from January till March of 2023. We used regression analysis of panel data. Out of the researched sample (506 craft breweries), the influence of neolocalism has been proven in 65% of cases, another 14% of microbreweries are named after their respective founder, and the remaining 21% of microbreweries in the Czech Republic had a different driving factor for choosing their name altogether. Other factors possibly influencing the name of a microbrewery, such as the establishment year, whether or not the microbrewery has its own taproom or the area in which it is located, have also been examined. Out of these factors, only the existence of a taproom has been proven to affect a microbrewery's name.

Keywords: Local brand, Microbreweries, Neolocalism, Yer of establishment, District.

INTRODUCTION AND THEORETICAL BACKGROUND

During a time when a shift of paradigm can be observed – one away from globalization to a paradigm of sustainable development of local areas, a symptom of which is the effort of consumers to support local brands (e.g., Zeugner-Roth et al., 2015; Dušek, 2017; Pícha & Skořepa, 2018; Pícha, Navrátil, & Švec, 2018; Khan et al., 2023) – the term *local brand* is very often discussed. Locality is a concept with a long history in multiple disciplines, including philosophy, anthropology and sociology (Benjamin, 1936; MacCannell, 1973). This shared principle is labeled as neolocalism, which was first formed by an American geographer J.R. Shortridge (1996), who defined it as follows: "A deliberate search for regional traditions and binding residents to a locality as a delayed reaction to destroying traditional bonds within both communities and families in the USA." This idea, applied to the brewery industry, is being researched by Flack (1997) for example, who was the first to demonstrate this connection with the increase of microbreweries in the USA, which has been recorded in the 1980's and 1990's.

In his research, he argues that it is precisely microbreweries, the increase of farmers' markets, or local festivals that are examples of support upon realizing the importance of ties and connections to one's locality (Flack 1997). Schnell and Reese (2003) explain that microbreweries are a specific tool used to strengthen local identity. They classify the term neolocalism as a tendency of individuals or groups of people to separate themselves from homogeneity and popculture. Subsequently, they create, cultivate and strengthen the connections of local communities, local identities, environment and ties to local economies (Schnell, Reese 2014). Holtkamp et al. (2016) state that neolocalism is the answer to homogenization of economies, city environment and that it is a deliberate attempt to create a new "sense of place", which is an attribute of community. Reid and Gartnell (2015) add that neolocalism does not only explain a connection between people and a place, but can also be used to restore traditions and values which have been connected to a locality in the past, but have since been broken, mostly because of globalisation. Craig et al. (2020) identified a strong link between neolocalism and local or regional development, particularly in the case of the food industry or tourism.

Herskowitz and Crystal (2010) recommend combining neolocalism with marketing and state that due to these qualities, neolocal themes and motives can be and have been deployed systematically in marketing as brand narratives to create a positive association with the product. Ikäheimo (2021) adds that with active storytelling forming the core marketing startegy, locality and the sense of place can be produced, reproduced and maintained in a multitude of ways to add distinctiveness to the product competitive marketing environment. Taylor and DiPietro's (2020) results suggest that enhanced neolocalism contributes positively to customer satisfaction.

The authors of this article were inspired by the following research: Ikäheimo, 2021; Schnell, 2013; Holtkamp, 2016; Debies-Carl, 2019, etc., which focuses on establishing and analyzing motives that lead to the selection and creation of brands by a specific group of SMEs, microbreweries. This article's topic is to explore, which motives lead to the creation of microbreweries' brand in the Czech Republic.

In the Czech Republic, just like in the rest of Europe, there has been a boom of microbreweries since 2010 (Březinová, Skořepa, 2019; Hasman et al, 2023). From 2010 until 2019, more than 350 microbreweries have been founded in the Czech Republic (Březinová, Havelka, Bartoš, 2019). By 31. 12. 2022, there are 506 established already. The overall production of the Czech brewing industry in 2022 was 20.5M hectolitres, with

microbreweries contributing 2.5% (Celní správa České republiky, 2022). The Czech legislation differentiates (as oppossed to Poland, USA or Slovakia) between a few different brewery types based on the volume of their production. The biggest group, industrial breweries, has a production of more than 500,000 hectolitres per year, followed by regional breweries with a production of up to 500,000 hectolitres per year. Then there are restaurant-type breweries with a production of up to 200,000 hectolitres per year and finally microbreweries with a production of up to 10,000 hectolitres per year (Novotný, 2004).

