Thematic Issue
Social Entrepreneurship in the Global Context

edited by
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Parthenope University of Naples, Italy
Marek Ćwiklicki
Cracow University of Economics, Poland
Pierpaolo Magliocca
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Editorial Announcements

Editorial

Nowadays, Social Entrepreneurship attracts the attention of both academics and practitioners, as it is supported by the growth of the theoretical literature about the topic, as well as by the rise of new scientific and not scientific communities (Zahra *et al.*, 2009; Chell, 2007). However, in spite of this, social entrepreneurship is still a misunderstood phenomenon, challenged by competing definitions and conceptual frameworks, gaps in the research literature, and limited empirical data (Mair & Marti, 2006; Nicholls, 2006). As Cukier, Trenholm, Carl and Gekas (2011) show, the available studies about social entrepreneurship lack for consistency in definitions and the objects of focus, as well as for rigorous comparative analysis. In a content analysis of 567 unique articles concerning 'social entrepreneur' or 'social entrepreneurship', the authors highlight the existing overlapping between and among different levels of analysis, including studies of individuals (micro), studies of organisations and processes (meso), and broader studies of the economic, political and societal context (macro). They also found that the majority of the journal articles focused are more theoretically grounded than empirically based. Referring to its meaning, definitions of Social Entrepreneurship are often vague, covering a wide variety of activities and representing different models worldwide (Hoogendoon & Hartog, 2011; Kerlin, 2009; Nicholls & Cho, 2006). The multiplicity of actors involved in innovative and social activities, as well as the variety of motives which lie upon their adoption (Baccarani & Pedrollo, 2015) also improve the complexity of the phenomenon. Therefore, the need for a better understanding of social innovation processes in different contexts (e.g. Canestrino, Bonfanti, & Oliaee, 2015) was elicited, thus the present call for articles was announced.

According to the above considerations, this special issue includes two sections, namely the *Thematic Articles* and *Other Articles*. s. The *Thematic Articles* section consist of five articles. In the first article Marieshka Barton, Renata Schaefer and Sergio Canavati ask the question whether to be or not to be a social entrepreneur, and investigate the process of motivational needs influencing the intent of potential future social entrepreneurs amongst American business students. The next article, prepared by Paul Agu Igwe, Afam Icha-Ituma and Nnamdi O. Madichie and entitled 'The Evaluation of CSR and Social Value Practices Among UK Commercial and Social Enterprises', gives comments about social entrepreneurial intentions, which allows to explain ways of stimulating potential entrepreneurs to create a social enterprise. The next article is about the dimensions of the quality of work life (QWL) investigated in the Nigerian hotel industry by Nguwasen Kwahar and Akuraun Shadrach Iyortsuun. The authors pointed out the underlying variables for QWL for hotel employees. The fourth article written by Mohamed Mousa discusses responsible leadership among female pharmacists in the Egyptian health sector and shows the relationship between this type of leadership and work life balance. The fifth article by Agnieszka Postuła and Julita Majczyk deals with entrepreneurial competences of managers and leaders. This research article finally suggests that 'managers usually follow imposed goals, while leaders are expected to create their own directions of organisational development'.

The second section – *Other Articles* consists of five articles. It starts with a conceptual article arranged by J. Hanns Pichler who reviews the theoretical and empirical literature about SMEs and their role in business environment. After that, Erik Šoltés and Mária Vojtková evaluate the relationship between work intensity and socio-economic characteristics of Slovakia's households. The subsequent article presents determinants of regional exports base, panel analysis for Spanish and Polish regions. Tomasz Brodzicki, Laura Márquez-Ramos and Stanisław Umiński analyse NUTS-2 level within the period 2005-2014. In the penultimate article by Marta Götz, Barbara Jankowska, Anna Matysek-Jędrych and Katarzyna Mroczek-Dąbrowska, the governmental change and foreign direct investment flows to Poland and Hungary in the years 2010-2016 are investigated, basing on databases of UNCTAD. In the last article, Sławomir Dorocki studies changes in the market of two and three-wheeled motor vehicles in European countries between 2001 and 2014, finding that, in most countries, the PTW market was affected not only by the financial crisis, but also by legislative changes, the ageing of population, the processes of urbanization and increasing professional activity in developing countries.

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To Be or Not to Be a Social Entrepreneur: Motivational Drivers amongst American Business Students

Marieshka Barton, Renata Schaefer, Sergio Canavati

A B S T R A C T
Objective: The objective of this article is to investigate the process of motivational needs influencing the intent of potential future social entrepreneurs.
Research Design & Methods: California, Bay Area business students were administered a survey combining commercial entrepreneurship models and adding factors of motivation. Two stages of statistical analysis were performed based on the process and content theories of motivation. We used structural equation modelling to validate the model and paired samples t-test analysis to examine the differences between the motives underlying social entrepreneurship intentions.
Findings: 202 out of 364 students reported social entrepreneurial intentions. For the process-based motives, perceived feasibility and perceived desirability to start a social enterprise as well as exposure to entrepreneurship are significant predictors of students' intention to form a social enterprise. In addition, perceived feasibility is determined by entrepreneurship education and entrepreneurial self-efficacy, and perceived desirability is determined by students' desire for self-realisation and autonomy. For the content-based motives, the principal-component analysis indicates that students are motivated by the need for achievement and independence.
Implications & Recommendations: The findings provide insights into the formation of social entrepreneurial intentions as well practical implications for how to motivate future social entrepreneurs.
Contribution & Value Added: The study empirically shows the motives influencing a student's intent to form a social enterprise.
Article type: research paper
Keywords: social entrepreneurship; motivation; intent formation; social entrepreneurial curriculum; entrepreneurial curriculum
JEL codes: C33, F21
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INTRODUCTION

Social entrepreneurship constitutes a subfield of entrepreneurship study and practice (Dees, 2001; Certo & Mille, 2008) which spans the boundary between 'non-profits with earnedincome strategies and for-profits with social mission-driven strategies' (Abu-Saifan, 2012). Social enterprises represent a formidable force to help solve societal ills and achieve a sustainable triple-bottom-line economy (Mair & Marti, 2006; Nicholls, 2011; Weerawardena & Mort, 2006). As Santos (2012) states, 'Social entrepreneurship has profound implications in the economic system: creating new industries, validating new business models, and allocating resources to neglected societal problems.' A founder's application of business strategy used to achieve positive social impact represents a novel field of inquiry for researchers. Research efforts have produced a burgeoning body of literature in an attempt to conceptualise this nascent field (Certo & Miller, 2008; Easter & Conway Dato-on, 2015; Gawell, 2013; Lumpkin, Moss, Gras, Kato, & Amezcua, 2013). Due to the newness of the field, academic contribution has focused on qualitative research in an attempt to define the phenomenon (Dancin, Dancin, & Matear, 2010; Hockerts, 2015; Mair & Marti, 2006; Peredo & McLean, 2006; Short, Moss, & Lumpkin, 2009). However, a lack of consensus remains as to what precisely defines social entrepreneurship (Austin, Stevenson, & Wei-Skillern, 2006; Bacq & Janssen, 2011; Shaw & Carter, 2007; Weerawardena & Mort, 2006).

Given the absence of a definitive theoretical framework unique to social entrepreneurship, Dancin, Dancin and Matear (2010) reaffirm social entrepreneurship as a subfield of commercial entrepreneurship and advocate the use of existing frameworks as the most parsimonious and insightful approach to understanding the field of social entrepreneur-ship. Furthermore, Hockerts (2015) advocates the need for empirical studies to test and refine theories, despite the lack of a harmonious research construct, as the best means to understand the factors forming a person's social entrepreneurial intention. Understanding the factors impact-ing social entrepreneurship intention represents an important contribution to the devel-opment of social entrepreneurship theory (Mair & Noboa, 2003).

For this research project, we heed the clarion call to use existing theories and empiricism by using motivational theories within the framework of intention models to better understand the motives influencing a student's social entrepreneurship intent formation. Considering the world's state of unmet needs, identifying and motivating potential young social entrepreneurs as founders of businesses for social-wealth creation presents a necessary quest. While a handful of empirical studies have researched students' social entrepreneurship intent formation (Hockerts, 2017; Politis, Ketikidis, Diamantidis, & Lazuras, 2016; Salamzadeh, Azimi, & Kirby, 2013; Tiwari, Bhat, & Tikoria, 2017; Urban & Kujinga, 2017a, 2017b), this study represents the first empirical social entrepreneurship study to use antecedents of intent derived from motivational theories. We use Shapero and Sokol's theoretical entrepreneurial event model, as validated and refined by Krueger (1993), and extend it by including motivational factors as antecedents to attitudes influencing intent, thus building a richer model as encouraged by Krueger (1993) and others. The unique value of this paper consists of looking at motivational drivers through the perspective of process and content theories of motivation. This approach is well established in the field of Organisational Behaviour but not yet enough introduced in the field of Entrepreneurship or sub-

field of Social Entrepreneurship. As stated by Germak and Robinson (2014), social entre-preneurship constitutes a level of motivational complexity over commercial entrepreneur-ship given social entrepreneurs drive to make a positive social impact while simultaneously sustaining and/or growing the enterprise. Due to the inherent complexity of social entre-preneurship, process and content theories of motivation provide a useful framework to help illuminate the motivating factors (personal needs and values, as well as experience and education) inherent in the decision-making process to become a social entrepreneur. The intended beneficiaries of this public research are students as potential social entre-preneurs in need of curriculum relevant to initiating social enterprises.

After briefly covering the literature on social entrepreneurship, we discuss inten-tion and motivational theories and their applications in the commercial and social en-tre-preneurial domain. We then present the theoretical underpinnings of our social en-trepreneurship motives of intention model. After presenting the results, we discuss their significance and implications that empirically grounded motives of intent might have for social entrepreneurial educators and students.

LITERATURE REVIEW

Conceptualising Social Entrepreneurship

Most literature shows that entrepreneurial activities develop under a broad diversity of conditions and include both individual and situational variables (Barba-Sanchez & Atienza-Sahuquillo, 2012; Bird, 1988; Braga, Proenca, & Ferreira, 2015; Krueger & Brazeal, 1994; Shapero & Socol, 1982; Shane, Locke, & Collins, 2003). Some scholars emphasise founder characteristics defining social entrepreneurs as 'restless' change-makers (Germak & Robinson, 2014). Given market disequilibrium, opportunity recogni-tion represents another dominant stream of conceptualising social entrepreneurship ac-tivity (Martin & Osberg, 2007). While social entrepreneurs share opportunity recogni-tion abilities similar to that of commercial entrepreneurs (Austin, Stevenson, & Wei-Skillern, 2006), the opportunities inherent in systems of disequilibrium such as providing goods and services within the 'bottom of the pyramid' market strata are vastly different than conventional market opportunities (Dorado, 2006; Robinson, 2006). So-cial entrepreneurs can disrupt status quo practices as shared by Krige (2015) who states, 'Social entrepreneurship offers a potential shift in society and a unique way of address-ing challenges. It focuses on sustainability and accountability using a framework of best practices and matrices of social value and solvency to create opportunities for change.' Other scholars investigate the business process by focussing on iteration and innovation (Dees, 2001). A meta-analysis of the field's most cited literature summarised the domi-nant threads of definition as 'Social entrepreneurship encompasses the activities and processes undertaken to discover, define, and exploit opportunities in order to enhance social wealth by creating new ventures or managing an existing organisation in an inno-vate manner' (Zahra, Gedajlovic, Neubaum, & Shulman, 2009). Scholars agree social en-trepreneurs use sustainable business models to create social wealth and help solve so-cial and environmental challenges (Ayob, Yap, Rashid, Sapuan, & Zabid, 2013) and em-phasise its distinguishing feature as social-value creation over capital wealth creation (Germak & Robinson, 2014; Lehner & Germak, 2014; Lumpkin *et al.*, 2013; Mair & Marti,

2006; Miller, Grimes, McMullen, & Vogus, 2012; Visser, 2011). Recognizing that social entrepreneurs seem to embrace colossal social challenges, Germak and Robinson (2014) claim they must be driven by a more complex set of motivations.