A microbrewery in the Czech Republic is hence defined by a production of up to 10,000 hectolitres per year as well as by the way they brew beer, where the beer is brewed according to traditional recipes and is not filtered nor pasteurised. One of the symptoms of the societal shift from a global paradigm to one that supports sustainable development is a change in consumer behaviour, where the consumer prefers local products and foods (Pokryvčák, 2019; Craig et al, 2020). This results in the establishment of a large number of local brands and the use of neolocalism, which connects the sense of place and the product itself.

DATA AND METHODS

This research was motivated by Holtkamptov's (2016) study, which uses three indicators as identificators for neolocalism in microbreweries: 1) local names and images used in labeling and marketing; 2) environmental sustainability; 3) social and community engagement. In the presented study, the authors focus on the first indicator, the brewery's name. The research was carried out from January till March of 2023, and the websites for all the craft breweries established in the Czech Republic till 31. 12. 2022 were analyzed to assess neolocal practices. Authors looked specifically for branding (e.g., name of the brewery). If the information was not available, microbreweries were questioned via phone call or an in-person visit. Data from all 506 microbreweries were obtained this way. Subsequently, the data were edited and modified.

Data regarding a microbrewery's name were divided into groups based on frequency; 5 groups of answers were created. 1) name of a brewery based on the name of a municipality, its area or a street where the brewery is located. 2) name of a brewery is related to the municipality's history (historical event, historical person living in said municipality, historical monument in said municipality or its proximity, historical house/object that has been in the municipality longer than said brewery), 3) name of a brewery based on a unique natural

formation in said municipality or its proximity (cliff, tree, lake, animal or plant species, river, dam etc.), 4) name of a brewery based either on the owner, founder, one of the founders, brewers or related to the brewery's history. The fifth and last group includes all other answers that don't fit into any of the aforementioned categories. The obtained data were analyzed by content analysis and contingency tables. The results are divided according to selected segmentation criteria: year of the brewery's establishment (there has been a significant increase of microbreweries since 2010, therefore there are only 3 groups up until this year and each year is analyzed individually since then), a type of microbrewery (with taproom MR and without taproom MP) and regions of the Czech Republic where the brewery is located (D1 to D14).

The analysis of selected variables' influence on a brewery's name was conducted via regression analysis of panel data. The stationarity of variables plays an important role while working with panel data, as they are a combination of both time and cross-sectional dimensions. All of the variables have to be relatively stable around the mean value and time dispersion, otherwise, estimation of the regression model, in the sense of a seeming regression, might be distorted. The testing is carried out via Dieckey Fuller's test of unit root (ADF test). In the next step, specific estimation techniques are chosen. It is necessary to take into account the character of econometric model, the optimal character of provided estimates, the purpose of the estimated model, the difficulty of the method used both on quality and quantity of data and its robustness, but also the accessibility of adequate software and time and cost difficulty of the calculations.

Based on the estimated parameters of the econometric model, meaning both estimates of regression coefficients and estimates of stochastic parameters of random parts' distribution as well as observed values of the explanatory variables, the theoretical values of all explained variables are determined. This leads to the solution of the econometric model (Baltagi, 2008). The most famous estimation procedure for determining numerical values of parameters of a single-equation linear regression model out of one selected observation of all its determinable parameters is the method of least squares.

Considering the specific nature of the data, there was a need to use tools compatible specifically with the mentioned data type. Estimation of panel data can be carried out in three ways: using pooled regression model (Pooled Regression), a model with fixed effects (Fixed Effects Model) or a model with random effects (Random Effects Model) (Greene, 2003).

The pooled regression model is also labeled as a comprehensive model and its equation is as follows (for one explaining variable):

 $Y_{it} = \alpha + \beta X_{it} + \epsilon_{it} \qquad (1)$

It is a standard regression model, where Yit is the explained variable, Xit is explaining variable and letters α , β mark coefficients, or rather parameters of the model. The letter ϵ_{it} marks a random part. Judging from the names, it can be expected that the explaining variable is going to explain (affect) the dependent variable and coefficient β is going to determine the effect of variable X on Y. This comprehensive model is not suited for most panel data (Baltagi, 2008).

The fixed effects model is used for modelling individual effects of an artificial variable. While this regression has a wide variety of explaining variables, it is still a regression model. For this reason, all information about regression models and the aforementioned regression equation also apply here.

 $Y_{it} = \alpha_N D_{it}^{(N)} + \beta X_{it} + \epsilon_{it} \qquad (2)$

As opposed to the previous model, this one assumes a variety of cross-sectional units in absolute numbers, hence the need to create N different artificial variables for the fixed effects model, which are labeled as D(j), where j = 1,...,N (Baltagi, 2008; Green, 2003).

The random effects model does not use artificial variables, but it does assume that individual effects are random quantities. The random effect model can be expressed similarly to the Individual effects model using the equations:

 $Y_{it} = \alpha + \beta X_{it} + \epsilon_{it} \qquad (3)$

where, however

 $\epsilon_{it} = v_i + u_{it}. \quad (4)$

Random effects model can be expressed as a regression model, however, the random part of regression is different. It is a combined random part which was created by combining a random element of a specific observation in a cross-sectional variable and a random element which is a feature of a cross-sectional variable (Baltagi, 2008; Green, 2003).

A more formal recommendations regarding the suitability of each test are given by panel diagnostics, one of the most important ones being Hausman's test, which recommended to estimate the model using fixed effects for the chosen data sample.

The model of dependency of a brewery's name was construed using the following equation: Name of the brewery_{it} = $\beta_0 + \beta_1 Year_{it} + \beta_2 TypMPMR_{it} + \beta_3 District_{it}$ Where:

t

I marks a specific state in the range of 1,...,n,

marks a specific year in the range of 1,...,t,

Year is the year of establishment

Typ MP/ MR the type of brewery MP-microbrewery with taproom/MR –microbrewery without taproom

District expresses the area/region where brewery is located.

RESULTS AND DISCUSSION

This article discusses the different ways which influence how microbreweries in the Czech Republic choose their name and whether or not the neolocalism plays a role in this process. Microbreweries are classified as local producers, and their consumers are for the most part located in their immediate vicinity. There are numerous limitations stemming from their production volume, one of which is also the lack of finances for innovation or for creating their brand. This is one of the reasons why a considerable part of microbreweries choose or design their name and brand themselves, all the while using the principles of neolocalism, as confirmed by the following results.

47% of microbreweries in the Czech Republic have a name based on the name of a municipality (answer 1), 12% of microbreweries have a name related to their respective municipalities' history (answer 2), names based on a unique natural formation located in specific municipalities or their proximity (answer 3) can be seen in 6% of microbreweries while a name related to the founder (answer 4) constitutes 14% of microbreweries, and the remaining 21% have stated a different motive for their name altogether (answer 5).



Figure 1 Using of chosen principles (1 to 5) while choosing the name of a microbrewery.

Source: Authors' own work

Suppose we were to combine answers 1 to 3 for a clearer ranking, as they all correspond with the meaning of neolocalism (a connection with a place). In that case, we can see that 65% of microbreweries were influenced by said principle when choosing their name. 21% of respondents have stated other reasons for choosing their name; names of breweries which were created based on a questionnaire for the inhabitants or an owner's attempt to make a joke can be found here (the intention to make a joke or be sarcastic constitutes 34% of this category's answers). The most bizarre case of brewery brand Hulvát (lout) was a reaction to the Czech presidents' inappropriate behaviour at the time. According to the selected segmentation criteria, the results of this research are presented in the following graphs, where the answers 1 to 3 are already combined. Consequently, motive 1 combines answers that use the neolocalism principle, motive 2 (name of a brewery based on the name of the founder) and motive 3 (other reasons). As for the years when the principles of neolocalism were most frequently used to establish a brand for microbreweries, 2013 and 2015 are listed. On the contrary, in 2020, less than 40% of emerging breweries have used these principles.





Source: Authors' own work



Table 3 Using neolocalism principles while choosing the name of a brewery, differentiated by district (in %).

Source: Authors' own work

Using neolocalism principles for differentiating by district did not reveal any substantial findings, nor did it confirm Tvrzník's (2019) study stating that foreign tourists consider Czech beer as the second greatest attraction in the Czech Republic following historical monuments. Based on the findings that 80% of tourists visit mostly the Czech Republic's capital, Prague, it would be a logical assumption that the principles of neolocalism will be used the least here, as the customers of breweries in the capital will consist not only of Prague's inhabitants but also the tourists, of which a large part does visit the capital specifically. However, district 10 (Prague) is not the area using neolocalism principles the least. It is D4, an area close to the Polish borders. These principles are being used the most in D1, which is a southern part of the Czech Republic.