Intention Theories

Motivational factors are inherent in the intentions that influence behaviour and are reliable indicators of one's intensity of effort used to perform a behaviour (Ajzen, 1991). As a result, intentions represent powerful predictors of behaviour, especially in the case of purposive, planned, and goal-oriented behaviour (Bagozzi, Baumgarten, & Yi, 1989). The decision to be an entrepreneur and to create a new business is an involved decision (Wilson, Kickul, & Marlino, 2007) that requires time, planning, and a high degree of cognitive processing. The effort and time involved in starting a business suggests that entrepreneurial actions are clearly intentional; thus, a decision to pursue an entrepreneurial career stems from planned behaviour, which can be explained by intention models.

Several authors have developed intention-based models to explain entrepreneurial intention. Ajzen's (1991) influential theory of planned behaviour (TPB) stems from psychology and has been successfully applied to entrepreneurship to explain and predict an individual's intent to act. TPB suggests that intention to perform a given act precedes the behaviour. Previous models relied too heavily on individual personality traits whereas Ajzen (1991) suggested using an aggregate approach to study behavioural intent. The validated TPB model states that attitudes, social norms, and perceived behavioural control (referred to as the 'antecedents' of intent) indirectly affect behavioural intention and are, therefore, useful in explaining an individual's intent to act (1991). A person will intend to form an enterprise if they have a positive attitude about the opportunity, have social-group support, feel capable and have the resources or access to the needed resources to successfully launch an enterprise. The power to predict an individual's future behaviour based on current preferences proves a powerful tool for both researchers and practitioners. Many researchers have used TPB to study entrepreneurial intention while extending the model to include contextual variables. For example, Wach and Wojciechowski (2016) surveyed Polish university students using Ajzen's theory of planned behaviour, extending it to include an attitude towards risk. They found that an attitude towards entrepreneurship, subjective norms, and perceived behavioural control form entrepreneurial intentions with the concept of risk varying between business and non-business students.

Shapero and Sokol's (1982) theoretical model, the entrepreneurial event model (EEM), pertains specifically to the domain of entrepreneurship. The EEM includes three propositions which indirectly affect intentions: perceived desirability, perceived feasibility, and the propensity to act. Most notably, they proposed perceived desirability and perceived feasibility as significant components in the process of forming a venture indicating that different individuals will have different perceptions of what they find desirable and feasible to accomplish. The EEM suggests that perceptions are more influential on forming intentions than objective facts (Krueger & Brazeal, 1994). Ultimately, the TPB and EEM are similar in their design. The EEM's construct of perceived desirability relates to TPB's constructs of behavioural attitude and social norm, whereas perceived feasibility relates to perceived behavioural control (Krueger, 1993).

Krueger, Reilly and Carsrud's (2000) comparative analysis of the two models confirmed their similarities, as well as their predictive power, yet found TPB to have an R^2 of 0.350 versus the EEM with an R^2 of 0.408. More importantly, Krueger suggested that the EEM might be a better choice for entrepreneurial intention as it more explicitly includes a 'volitional dimension' by gauging an individual's propensity to act. Krueger affirmed that beliefs influence attitudes such as the perception of desirability and feasibility, which then, indirectly, influence intentions. He validated and emphasised perceived feasibility and desirability as important antecedents of intentions (Krueger, 1993; Krueger & Brazeal, 1994; Krueger & Reilly, 2000). Krueger noted that entrepreneurial intentions could result if individuals feel both a positive affection toward entrepreneurship and perceive they are capable of a behaviour that contributes to entrepreneurship. Furthermore, Krueger replaced the proposition 'propensity to act' with the construct 'intention' into Shapero and Sokol's (1982) EEM helping to create a more refined, parsimonious model of intention.

Social Entrepreneurship Intention

Numerous researchers have used existing intention theories to conduct empirical studies delineating the antecedents to social entrepreneurship intention (SEI) formation. Several studies have applied the theory of planned behaviour (Ayob *et al.*, 2013; Politis *et al.*, 2016; Salamzadeh & Azimi, 2013; Tiwari *et al.*, 2017) and the entrepreneurial event model (Ayob *et al.*, 2013, Hockerts, 2017; Urban & Kujinga, 2016, 2017) to social entrepreneurship intention using a population sample of university students facing career decisions. Research has confirmed the predictive power of perceived desirability and perceived feasibility on social entrepreneurial intent formation (Urban & Kujinga, 2017a). Researchers customise the existing models to address the unique domain of social entrepreneurship given a study's social context. For instance, Tiwari *et al.* (2017) studied university students in India using the TPB model and found that social norms significantly impacted intent formation attributing it to the influence of India's collectivist culture. Whereas Ernst (2011) also used the TPB model to study SEI amongst a German student population but found that social norms did not relate to intention. These findings show the influential power culture has on forming the motives that drive intent and the necessity of designing culturally specific research models as a prerequisite to understanding SEI.

Mair and Noboa (2006) developed the first theoretical model specific to social entrepreneurship intention. They defined SEI as the behavioural intent to start a social enterprise. They used Krueger's (2000) model that synthesised Azjen's TPB and Shapero and Sokol's (1982) EEM to develop a theoretical SEI model. Similar to previous researchers, they put forward perceived desirability and perceived feasibility as the foundational antecedents to social entrepreneurial intention and postulated empathy and moral judgment as antecedents of the perceived desirability and self-efficacy and social support as antecedents of perceived feasibility. Noticeably, the primary difference in their model compared to the theory of planned behaviour and the entrepreneurial event model is located in the perceived desirability construct through the emotional and cognitive antecedents of empathy and moral judgment. The SEI model suggests that social entrepreneurs have different motives driving their desires than commercial entrepreneurs yet face similar factors of feasibility. Forster and Grichnik (2013) validated the SEI model by studying the social entrepreneurial intent formation of corporate volunteers. Their model included empathy and perceived social norms as

antecedents of perceived desirability and self-efficacy and collective efficacy as ante-cedents of feasibility. Hockerts (2015) also validated Mair and Noboa's (2006) SEI model by testing it with a population of university business students using a Social Entrepreneurship Antecedent Scale instrument. Both Forster and Grichnik (2013) and Hockerts (2015) research showed that the SEI model offered predictive power for per-ceived desirability and perceived feasibility of social entrepreneurial intent. These studies show a level of commonality between SEI models and findings that correlate an attribute of altruism such as empathy with perceived desirability and correlate an attribute of logistical know how such as self-efficacy with perceived feasibility in de-termining social entrepreneurial intention.

Motivations as Antecedents to Intention

Motivation plays an important role in creating new organisations (Segal, Borgia, & Schoenfeld, 2005) as it influences the decision-making process that occurs, e.g. motivation's influence on the decision to start a new business creation (Shane *et al.*, 2003). Motives that potential entrepreneurs offer for launching a venture relate to their values, beliefs, attitudes, and needs (Bird, 1988, 1989; Carter, Gartner, Shaver & Gatewood, 2003). It is especially rele-vant for understanding how motivation influences entrepreneurial behaviour as it influences an individual's direction of action, the intensity of action, and the persistence of action (Shane, Locke, & Collins, 2003; Locke, 2000; Braga, Proenca, & Ferreira, 2014). Motivated individuals are more likely to sustain interest in their goals resulting in higher likeliness of achieving their goals (Robbins & Judge, 2013). Consequently, human motiva-tion theory provides a useful framework for understanding how motivation occurs.

Process Theories of Motivation: How Behaviour Occurs

Process theories of motivation describe the existing behaviour and 'how' behaviour oc-curs, i.e., how an individual is motivated. Process theory of motivation (PTM) focuses on the intensity of persistence a person dedicates to activities (Segal, Borgia, & Schoenfeld, 2005) and relates motivation to behavioural intention by describing how individuals start, sustain, and stop behaviour (Borkowski, 2009). To better understand the process of entre-preneurial needs, Scheinberg and MacMillan (1988) conducted a factor analysis of the 38 items entrepreneurs reported for starting businesses, which spurred additional research. Most studies in this research stream use reliable multi-item indices and factor-analyses as a statistical technique to derive multiple dimensions describing entrepreneurial motiva-tions (Benzing, Chu, & Kara, 2009; Giacomin *et al.*, 2011; Jayawarna, Rouse, & Kitching, 2011). Research has uncovered five broad reasons for business creation: the need for recognition (authority), the need for financial success (wealth), the need for personal de-velopment (self-realisation), the need for independence (autonomy), and the need for de-veloping and implementing one's ideas (challenge).

Content Theories of Motivation: Why Behaviour Occurs

While process theories of motivation describe 'how' behaviour occurs, content theories of motivation describe 'why' behaviour occurs. Content theories of motivation (CTM) study the factors that motivate people to choose a particular alternative (Braga, 2015; Beardwell, Holden, & Claydon, 2004). Consequently, content theories of motivation fo-cus on the needs that motivate people to action, including the needs that energize,

direct, sustain, and stop a person's behaviour. Several authors agree that two distinctive needs or motives define entrepreneurs, the need for achievement and the need for independence (Brockhaus & Horwitz, 1986; Herron & Robinson, 1993; Shapero, 1982). The need for achievement can be a motivating factor in venture creation as many studies show the need for achievement in business success (Segal, Borgia, & Schoenfeld, 2005; Shane *et al.*, 2003; Rokhman & Ahamed, 2015). The need for achievement foretells entrepreneurial behaviour as it stimulates a strong desire to do things well or better than others, including their peers and even those with authority (Hansemark, 1998). People with a high need for achievement tend to plan their actions in advance (Barba-Sanchez & Atienza-Sahuquillo, 2012). They prefer situations where they have direct control over outcomes or where they can observe how their efforts affect the outcomes of an event. Individuals with a high need for achievement also appreciate recognition of their behaviours and achievements (Barba-Sanchez & Atienza-Sahuquillo, 2012; Germack & Robinson, 2014). Germak and Robinson (2014) highlight the need for achievement as a motivation especially relevant to social entrepreneurs given the enormity of social wrongs they seek to solve.