Table 3 Using neolocalism principles while choosing the name of a brewery, differentiated by existence of taproom (in %). MP microbrewery without a taproom, MR microbrewery with a taproom.



Source: Authors' own work

The abovementioned graph shows that microbreweries with their own taproom follow the principles of neolocalism more often than microbreweries without a taproom. On the other hand, microbreweries without a taproom have a name related to the founder more often. This result confirms Taylorová's (2020) finding that explains this result by stating that taproom microbreweries' consumers mostly reside in close proximity of the brewery, and it is therefore advantageous to use neolocalism as it builds a relationship between the costumers and a place, in this case the craft brewery. This conclusion is also confirmed by the result of panel data analysis in relation to determining the influence of all researched variables on the motive for choosing a brewery's name.

The conducted analysis showed an influence of a brewery's type on its name, with the relevance level even reaching 0.01. The coefficient of determination is 0.360200; hence the presented model explains 36% of a given variable's statistical dispersion. The analysis did not label Other monitored variables as statistically significant for the brewery's name.

| Variable | Coeff. | Std. Error | t-ratio | p-value | |
|-------------|------------|------------|---------|----------|----|
| const | 1,57829 | 0,287608 | 5,488 | 6,48e-08 | ** |
| | | | | | * |
| Year | 0,0189315 | 0,0185525 | 1,020 | 0,3080 | |
| TypMPMR | 0,587576 | 0,155325 | 3,783 | 0,0002 | ** |
| | | | | | * |
| District | -0,0107854 | 0,0181031 | -0,5958 | 0,5516 | |
| <i>R2</i> | 0,360200 | | | | |
| Adjusted R2 | 0,358790 | | | | |
| Prob (F- | 0,001023 | | | | |
| statistic) | | | | | |

| Table 1 Fixed effects model for the Name of the B | Brewery |
|---|---------|
|---|---------|

Note: ***, **, and * represent statistical significance at the 1%, 5%, and 10% levels, respectively. Standard errors are in parentheses. Source: Authors' own work

Demonstrating the influence of a taproom's existence in a microbrewery on its name can be linked to building the loyalty of customers, who are mostly generated from a brewery's immediate vicinity. Let's take into account Taylor's (2020) study, where it is stated that neolocalism has a significant positive influence on relationship quality, and relationship quality has significant positive influences on place attachment and brand attachment. The result of our research makes sense.

CONCLUSION

Three main groups of microbreweries that have created their brand based on different motives can be found in the Czech Republic. Firstly, there is the connection to a place where the brewery is located – this has been used by 65% of microbreweries as their motive. The principles of neolocalism, which stem from each area's uniqueness and history, myths or folk legends, can be seen strongly here. The second group of microbreweries, precisely 14% of microbreweries in the Czech Republic, uses the name of their founder. The last group's motives for choosing their name are classified as other, and attempts at humor or the use of sarcasm can often be seen here. However, completely individual motives are also present. For example, in case of the Hulvát microbrewery, the brand was created as a protest against the inappropriate expressions of Czech president Zeman, who had used vulgar language in his official speeches.

The following studies confirm that microbreweries develop place attachment through the use of location names, local sites, historical events and/or other place features in the brewery name (Eberts, 2014; Holtkamp et al., 2016; Myles & Breen, 2018;). As such, craft breweries are "promoted and consumed as part of place" (Schroeder, 2020) and are a "very effective form of place-making" (Fletchall, 2016) given the connections to the local (e.g. imagery, naming) and the experiential nature of the activity itself (e.g. imbibing in the brewery). In short, neolocalism is used by craft breweries to attach value and identity to a commodity as part of the marketing process (Ikäheimo, 2021). These claims are in accordance to the results of our research.

Lastly, we can say that neolocalism is a strong factor influencing the creation of microbreweries' name in the Czech Republic.

Another research will focus on proving the influence of neolocalism principles in the microbrewery field on customer loyalty connected to a brand and beer labels. We also want to find the motives that led to the naming of large industrial breweries. Here only a minimal influence of the principles of neolocalism can be assumed.

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