The need for independence is also considered a success factor in entrepreneurship. Some individuals pursue entrepreneurial careers because they have a pronounced need for independence (Shane *et al.*, 2003). Independence entails taking the responsibility to use one's own judgment as opposed to following the assertions of others blindly. It also involves taking responsibility for one's rather than living off the efforts of others. First, the entrepreneur takes responsibility for pursuing an opportunity that did not exist before. Second, the entrepreneur assumes responsibility for the level of a venture's success. Third, the entrepreneur must decide to start, sustain, or stop entrepreneurial activities requiring a high-level of personal judgment.

Motivation in the Context of Social Entrepreneurship

Some scholars have used qualitative methods (Braga *et al.*, 2014; Germak & Robinson, 2014) to understand social entrepreneurial motivations based on human motivation theories, yet there remains significantly less empirical knowledge to understand the motivational drives within the social entrepreneurship literature. As stated in the literature review, researchers agree that social entrepreneurs are motivated by their desire to have a social impact and to solve social problems (Alvord, Brown, & Letts, 2004; Shaw & Carter, 2007; Zahra & Dess, 2001) and are presumably driven by a more complex set of motives than commercial entrepreneurs in their goals to achieve financial sustainability, programme scalability, and, most importantly, social impact (Germak & Robinson, 2014). The aim of this article is to provide a deeper understanding of the motivational factors influencing the behaviours of potential future social-entrepreneurs in order to identify their entrepreneurial profiles. Therefore, we formulate the following key research questions:

RQ1: How is an individual's intention toward social entrepreneurship initiated and sustained? What role do perceived desirability and perceived feasibility play into the entrepreneurial process? What motives significantly affect perceptions of social enterprise desirability and feasibility and thus form behavioural intentions?

RQ2: Once students consider starting a social enterprise, what motivational factor energises them most? What type of motives are they attempting to satisfy?

HYPOTHESIS

Social Entrepreneurial Motivations of Intention

Our model is based on the work of Krueger (1993) and Krueger, Reilly and Carsrud (2000) who synthesized and refined Ajzen's (1991) TPB and Shapero and Sokol's (1982) EEM. As indicated, process-based motivation theories help illuminate how specific behaviour starts and what individual- and situation-based factors influence the process. Therefore, we use the theory of process motivation to develop the antecedents of social entrepreneurship intention, which are mediated through a student's perceived desirability and perceived feasibility (Figure 1).
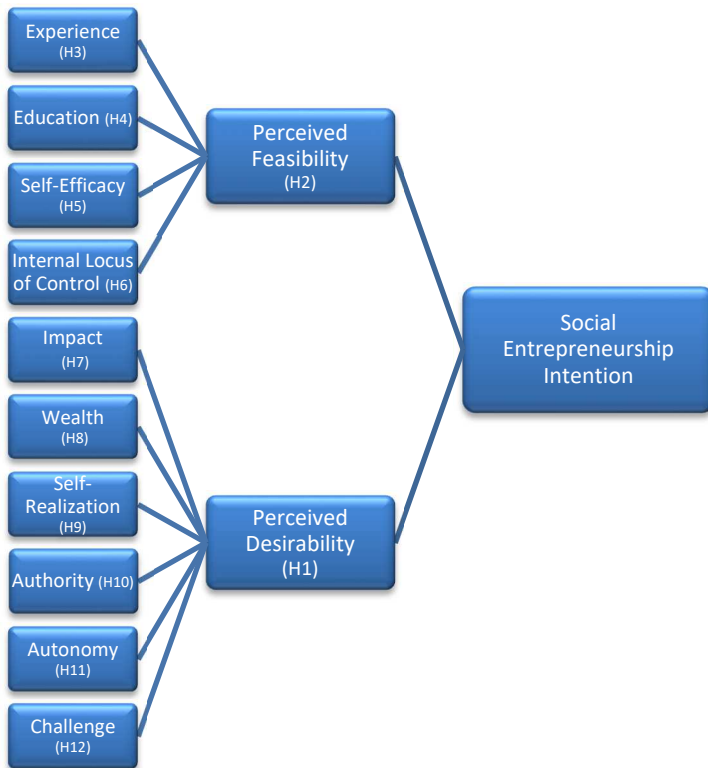
Figure 1. Process-based motivational intention model to create a social enterprise
Source: adopted theoretical factors of motivation from the psychological and entrepreneurship literature.

Perceived Desirability, Perceived Feasibility, and Social Entrepreneurship Intention

We operationalise SEI as the intent to start a social enterprise (Chen, Green, & Crick, 1998; Mair & Noboa, 2006). To address the first research question, we focus on the intention formation of the entrepreneurial process. In particular, we propose a model of how behavioural intentions to create a social enterprise form through Krueger's (1993) variables 'perceived desirability' and 'perceived feasibility' as research shows perceived desirability and perceived feasibility to be the strongest predictors of intent (Forster & Grichnik, 2013). The term 'perceived desirability' relates to how appealing

it is to an individual to generate an entrepreneurial event such as starting a social enterprise. The term "perceived feasibility" relates the extent to which an individual believes they have the capability to start a new venture. Based on the above arguments, we formulate the following hypotheses:

H1: A positive relationship exists between perceived desirability and the intention to establish a social enterprise.

H2: A positive relationship exists between perceived feasibility and the intention to establish a social enterprise.

Entrepreneurial Experience and Social Entrepreneurship Intention

Shapero and Sokol (1982) and Krueger (1993) emphasized that prior knowledge in the form of experience and education are significant predictors of entrepreneurial intention. An individual's experiences, such as volunteering, help form their motivations and attitudes toward entrepreneurship (Braga, 2015), which may also trigger the entrepreneurial process (Ajzen, 1991; Krueger, Reilly, & Carsrud, 2000; Souitaris, Zerbinati, & Al-Laham, 2007). As with perceived desirability and perceived feasibility, research suggests that experience has a direct relationship with intention versus antecedents which are moderated through one's perceptions. Based on the above arguments, we formulate the following hypotheses:

H3: A positive relationship exists between entrepreneurial experience and the intention to establish a social enterprise.

Antecedents of Perceived Feasibility

Situational factors also influence entrepreneurial intentions (Ajzen, 1987; Boyd & Vozikis, 1994; Tubbs & Ekeberg, 1991). Based on the evidence in the field of social en-trepreneurship and existing literature, we analyse three important antecedents stem-ming from situational factors. We propose that perceived feasibility is affected by 1) entrepreneurial education 2) an ability to perform a specific behaviour required for starting a social enterprise (self-efficacy), and 3) a belief that actions or personal characteristics affect outcomes over which they have direct control (internal locus of control). These three antecedents influence the perception of feasibil-ity and therefore indirectly affect one's entrepreneurial intention.

Entrepreneurial Education as an Antecedent to Perceptions of Feasibility

Noel (2002) showed that a direct relationship exists between entrepreneurial education and entrepreneurship as a career choice. Similarly, Wilson, Kickul and Marlino (2007) argued that entrepreneurship education increases interest in entrepreneurship as a career choice. Entrepreneurship education can spur business start-ups through changing students' mind-set and raising their entrepreneurial orientation (Fayolle, Gailly, & Lassas-Clerc, 2006). Based on the above arguments, we formulate the following hypotheses:

H4: A positive relationship exists between entrepreneurial education and the perceived feasibility of establishing a social enterprise.

Entrepreneurial Self-efficacy as an Antecedent of Perceived Feasibility

The term 'self-efficacy' refers to the extent to which people believe they have the capabilities to positively affect desired outcomes. Bandura (1982) suggests that self-

efficacy is 'concerned with judgments of how well one can execute courses of action required to deal with prospective situations.' In the entrepreneurship literature, self-efficacy has developed into the concept of entrepreneurial self-efficacy (ESE), which describes the extent to which an individual believes he or she can start an entrepreneurial venture (Chen, Green, & Crick, 1998). In the context of social entrepreneurship, individuals with greater self-efficacy are more inclined to create a social enterprise because they believe they can do so (Mair & Noboa, 2006). Based on the above arguments, we formulate the following hypothesis:

H5: A positive relationship exists between entrepreneurial self-efficacy and perceived feasibility of establishing a social enterprise.

Internal Locus of Control as an Antecedent of Perceived Feasibility

Many studies highlight the need for an internal locus of control in business success (Segal, Borgia, & Schoenfeld, 2005; Shane *et al.*, 2003; Rokhman & Ahamed, 2015). Locus of control describes a person's belief that his or her actions, rather than random elements such as luck or chance, lead to outcomes. Essentially, people attribute the reason for an occurrence either to themselves or to the external environment. Those who experience having control over occurrences have an internal locus of control (Rotter, 1996). Based on the work of Mueller and Thomas (2001) and Rotter (1996), individuals with an internal locus of control would be likely to seek entrepreneurial roles because they desire positions in which their actions have a direct impact on results. Based on the above arguments, we formulate the following hypothesis:

H6: A positive relationship exists between internal locus of control and perceived feasibility of establishing a social enterprise.

Antecedents of Perceived Desirability

As stated previously, the term 'perceived desirability' relates to how appealing it is to an individual to generate an entrepreneurial event such as starting a venture. The level of perceived desirability varies based on individual characteristics and is affected by person's values, needs, and attitudes. We propose that there is a positive relationship between students' entrepreneurial motives and the intention to start a social enterprise. We, therefore, wanted to discover students' primary motives and how motives help form social entrepreneurship intention.

The Need to Make an Impact (Impact Objective) as an Antecedent to Perceptions of Desirability

Competency, choice, and meaningfulness are key elements determining motivation amongst youths (Hertzberg, 1987). Studies show Millennials inspire to do well by doing good. As Buchanon (2010) found about Millennials, 'Almost 70 percent say that giving back and being civically engaged are their highest priorities.' Young adults want to get involved in finding solutions to complex issues that require creative problem-solving. Based on the above arguments, we formulate the following hypothesis:

H7: A positive relationship exists between the desire to make an impact and the perceived desirability of establishing a social enterprise.

The Need for Financial Success (Wealth Objective) as an Antecedent to Perceptions of Desirability

The wealth objective for business creation captures the importance of financial returns from entrepreneurship and emphasizes the desire for wealth and financial sustainability. As noted by Boschee (1995), social entrepreneurs tend to successfully balance both the 'moral imperatives and the profit motive.' Financial success not only relates to solvency but also to the means of scaling social-mission impact. Based on the above, we formulate the following hypothesis:

H8: A positive relationship exists between the need for financial success and the perceived desirability of establishing a social enterprise.

The Need for Personal Development (Self-realisation Objective) as an Antecedent to Perceptions of Desirability

This dimension captures the desire for personal development through entrepreneurship. It includes aspects such as having meaningful work, responsibility, fulfilling one's personal vision. Germak's (2013) quantitative study of newly formed social enterprises found a significant relationship between being a nascent social entrepreneur and personal fulfilment highlighting self-realisation as a possible motive for SEI. Based on the above, we formulate the following hypothesis:

H9: A positive relationship exists between the need for self-realisation and the perceived desirability of establishing a social enterprise.

The Need for Recognition (Authority Objective) as an Antecedent to Perceptions of Desirability

This reason for business creation captures aspects related to social status, such as the desire to receive recognition and respect from friends, family and the wider community for one's work as an entrepreneur. Previous researchers have operationalised recognition through the following three items: 'to achieve a higher position for myself in society,' 'to be respected by my friends,' and 'to achieve something and get recognition for it' (Carter *et al*., 2003). Based on the above, we formulate the following hypothesis:

H10: A positive relationship exists between the need for authority and the perceived desirability of establishing a social enterprise.

The Need for Nndependence (Autonomy Objective) as an Antecedent to Perceptions of Desirability

This dimension highlights the entrepreneurial motivation to control one's work life including control over one's own time and work, making independent decisions, and having the flexibility to combine work with one's personal life. Control of one's work leads to greater levels of engagement and creativity (Deci & Ryan, 2012). Based on the above, we formulate the following hypothesis:

H11: A positive relationship exists between the need for autonomy and the perceived desirability of establishing a social enterprise.

The Need for Winning; Developing and Implementing Own Ideas (Challenge Objective) as an Antecedent to Perceptions of Desirability

This dimension captures a desire for learning through the challenge of creating and effectively running a business. Challenge also relates to goal setting and the intrinsic motivation to meet important milestones (Germak & Robinson, 2014; Naffziger, Hornsby, & Kuratko, 1994). Based on the above arguments, we formulate the following hypothesis:

H12: A positive relationship exists between the need for challenge and the perceived desirability of establishing a social enterprise.

MATERIAL AND METHODS

We surveyed undergraduate business students at a California, Bay Area public university in the US. As stated by Krueger (1993), students represent an ideal sample population as they are 'currently facing actual major career decisions' and are devoid of hindsight biases. Students also represent a relatively homogenous sample due to their similar age range and levels of education and work experience. We used the Entrepreneurial Intention Questionnaire (EIQ) (Liñán, 2005) with settings of variables in the survey developed by Wach's 2015 Entrepreneurial Intentions Questionnaire (Wach & Wojciechowski, 2016). The resulting sample size totalled 364 survey responses. Research suggests that using entrepreneurial orientation scales are appropriate for social mission-driven entrepreneurs, but they need to be modified to include the situational context and subject of study variables (Kusa, 2016). Thus, we amended our scale to include questions on social entrepreneurship intention and motivation. Students were awarded points for participation and emailed the online questionnaire. Data collection occurred once in the Fall 2016 semester and once in the Spring 2017 semester.

We performed our analysis in two stages. The first stage was based on the model using process theory of motivation variables shown in Figure 2. This stage addressed the first research question:

RQ1: How is an individual's intention toward social entrepreneurship initiated and sustained? What role do perceived desirability and perceived feasibility play in the entrepreneurial process? And what factors significantly affect perceptions of social enterprise desirability and feasibility and thus form behavioural intentions?

Social entrepreneurship intention represented the dependent variable. Drawing from Krueger's (1993) model which measured intention as a dichotomous variable using the item 'Do you think you will ever start a business?,' we also treated the intention construct as a dichotomous variable asking students, 'Would you consider becoming a social entrepreneur?' The variable was set equal to 1 if the respondent considered creating a social enterprise at the time of the survey and 0 if otherwise. Using a dichotomous variable to measure social entrepreneurial intention best captured a respondent's intent to form a social enterprise as a yes/no question helps eliminate vacillation and abstraction. It also helped to stratify respondents into the two levels (yes/ no) versus a scaled rating which could have potentially produced multiple levels of responses and or erroneously skewed the data to the anchors or middle. To account for the fact that the dependent variable in our model is a dichotomous

variable, we fitted a model for social entrepreneurship intentions using path analysis and used a generalised structural equation model with a probit distribution for the dependent variable. See Table 1 below for a summary of the PTM section of the instrument.

Table 1. Process-based motivational variables

Independent Variable	Method of Measurement	Survey Item(s)
Perceived Desirability (H1)	Kruger's (1993) model for measuring perceived desirability	- How much would you like it? - How enthusiastic would you be? - How stressed out would you be? (reverse coded)
Perceived feasibility (H2)	Kruger's (1993) model for measuring perceived feasibility Cronbach's alpha = 0.678	- How hard do you think it would be? (reverse coded) - How busy do you believe you would be? (reverse coded)
Entrepreneurship experience (H3)	Measured using a dichotomous variable equal to 1 if the student had ever been self-employed and 0 otherwise as suggested by Kruger's (1993) model	- Have you ever been self-employed? - Have you ever tried to start your own business?
Entrepreneurship education (H4)	Used Wach and Wojciechowski (2016) EIQ as well as research findings of Lee, Chang, and Lim, (2005) and De Jorge-Moreno, Castillo, and Triguero (2012) Cronbach's alpha = 0.899	- I have participated in any academic course on a module on entrepreneurship and I acquired the basic knowledge. - I have participated in any entrepreneurial workshops, creativity labs, interpersonal trainings and I acquired the basic skills. - I often participate in guest lectures and speeches of businessmen, entrepreneurs, and economic policy-makers, which are organised at the campus and off-the-campus by business practitioners. - I have good working knowledge about the business environment, the economy as well as financial institutions and markets. - I have good working knowledge about entrepreneurial mechanisms and processes required in everyday business. - I have good working managerial skills, capabilities and competencies required for a good manager. - I have necessary abilities to be an entrepreneur. I have the skills and capabilities required to succeed as an entrepreneur.

Independent Variable	Method of Measurement	Survey Item(s)
Entrepreneurial self-efficacy (ESE) (H5)	We adopted the approach used by Chen, Green, and Crick (1998); Liñán and Chen (2009); and Wach and Wojciechowski (2016) to measure entrepreneurial self-efficacy. Students were asked to express their agreement or disagreement to the corresponding survey items using a 7-point Likert scale. Cronbach's alpha = 0.922	If I had my own business right now, in general, I am able to: - set and meet market share goals, - establish positioning in the market, - expand business. Innovation ESE - engage in new venturing and new ideas, - engage in new markets/products/technologies. Financial ESE - perform financial analysis, - develop financial systems and internal controls.
Locus of control (H6)	Based on the concept developed by Rotter (1996) and Mueller and Thomas' (2001) and Wach and Wojciechowski (2016) EIQ, students were asked to express their agreement or disagreement to the corresponding survey items using a 7-point Likert scale.	- When I make plans, I am almost certain to make them work. - Saving and careful investing is a key factor in becoming rich. - Becoming rich has little or nothing to do with chance. - Financial security is largely a matter of good fortune (reverse coded).
Desire to make an impact (H7)	Students were asked to express the importance of five broad reasons for choosing an entrepreneurial career using a 7-point Likert scale	Please indicate the importance of the variable 'to make an impact' in determining why would you consider becoming an entrepreneur.
Five broad reasons for business creation: - Wealth objective (H8) - Self-realisation objective (H9) - Authority objective (H10) - Autonomy objective (H11) - Challenge objective (H12)	Based on the studies by Benzing, Chu, and Kara (2009), Jayawarna, Rouse, and Kitching (2011), Giacomin *et al.* (2011), and Wach and Wojciechowski (2016) students were asked to rate the importance of the five broad reasons for choosing an entrepreneurial career using a 7-point Likert scale.	Being an entrepreneur will (would) enable me to: - obtain income to live on or to reach a higher level of income (wealth), - carry out the kind of job I really like (self-realisation), - achieve great social recognition and professional prestige (authority) - be independent as my own boss (autonomy), - put my own ideas into practice, compete with others (challenge).

Source: adopted theoretical models from the motivational literature.

Students completed the entire survey; however, the second stage of analysis was only performed on surveys where students stated they would consider becoming a social entrepreneur. In the second stage, we explored the dominant motivational reasons for starting a social enterprise once the intention to establish a social entrepreneurship exists. This approach aligns with content theories of motivation attempt to understand 'why' behaviour occurs and addresses the second research question:

RQ2: Once students consider starting a social enterprise, what motivational factors energize them most? What type of individual needs are they attempting to satisfy?

We wanted to analyse the influence of motives on students' social entrepreneurial behaviour and determine the most influential motivational factors. Following the methods of Barba-Sanchez and Ateienza-Sahuquillo (2012) and the Royal Bank of Canada's (2014) 'Meaningful business: Understanding social entrepreneurs' white paper, we divided 11 items into two main constructs linking them to the need-based theories of motivation as developed by content motivational theorists. The motivational constructs related to starting a social enterprise include personal and social achievement and professional independence. The personal and social achievement motivation for starting a social enterprise relates to the desire to contribute to the welfare of the community as well as adhering to ethical values and desiring to be creative and do something meaningful. The professional independence motivation for starting social enterprise relates to the desire to achieve professional admiration from others. See Table 2 below for a summary of the CTM section of the instrument. For the content theories of motivation, we used a paired samples t-test to analyse differences in mean scores for each motivation for social entrepreneurship.

Table 2. Content-based motivational variable definitions

Independent Variable	Method of Measurement	Survey Item(s)
Personal and Social Achievement motivation to start a social enterprise	Measured through a composite score of four survey items: 1, 2, 3, 4, 8, 10 and 11. Students chose the importance of each item in a 7 Likert scale with not important = 1 and very important = 7. Cronbach's alpha = 0.903	- Making the world a better place. - Improving the community that I live in. - Creating a positive environment for employees. - Meeting important social/environmental needs in the community. - Personal fulfilment. - Ethical motives and moral responsibility - Doing something meaningful / creating a new value.
Professional Independence Motivation to start a social enterprise	Measured through a composite score of four survey items: 5, 6, 7, and 9. Students chose the importance of each item in a 7 Likert scale with not important = 1 and very important = 7. Cronbach's alpha = 0.890	- Building a good reputation for my company in the community. - Because it's important for today's consumers. - Helping differentiate my company in a unique way. - Positioning my company as eco-friendly.

Source: adopted theoretical models from the motivational literature.

RESULTS AND DISCUSSION

The demographic characteristics of our sample (N = 364) follow: 45% of respondents were male and 55% were female; over 90% of respondents were between the ages of 20 to 25 years old. Over 90% of the respondents had completed between three to five years of college, and 202 respondents, nearly 55.5% indicated they would consider becoming a social entrepreneur.

Process Theories of Motivation

The first three hypotheses (perceived desirability, perceived feasibility, and entrepreneurial experience) were predicted to directly influence social entrepreneurship intention. H1 predicted a positive relationship between perceived desirability and social entrepreneurship intention. The results show there is a positive and significant correlation between perceived desirability and social entrepreneurship intention (p.e. = 0.32; p = 0.00). H2 predicted a positive relationship between perceived feasibility and social entrepreneurship intention. The results show that perceived feasibility is a positive and significant predictor of social entrepreneurship intention (p.e. = 0.36; p = 0.00). H3 predicted a positive relationship between entrepreneurial experience and social entrepreneurship intention. The results show that the relationship between entrepreneurship experience and social entrepreneurship intention is positive and significant (p.e. = 0.33; p = 0.07). Thus, we find support for H1, H2, and H3. (Figure 2 and Table 3).

The results of the process-based antecedents of perceived feasibility of social entrepreneurship intention follow: H4 predicted a positive relationship between entrepreneurship education and perceived feasibility. The results show a positive and significant correlation between entrepreneurship education and perceived feasibility (p.e. = 0.24; p = 0.00). H5 predicted a positive relationship between entrepreneurial self-efficacy and perceived feasibility. The results show a positive and significant correlation between entrepreneurial self-efficacy and perceived feasibility (p.e. = 0.11; p = 0.10). H6 predicted a positive relationship between internal locus of control and perceived feasibility. The results show a positive and significant correlation between internal locus of control and perceived feasibility (p.e. = 0.26; p = 0.00). Thus, we find support for H4, H5, and H6.

The results of the process-based antecedents of perceived desirability of social entrepreneurship follow: H7 predicted a positive relationship between a student's desire to make an impact and perceived desirability. The results show a positive and significant correlation between a student's motivation to make an impact and per-ceived desirability (p.e. = 0.08; p = 0.03). H8 predicted a positive relationship be-tween the wealth objective and perceived desirability. Results show a negative and insignificant correlation between the wealth objective and perceived desirability (p.e. = -0.05; p = 0.3). H9 predicted a positive relationship between self-realisation and perceived desirabil-ity. The results show a positive and significant correlation between self-realisation and perceived desirability (p.e. = 0.21; p=0.07). H10 predicted a positive relationship between a student's autonomy objective and perceived desirability. The results show a negative and insignificant correlation between authority and perceived desirability (p.e. = -0.06; p = 0.23). H11 predicted a positive relationship between a student's au-tonomy objective and perceived desirability. The results show a positive and signifi-cant correlation between autonomy and per-ceived desirability (p.e. = 0.15; p = 0.01). H12 predicted a positive relationship between a student's challenge objective and perceived desirability. The results show an insignificant effect between challenge and perceived desirability. Thus, we find support for H7, H9, and H11, while we fail to find support for H8, H10, and H12. (Figure 2 and Table 3).
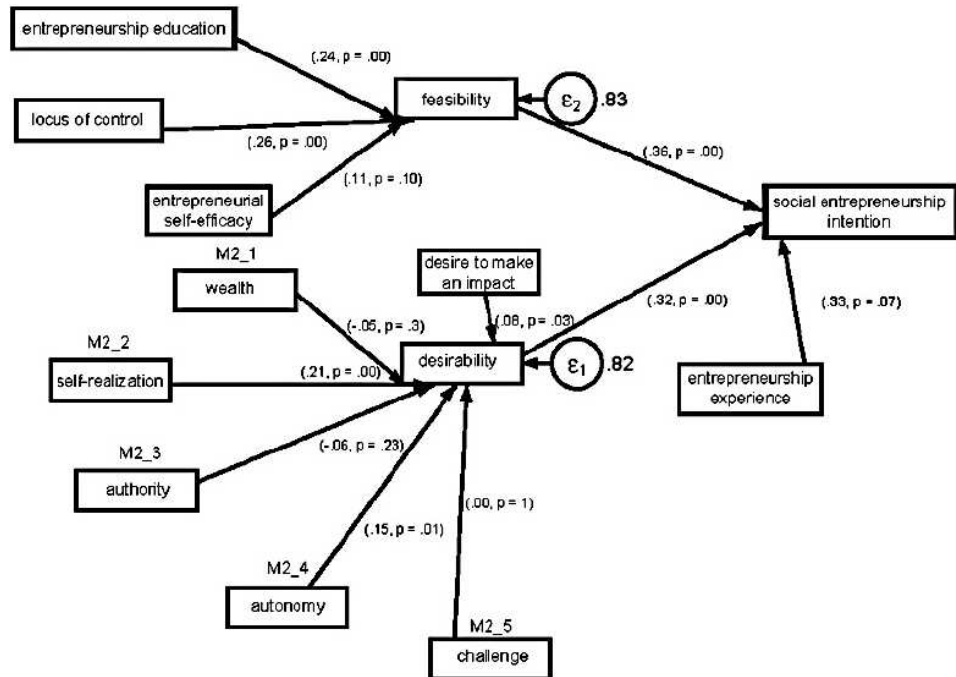
**Figure 2. Outcomes of the process-based motivational intention model to create
a social enterprise based on perceived desirability and feasibility**
Source: own calculations based in STATA.

Table 3. Summary of results of path analysis for process-based motivations

Results of Path Analysis	Parameter Estimate (p.e.)
Perceived Desirability -> SEI (H1)	0.32***
Perceived Feasibility -> SEI (H2)	0.36***
Entrepreneurship Experience -> SEI (H3)	0.33***
Entrepreneurship Education -> Perceived Feasibility (H4)	0.24***
Entrepreneurial Self-Efficacy -> Perceived Feasibility (H5)	0.26***
Locus of Control -> Perceived Feasibility (H6)	0.11+
Desire to Make an Impact -> Perceived Desirability (H7)	0.08*
Wealth Objective -> Perceived Desirability (H8)	-0.05
Self-Realisation Objective -> Perceived Desirability (H9)	0.21***
Authority Objective -> Perceived Desirability (H10)	-0.06
Autonomy Objective -> Perceived Desirability (H11)	0.15**
Challenge Objective -> Perceived Desirability (H12)	0.00

*** p-value < 0.001; ** p-value < 0.01; * p-value < 0.05; + p-value < 0.10
Source: own calculations in STATA.

The results confirm the applicability of commercial entrepreneurial models to the social entrepreneurial domain in determining behavioural intention as both perceived feasibility and perceived desirability displayed statistically highly significant

results. As noted by Krueger and Brazeal (1994), perceived feasibility has influential primacy over intention; likewise, perceived feasibility shows higher results over perceived desirability in this study. Perceived feasibility also appears to be the more stable construct between the fields of commercial and social entrepreneurship as antecedents of entrepreneurial education, entrepreneurial self-efficacy, and internal locus of control tend to be used in most models with results showing positive and significant correlation. As Mair and Noboa's (2003) SEI model suggests, social entrepreneurs (or in our study's case) pre-social entrepreneurs face perceived feasibility needs similar to commercial entrepreneurs yet are driven by a different suite of perceived desires. Our model suggests that students are motivated most by a quest for self-realisation followed by autonomy and a desire to make an impact. Based on the cultural context of our study, situated in the economically and entrepreneurially robust Bay Area, CA, we hypothesised that students would be motivated by a wealth and authority objective, but, these objectives had a negative (yet insignificant) relationship to the perceived desirability of social entrepreneurship.

Content Theories of Motivation

The second stage of the study analysed the surveys of students who stated they would consider becoming a social entrepreneur (n = 202). The mean values and standard deviation for items that composed the motivational constructs of personal and social achievement and professional independence are shown in Table 4.

Table 4. Mean and standard deviation of the 11 content-based motivational needs

No.	Item	Mean	Std. Dev.
1.	Personal fulfilment	5.653	1.103
2.	Ethical motives and moral responsibility	5.541	1.095
3.	Making the world a better place	6.034	1.099
4.	Improving the community that I live in	5.736	0.994
5.	Building a good reputation for my company in the community	5.756	1.212
6.	Because it's important for today's consumers	5.578	1.392
7.	Helping differentiate my company in a unique way	5.848	1.205
8.	Creating a positive environment for employees	5.960	1.051
9.	Positioning my company as eco-friendly	5.573	1.186
10.	Meeting important social/ environmental needs in the community	5.760	1.078
11.	Doing something meaningful / creating a new value	5.790	1.089

Source: own calculations in STATA.

To analyse the influence of these motives on students' social entrepreneurial behaviour and determine the most influential motivational factors, we performed a principal component analysis on the 11 questions adopted from the Royal Bank of Canada's (2014) white paper. The results of this analysis are reported in Table 5.

Only two factor components with eigenvalues above 1 were extracted. These two components explain 70% of the variance. Values for the Kaiser-Meyer-Olkin (KMO) test for sampling adequacy were 0.868 and Bartlett's Test of Sphericity was statistically significant (χ^2 = 1,664; p $\leq$ 0.001).

Table 5. Principal-component analysis (varimax rotation) factor loadings for content-based motivations

Item	Personal and Social Achievement	Professional Independence
1.	0.663	
2.	0.813	
3.	0.553	
4.	0.834	
5.		0.739
6.		0.891
7.		0.917
8.	0.591	
9.		0.672
10.	0.698	
11.	0.880	

Source: own calculations in STATA.

In the literature review, we identified two main sources of motivation for entrepreneurs: the need for achievement and the need for independence. As shown by Germak and Robinson (2014), social entrepreneurs tend to need achievement as a motivating factor in order to address and overcome the severity of social ills. Likewise, the need for professional independence would seem an inherent attribute of social entrepreneurs venturing to disrupt the status quo of market disequilibrium. Two other studies perform principal component analyses of the needs driving entrepreneurial motivation. Stefanovic, Prokic and Rankovič (2010) identify business achievement and independence as the two main needs motivating entrepreneurship while Barba-Sanchez and Atienza-Sahuquillo (2012) identify the need for success and self-realisation (which can be categorised as the need for achievement) as well as the need for professional autonomy as the primary needs motivating entrepreneurship. Autio, Keeley, Klofsten and Ulfstedt's (1997) study of entrepreneurial intention also confirmed the need for achievement and autonomy as important influencers for students. In line with our synthesis of the literature on content-based motivations for becoming a social entrepreneur, the two motivational needs which emerge in our principal component analysis can be classified as the need for achievement and the need for independence. When starting a social-mission enterprise, entrepreneurs are driven by:

1. *Social and Personal Achievement motivation* for starting a social enterprise is understood as a desire to use their personal capabilities to achieve social change and contribute to the welfare of the community;
2. *Professional Independence Motivation* for using a business model focus on social issues which can give them a competitive advantage over other entrepreneurs as well as established businesses.

CONCLUSIONS

This study aimed to investigate the predictors of social entrepreneurial intentions as well as the main motivational drivers among business students at a California, Bay Area public uni-versity in the US. The theoretical foundation was based on Ajzen's (1991) TPB and

Shapero and Socol's (1982) EEM with additional material by Krueger (1993) and Krueger, Reilly and Carsrud (2000). Our model complements existing models by further confirming the robustness of the TPB and EEM as applied to social entrepreneurship as well as confirming entrepreneurial experience (Ayob *et al*., 2013; Ernst, 2011; Hockerts, 2017), entrepreneurial education (Ayob *et al*., 2013; Politis *et al*., 2016), and entrepreneurial self-efficacy (Urban & Kujinga, 2017) as important antecedents to social entrepreneurial intention. We extended the existing literature by adding contextually appropriate antecedents of motivation with results showing self-realisation and autonomy as significant process-based motivators to SEI in the Northern Californian context. We also show that the need for achievement and the need for independence relates to social entrepreneurial intention formation just as it does with its commercial counterpart.

Implications and Recommendations for Practice

Findings surfaced that are important for both social entrepreneurship literature and universities. A meta-analysis empirically shows that intentions predict behaviour but also that motives informed by attitudes, beliefs, personality traits, and habits predict intentions (Kim & Hunter, 1993). This empirical study has added to the social entrepreneurship intention theory by testing motives derived from human motivational theory as antecedents to the perceptions of intent with findings contributing self-realisation and autonomy as important motives driving SEI.

The findings allow both researchers and educators to identify determinants of social entrepreneurial intention and motivational factors among business students who will one day become social business leaders and are expected to contribute effectively to sustainable economic and social development. It is important to understand students' motivations when designing entrepreneurial programmes that best cater to students' needs and expectations. Likewise, it is necessary to effectively communicate the advantages of being a social entrepreneur. Our findings suggest that universities would best deliver their social entrepreneurship goals by focussing on activities that cultivate the feasibility perception and desirability perception among students in order to promote more social entrepreneurial start-ups. Findings also show that it is important to expose students to the feasibility of social enterprises through different initiatives. The instrument's very practical feasibility items suggest that confidence in managerial capabilities relates to forming social entrepreneurial intention and should be instructive to educators to provide practical, experiential student learning opportunities such as service-learning projects in partnership with need-based programmes. While perceived feasibility can be addressed by building traditional managerial-skill sets through hands-on experience, perceived desirability appears more subjective and relative to the cultural context. For our study, students' social entrepreneurial intent formation was motivated most by the need for self-realisation and autonomy, which coincides with the content-theory of motivation results showing independence as a motivating factor. The need for independence as well as the need for achievement could be nurtured through business university-incubator labs inclusive of social mission ventures. These practical recommendations could be a promising approach since both Millennial and Generation Z students want to make a difference and make an impact to 'do well by doing good.'

Research Limitations and Suggestions for Future Research

The findings are limited to students attending a university business department in Northern California's Bay Area. Intention formation has shown to be context dependent (Busenitz, Gomez, & Spencer, 2000; Robinson, 2006), and our study is uniquely situated in an area renowned for having a robust entrepreneurial culture and start-up ecosystem. The research findings may not represent the whole population of undergraduate students in the US. A cross-section of US business students might achieve a more general characterisation of US students' social entrepreneurial intention formation. While we held close allegiance to Krueger's model and instrument which used 'Do you think you will ever start a business?' as a dichotomous variable compared to our model's use of 'Would you consider becoming a social entrepreneur?,' it is possible that 'consider' might not accurately operationalise the construct of intention limiting the validity of its predictive power. Other models have used the term 'consider' to capture 'intention' but included a scale or index of questions to measure intent (Davidsson, 1995; Liñán & Chen, 2007; Veciana, Aponte, & Urbano, 2005). Follow up studies could also benefit from establishing time boundaries around the dependent variable as in Krueger *et al.'s* (2000) study that bounded intent through the instrument 'Estimate the probability you'll start your own business in the next five years?' Setting a short-term or long-term time boundary would suggest a more realistic representation of intent (Reitan, 1996). Also, not all process-based variables of motivation are exclusive to social entrepreneurship. Some of the variables such as 'wealth objective' might represent motivations common to both social entrepreneurs as well as commercial entrepreneurs. However, the process-based variables of motivation helped identify students with social entrepreneurial intent who were then analysed for content-based theories of motivation. Lastly, the survey design's use of anonymity unfortunately precludes researchers from following up with students and conducting a longitudinal study with students who confirmed social entrepreneurship intentions. A longitudinal study would have allowed future access to students and confirmation of their actual behaviours providing assessment of the model's robustness and predictive power.

For future research, a cross-cultural research between university social entrepreneurship programmes might produce the most pertinent information. For instance, Rantanen, Pawlak and Tokko (2015) compared Finnish and Polish students' entrepreneurial intentions with results showing that social-political factors between the state and individuals affect intention formation. It would be interesting to extend this study and compare the social entrepreneurial motivation in a larger cross-cultural context overtime to gain additional insights regarding the importance of cultural differences when developing entrepreneurial programmes. Understanding economic and socio-political differences in the formation of socially-driven businesses would produce the most useful results for future social entrepreneurs in an increasingly globalised economy and society.

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The Evaluation of CSR and Social Value Practices Among UK Commercial and Social Enterprises

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A B S T R A C T
Objective: The purpose of this article is to evaluate the scope of Corporate Social Responsibility (CSR) and 'Social Value Initiatives' (SVIs) among corporations. Nowadays, CSR provides firms with an opportunity to provide community social need through discretionary corporate practices. This article contributes to knowledge on how firms approach social and environmental sustainability while maintaining economic responsibility.
Research Design & Methods: This article adopts analysis based on secondary data from UK based companies. Fifty companies' websites and policy documents (30 commercial enterprises and 20 social enterprises) were researched to identify the patterns of practices of SVIs and factors that influence the practices among companies.
Findings: The findings suggest that both social and commercial enterprises focus on the adoption of the 'CSR' practices based on the 'Triple Bottom Line' (TBL) as defined in the 'Elkington, 1997 framework' of economic, environmental and social sustainability. The difference is that while the 'SVIs' of commercial enterprises develop as an operational strategy at the later stages of the business, the 'SVIs' of social enterprises are embedded during the enterprise creation stage.
Implications & Recommendations: Based on the findings, this article develops a conceptual 'Social Value Initiatives' framework which forms the domain of social value practices. We suggest that future studies should focus on adopting qualitative-oriented primary research to explore CSR approaches, which will capture the views of management, customers, employees and shareholders.
Contribution & Value Added: Despite its limitations, this article contributes to the knowledge on CSR and social value practices among social and commercial enterprises.

INTRODUCTION

This article explores the scope of social value practices among commercial and social enterprises. To be profitable, businesses create many positive externalities, such as providing goods and services, which people want, providing employment, paying taxes and contributing to economic growth. Some scholars (e.g., Friedman, 1970) have argued that pursuing economic value is the sole aim of most firms given that commitment to solving social problems at the expense of profitability could undermine an organisation's own ability to create positive externalities. On the other hand, some scholars view corporations as 'externalising machines' and the cause of social and environmental problems. In this view, corporations are institutions which can only make profit because they create negative externalities (Porter & Van der Linde, 1995; Speth, 2008) for which they do not have to pay, such as air and sea pollution. Puma – the sportswear giant – produced an environmental profit and loss account in 2010, which showed the extent of their negative environmental externalities. Puma's independently valued financial account shows that while the direct ecological impact of its operations equates to 6.2m GBP and an additional 74.7m GBP falls upon its entire supply chain (The Guardian, 2011).

An emerging views in the business strategy literature focuses on exploring social entrepreneurship (Zahra, Gedajlovic, Neubaum, & Shulman, 2009; Chell, 2007) and how firms approach the creation of economic, environmental and social values (Dembek, Singh, & Bhakoo, 2016; Porter & Kramer, 2011; van der Have & Rubalcaba, 2016). Arguably, the overall aim of most businesses is to maximise profit and shareholder value. The Academy of Management (2014) holds that, although adding shareholder value might be seen as part of the purpose of most businesses, shareholder value might be better positioned as a legitimate expectation of one segment of society; the purpose from a broader social perspective would also include broader goals, such as 'making a difference,' or 'improving lives,' or 'reducing harm.' An example of a company already adopting this strategy as its plan is Unilever. Unilever Sustainable Living Plan (SLP), strategic goal is to double the volume of its businesses but at the same time reduce its environmental footprint. Unilever SLP launched in 2010 have three big goals, which are: improving health and wellbeing, reducing environmental impact and enhancing livelihoods (Finch, 2010).

There are many benefits associated with companies creating shared value, which focuses on solving social problems and is not necessary at odds with profit maximisation. First, the possibility of creating shared value represents significant business opportunities for many corporations. Many multinationals have restricted strategies of economic value, which blinds them to the opportunities to create economic value through solving social problems (Porter & Kramer, 2011). This is what corporations such as Tesla are doing – having driven radical improvements in electric vehicles and revolutionised the automotive industry. The second opportunity is for corporations to reconfigure their value chain system (such as production, operations and supply chain). The third opportunity leads to creation of local clusters which support the local communities in which the corporation operates. The creation of such clusters could open-up opportunities for firms to create economic value for themselves and others.

In the last two decades, the mind-set of business owners and managers has changed, and many corporations now view social and environmental purposes as more important

than previous generations did. Nowadays, managers adopt CSR to create economic value through solving social and environmental problems (Porter & Kramer, 2011). Therefore, for organisations to be truly sustainable they must consider three elements of sustainability (economic, social and environmental responsibilities). Nowadays, businesses seem to pursue these goals, although at different levels. The objectives of commercial and social enterprises tend to converge. The difference is that just like commercial enterprises, social enterprises earn their money through trade in the marketplace, while pursuing social and environmental goals as the major aims of business.

SVIs is the process of disseminating social innovation practices to promote change in organisations. These changes in organisations could be in response to legal regulations or voluntary obligations. The reasons companies engage in environmental initiatives can be due to legal regulations, economic incentives or voluntary (Huang & Chen, 2015). In business operations, it appears that social sustainability is always a voluntary action, which is not dictated by legislation. Specifically, the philanthropic obligation mainly entails organisational engagement in business and non-business-related 'CSR' activities as long as the quality of life is improved (Ehie, 2016). Henriques and Richardson (2013) posit that social sustainability is achieved when the employees' motivation, morale and commitment levels increase. This is in addition to the attraction and retention of customers and employees.

The adoption of social value in policy domain has fuelled a rapidly expanding scholarly literature (van der Have & Rubalcaba, 2016). Interest in social enterprise by practitioners, policymakers and academics has grown exponentially over the last decade (GEM, 2015). However, academic literature in the social enterprise and social entrepreneurship domain has become characterised by conceptual ambiguity and a diversity of definitions and research settings (van der Have & Rubalcaba, 2016; Cukier, Trenholm, Carl, & Gekas, 2011; Hoogendoon & Hartog, 2011; Mair & Marti, 2006). Furthermore, the Triple Bottom Line (TBL) framework has its complications related primarily to its measurement, as there is no common unit of measurement. In other words, environmental and social success or failure cannot be measured by monetary terms as the economic success. Measuring social sustainability performance against the TBL is therefore subjective. Nonetheless, TBL still provides a useful method of evaluating performance, and many companies have chosen to adopt it as a business strategy.

This article contributes to knowledge on some substantive questions of relevance to our understanding of social values, such as, how do commercial and social enterprises view social sustainability. What processes contribute to SVIs? What types of SVIs take place in social and commercial enterprises? By exploring these questions and more, this article contributes to filling the gap in theoretical literature on social value practices and processes. Scholarly articles and academic papers were used to grasp a conceptual and contextual exploration of the contemporary issue within business sustainability framework.

This article uses secondary information from desk research to undertake a qualitative analysis. The secondary data present a unique opportunity to compare many companies, which undertake SVI and the processes for pursuing social sustainability. This article is structured as follows: First a review of literature is undertaken to explore conceptual frameworks related to CSR, Sustainability and Stakeholder theory. This is followed by the description of the research methods. Finally, the last two sections present the analysis and discussion, followed by conclusion.

LITERATURE REVIEW AND THEORY DEVELOPMENT

Arguably, the two main CSR dimensions are 'Profit Maximisation' and 'Stakeholder Theory' coined by Friedman (1970), and expanded upon by Edward R. Freeman (1984, 1999). In this regard, CSR requires a business serving the needs of its customers and other stakeholders in a way that is environmentally and socially responsible and at the same time economically responsible (Herrera, 2011; Mujtaba & Cavico, 2013). For example, in the airline industry, the 'green' image of airlines could influence customers' perceptions and therefore affect airline choice (Hagmann *et al.*, 2015). Hence, from a corporate perspective, businesses are increasingly adopting CSR as one of their strategies and this takes many different forms (e.g., Becker-Olsen, Cudmore, & Hill, 2006).

CSR provides firms with an opportunity to maintain competitive advantage (Herrera, 2011, 2015; Hinson *et al.*, 2010). In addition, CSR provides the commitment towards improvising community social need through discretionary corporate practices and deployment of business resources. This is how SVIs and social responsibilities develop among businesses (Hansmann, Mieg, & Frischknecht, 2012; Abdel-Raheem & Ramsbottom, 2016). Nonetheless, CSR is a corporate commitment to ensure that businesses meet the economic, environmental and social expectations of their stakeholders (Kim, 2017).

In a study commissioned by the United Nations, the Brundtland Commission (1987) identified sustainable development as meeting the needs of today without comprising the abilities of future generations to also meet their needs (Greblikaite, Sroka, & Gerulaitiene, 2016). From this definition, three main dimensions of sustainability may be derived – the economic, social and environmental (Baumgartner, 2014). These key dimensions are generally referred to as CSR or TBL (Frynas, 2015; Gimenez, Sierra, & Rodon, 2012; Harjoto, Laksmana, & Lee, 2015). Nowadays, both commercial and social enterprises focus on accomplishing and fulfilling these three dimensions of CSR as part of business strategy.

The Whistler 2020 (Canada) sustainable community movement described sustainability as a minimum condition for a flourishing planet in the long term. Sustainability is a segment of CSR, which has become significant in recent years (Chang, Zuo, Zhao, Zillante, Gan, & Soebarto, 2017). The theory of sustainable development (SD) requires organisations to be economically successful, environmental, moral, and retain social values (Elkington, 1997). Elkington's (1998) TBL framework comprises social, environmental and economic principles that businesses could follow. TBL framework has been transformed into several models. One such a model is the '3-Legged Stool Model,' which explains the three elements, which are important for a company to operate sustainably. This model has been employed by several authors to describe the three main elements of business sustainability as environmental (e.g., Keitumetse, 2013), economic (e.g., Jacques & Kepos, 2010) and social (e.g., Klein, 2010).

Another such a model is 'Carroll's four-part model', which encompasses the economic, legal, ethical, and discretionary/philanthropic expectations that society has of organisations at a given point in time (Carroll, 1979). Carroll's model was originally created to clarify many definitional strands, which appear within CSR literature. Another is the 'Nested Dependencies Model'. This model is used to show the dependency of economy, society and environment on each other and on companies (Sarcina, Consoli, Tomassini, & Cavicchiolo, 2011). A further type of model is the '3 Overlapping Circles Model' used to explain the sustainability of companies in the intersection of economy, society and environment (Yigitcanlar & Dur,

2010). These frameworks involve balancing and integrating the three elements of sustainability (Lozanzo, 2008, 2012; Sakalauskas, 2010). All these models point to the environmental, social and economic obligations, which all corporations should provide.

Why has the sustainability concept moved to the centre stage over the last two decades? The main reason is that in the past, structures and policies of organisations were founded on the profit-making motive being above all other considerations. The campaign to tackle some of the most pressing problems of our times (such as environmental pollution, climate change, chronic poverty and widening inequality) led to the concept of CSR framework. Nowadays, businesses can analyse their sustainability levels and consider ways of improving their operations. Shaukat, Qiu, and Trojanowski, (2016) believe that CSR should be adopted as a comprehensive strategy. It is widely believed that companies that use the concept of sustainability will gain long-term financial benefits, exploit environmental efficiencies and meet stakeholder requirements. Consequently, a significant number of Fortune 500 corporations, including Nike, Coca Cola, Dell Computer and Starbucks Coffee are embracing sustainability as a strategy in the form of CSR (Kibert, Thiele, Peterson, & Monroe, 2012).

As a strategy, many businesses develop their environmental, social and economic sustainability to attract new customers, retain their customer base and obey the law. For example, a study by Allen and Root (2004) found at least two-thirds of 25.000 consumers in the United States, Canada, and Western Europe form impressions based partly on a company's ethics, environmental impact and social responsibility. Therefore, companies are adapting the concept of sustainability to expand the measure of success for their operations from the 'financial bottom-line' to a 'triple bottom line' that adds social and environmental performance to economic performance (Kibert *et al*., 2012).

Contrary to Friedman's 'Profit Maximisation theory' (1970), Freeman (1994) argues that social performance is required to merit business legitimacy. Freeman argues that managers have a responsibility to all stakeholders in the organisation and not just shareholders. The arguments put forward by the stakeholder theory is that an organisation's success depends on the extent to which it manages relations not only between groups such as financers and shareholders but also between customers, employees and the wider public interest. The main essence of the theory is that profitability is not the fundamental driver of what organisations do (Freeman, Wicks, & Parmar, 2004). However, the theory has encountered scepticism (Morsing, 2003).

The definition of stakeholder by Freeman and Reed (1984, p. 91) as 'any group or individual who can affect or be affected by the achievement of the organisation's objectives' has been agreed upon by several scholars (e.g., Clement, 2005; Boonstra, 2006; Rasche & Esser, 2006; Kolk & Pinkse, 2006; Abd Karim, Rahman, Berawi, & Jaapar, 2007; Mitchell, Agle, & Wood, 1997). Herrera (2016) argues that SVIs develop through stakeholder engagement that reflects the extent of relationships and collaboration, which addresses the systemic challenges that face businesses and the society. Furthermore, Howaldt and Schwarz's (2010) theorize that social changes develop as outcomes of societal processes and changing structures. The process of social value creation is believed to be dependent on transformative leaders (Felício, Gonçalves, & da Conceição Gonçalves, 2013; García-Morales, Jiménez-Barrionuevo, & Gutiérrez-Gutiérrez 2012; Herrera, 2016). Therefore, if society is to achieve inclusive growth, it will require collaborative action and transformative leadership from multiple stakeholders (Herrera, 2015; UNDP, 2013; Clement, 2005). Herrera (2016, p. 5243) referred to the catalytic, collaborative leadership in

bridging societal divides as a process that fosters space for inclusive partnership to facilitate conflict resolution and co-create solutions to challenges. Co-creative emphasises the importance of working together to diagnose, design solution, and implement solutions.

Many organisations go beyond what is expected of them to ensure they exceed stakeholders' needs in order to improve their brand and to maintain competitive advantage. CSR demands that businesses act responsibly and ethically (Lawrence & Weber 2017). The importance of businesses behaving ethically in the forms of economic, social and environmental initiatives is that it does potentially result in higher customer satisfaction and better representation for the business. Social values creation has become an important element of CSR framework in modern organisations. Social value ideas come from many sources, e.g. business owners, business executives, employees, citizens, service users, communities, social activists, etc.

While it is evident that CSR is now an instrumental component when evaluating an organisation, stakeholders adopt this analysis as well. If the stakeholders do not believe the practices within an organisation to be legitimate, it can have an adverse effect on the organisation. It has been stated that if implemented properly, CSR can enhance a consumer's motivation to purchase (Becker-Olsen *et al.,* 2006), as it acts as a powerful marketing tool (Brønn & Vrioni, 2001) which in turn can affect employee morale. Therefore, CSR promotes long-term profits, stakeholder relationships and business reputations (Lawrence & Weber, 2017; Li, Chen, & Ma, 2016), as well as protecting corporations from causing negative impacts to stakeholders. For example, in 2016, Volkswagen settled in federal court in San Francisco to fix or buy back nearly 500.000 diesel cars in the United States which are equipped with illegal emissions software (over emission scandal). The cost of buying back all the cars in the United States was estimated at 7 billion USD and there are many more faulty cars in Europe and elsewhere in the world still to be recalled (The New York Times, 2016).

Scholarly interest in social enterprise in the last decade has primarily included practical issues from descriptive case studies together with the adaptation of concepts, definitions, research settings and theoretical boundaries. As a result, the purpose, structure and types of organisations that exist within the social enterprise and social entrepreneurship has been well researched (Doherty, Haugh, & Lyon, 2014). However, a universal typology and definition remains frustratingly elusive (Jackson & Jackson, 2014). Despite scholarly efforts to define and clarify its meaning, the concept of social enterprise is still considered ambiguous, and the state of knowledge continues to be fragmented (van der Have & Rubalcaba, 2016). This has led to a present lack of clarity or overview of what constitutes a social enterprise or a non-social enterprise.

RESEARCH METHODOLOGY

This study is based on a pragmatic philosophical view as described by Bryman (2008). Given that the aim of the study is to examine the social value practices of companies, the study focused on obtaining specific and in-depth understanding of the concept of CSR frameworks and their practices. This led us to adopt the inductive approach as described by many authors (e.g., Berg, 2009; Saunders, Lewis, & Thornhill, 2009). The inductive process began with an extensive review of the literature to understand the concept of CSR and to identify the patterns of practices of SVIs and factors that influence the practices among companies.

This article employed secondary data sourced from official organisation websites and information from unrelated authors. It could be argued that relying solely on company's websites could potentially bring bias to the analysis. Despite its limitations, this method presents an opportunity to undertake an analysis of a large number of companies. A qualitative analysis was undertaken to compare companies that undertake SVIs and the processes for pursuing social sustainability. Fifty UK based companies' websites and policy documents (30 commercial enterprises and 20 social enterprises) were researched. The analysis focused on examining CSR and social value practices among social enterprises as compared with commercial enterprises. It theorizes and develops social values system, processes and their motivations among commercial and social corporations.

RESULTS AND DISCUSSION

The Social Value Initiatives and Practices

The analysis into companies CSR initiatives and practices revealed some similarities and differences. Both social and commercial enterprises adopt the CSR concepts of economic, social and environmental sustainability as business strategy. Whereas, SVIs strategy of nearly all the social enterprises analysed (94.4%) developed at the early stage of the formation of the companies, CSR strategy of most commercial organisations (68.0%) was incorporated into the management as operational strategy at later stages of the company's operations (Table 1).

Findings suggest that the long-term goals of social enterprises aimed to make profit as an element of economic sustainability, just like the commercial enterprises. Some studies have shown that companies are adapting the sustainability strategies that adds social and environmental performance to economic performance (Kibert *et al*., 2012). It is clear from the information gathered from social and commercial enterprises that economic sustainability in the former is driven by a desire to make profit to pursue social needs and problems (51%), while in the later, it is driven by a desire to maintain competitive advantage (56%) and maximise profit for shareholders' interest (65%), as shown in Table 1.

Table 1. The SVIs and practices

Social value practices	Percentage of social enterprises	Percentage of commercial enterprises
Developed at the early stage of company	94.4	8.2
Incorporated later into the management	5.6	68.0
Broadly defined short and long-term CSR	86.4	47.2
State long-term social sustainability strategy	85.0	52.0
Desire to maximize profit to meet social need	51.0	4.1
Desire to meet environmental needed	73.3	45.0
Desire to maximize profit for shareholders	18.0	65.1
Desire to strengthen the customers' awareness on social and environment issues	89.2	42.0
Targeted at community needs	78.0	15.2
As competitive advantage strategy	38.0	56.0
CSR activities in annual reports	65.4	30.1

Source: authors' calculations based on secondary data.

A high proportion of social and commercial enterprises adopt SVIs as a strategy aimed at meeting environmental needs (73.3% and 45% respectively). Therefore, CSR strategies of both social and commercial enterprises focus on the adoption of the CSR based on the TBL (as defined in the 'Elkington, 1997 framework' of economic, environmental and social values). In a similar trend, about 89.2% of social enterprises and 42% of commercial enterprises have CSR as an integrated element to strengthen customers' awareness of social and environment issues. In this regard, there are more social enterprises that engage in creating awareness on societal social and environmental problems than commercial enterprises.

As shown in Table 1, about 30.1% of the commercial organisations communicate their CSR/Sustainability-related activities in their annual reports as against 65.4% of social enterprises. Within the social enterprises, more than 50% communicate their CSR practices through four modes of communication – webpages, press releases, annual reports, and policy statements. Several authors suggest that businesses aim to promote environmental awareness among customers based on public pressure regarding environmental problems (Bratt, Hallstedt, Robèrt, Broman, & Oldmark, 2011; Buckley, 2002). Therefore, environmentally sustainable practices could become very important to companies given that it can potentially improve company's brand and social recognition. For example, Flybe airline has integrated Eco-labels into its online booking process and has displayed them on their aircrafts since 2007 (Flybe, 2015). Such a scheme develops environmental awareness among customers when making choices. Furthermore, it encourages airlines to improve their environmental performance, which may lead to more environmental competition within the industry (Baumeister & Onkila, 2016). Some of the social value activities engaged by commercial organisations analysed were fair trade, paying premium price to suppliers or producers, donations to charity, social events sponsorship, scholarships, building health clinics or schools, fight against child labour, labour exploitation, etc.

Social enterprises promote social and environmental initiatives as both short-term and long-term goals aimed at addressing social and environmental issues within their communities. About 86.4% of social enterprises have well defined short and long-term goals relating to social and environmental sustainability with the aim of operating ethically as sustainable strategies (as shown in Table 1). On the contrary, only about 47.2% of commercial organisations published their short and long-term sustainability strategic goals. Some of the short and long-term goals of social enterprises were employment generation, housing needs, adult and social care, education, animal welfare, water conservation, natural conservation, etc. A third of the social enterprises focus on providing their customers with assurances in terms of the quality, diversity and eco-friendliness of their product range. More than half of the social organisations embarked on initiatives such as donations and sponsorships to pursue environmentally and socially related needs, hosting school trips to educate future generations, embarking on sustainability promotion and visitor awareness through displays, activities and experiences.

Identifying Social Value Initiatives and Processes

This article focuses on contextualising the motives and processes of SVIs among organisations. The findings show that the process of SVI in social enterprises are slightly different from those of commercial enterprises as shown in Figures 1 and 2. From the analysis, many SVIs from social enterprises point towards a new kind of economy that focuses on maximising community benefits and eco-friendly products and services. About two-third of the social enterprises

describe their mission as promoting a 'social economy' policy which aims to maximise community benefits and minimise natural resource exploitation to meet stakeholders' expectations. Therefore, SVIs by social enterprises represent strategic approach where community social and environmental issues are considered highest among other business interests. The process whereby SVIs of social enterprises develop is represented in Figure 1. It reveals that SVIs among were aimed at maximising community benefits and eco-friendly products and services and minimising exploitation of natural resources and supernormal profits.
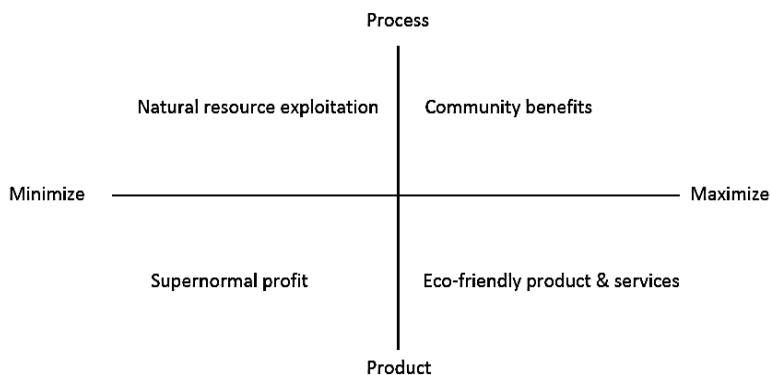
Figure 1. The Social Value Initiatives and Processes among social enterprises
Source: author's framework based on findings.

On the contrary, the evaluation of commercial organisations shows that many SVIs develop a strategic goal aimed at maximising natural resources and supernormal profit to increase shareholders value. Unlike social enterprises, nearly two-thirds of the commercial organisations focus their strategy on maximising natural resources, wealth and human resources for their shareholders' interest (Figure 2). About two-thirds of the firms stated in their policy documents that they recognise the need to incorporate environmental and social initiatives to achieve the goal of maximising natural resource and wealth generation. More than half of the organisations specifically want to achieve this target through voluntary initiatives, avoiding negative publicity, reducing pollution and waste in the production, marketing and supply chain.

Overall, the analysis showed that in both social and commercial organisations, the rise in public and stakeholders' interest in environmental and social issues has coincided with a marked turn towards the adaptation of CSR as a strategic tool. Evidently, sustainability approaches develop as operational strategy in the later stages in most of the commercial firms (68%) as identified in Table 1. Therefore, SVIs of commercial enterprises develop as an innovative strategy aimed at developing social and environmental awareness among customers, maintaining growth, competitive advantage and shareholders' value as shown in Figure 2.

Our analysis aligns with the literature on 'Profit Maximization' and 'Stakeholder Theory' as explored by several authors (e.g., Friedman, 1970; Freeman 1994; Mitchell *et al*., 1997; Freeman *et al.,* 2004; Smudde & Courtright, 2011; Frederick, 2016). It is obvious that CSR starts with a central idea about an environmental or social issue. However, the idea itself is often prompted by public and stakeholder's interest or new evidence which brings to light an environmental or social need or injustice. Organisations develop their CSR using

feedback systems to identify possible problems. In many cases, research, mapping and data collection are used to uncover problems, as a first step to identify the sustainability approaches to follow or initiate as a strategy.
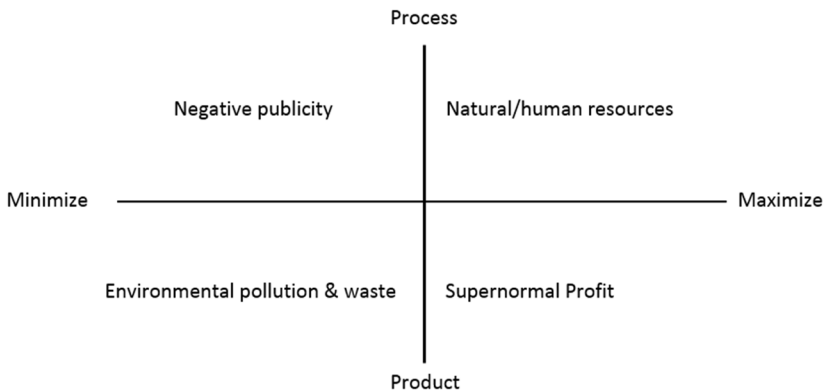
Figure 2. The Social Value Initiatives and Processes among commercial enterprises
Source: author's framework based on findings.

From the analysis, it is obvious that SVIs develop from both social and commercial enterprises as a business strategy. However, there are differences in the stages of its introduction, implementation and the strategic objectives. Whereas 'SVIs' develop during the later stages in as many as 68% of commercial enterprises as part of management operational strategy, it assumes a foundation strategy in about 94.4% of social enterprises at the conceptualisation of business operations.

CONCLUSIONS

Our analysis revealed some similarities and differences in the CSR initiatives and practices of social and commercial enterprises. Whereas SVIs strategy of social enterprises develop at the early stage of formation of the companies, CSR strategy of most commercial organisations have been incorporated into the management as an operational strategy at the later stages of the company's operations. SVIs among social enterprises were aimed at maximising community benefits and eco-friendly products and minimising exploitation of natural resources. On the contrary, many SVIs of commercial companies develop as business strategic tool aimed at maximising resources and profit to increase shareholders value. Therefore, CSR is now an instrumental component when evaluating an organisation and can be an important tool for maintaining profitability, stakeholder relationships and business reputations.

Many companies go beyond pursuing economic value as the sole aim of their business. Arguably, for firms to be truly sustainable they must incorporate the three pillars of sustainability (economic, social and environmental responsibilities). CSR demands that businesses act responsibly, ethically and socially. Nowadays, most businesses seem to pursue these goals, although at different levels. The purpose from a broader social perspective is targeted at making a difference or reducing harm through innovative environmental and social practices. The aims and objectives of commercial and social enterprises tend to con-

verge. Our findings and other studies show that SVIs provide a more strategic and pragmatic approach to sustainability approaches. Nowadays, many businesses recognise the opportunity that sustainability policy brings for improving business value and brand reputation, key drivers for profit maximisation and operational cost reduction.

This article focused on evaluating the scope of sustainability policies in multinational corporations by exploring CSR and SVIs practices. One of the limitations of this study was overreliance on secondary data. Therefore, we recommend that future studies should adopt qualitative-oriented primary research. Such studies should focus on conducting an audit of commercial and social enterprises to assess organisations' CSR and sustainability initiatives. This will measure the overall performance of initiatives by considering the views of management, customers, employees and shareholders.

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Determining the Underlying Dimensions of Quality of Work Life (QWL) in the Nigerian Hotel Industry

Nguwasen Kwahar, Akuraun Shadrach Iyortsuun

A B S T R A C T
Objective: The objective of this paper is to explore the underlying dimensions of quality of work life (QWL) in the Nigerian hotel industry.
Research Design & Methods: With a defined population of 3.110, a sample size of 355 was determined using probability technique, which formed the participants of the study. Employing the Delphi technique, eight experts and four cycles of inputs led to a consensual number of sixty-three indicators of QWL which formed the final inventory or variables of the quality of work life dimensions used for exploratory factor analysis. Exploratory factor analysis with varimax rotation was employed. Kaiser criterion, examination of the scree plot and Horn parallel analysis (Horn, 1965) guided factor extraction.
Findings: Preliminary assessment conducted confirmed the appropriateness of the dataset for factor analysis. Furthermore, based on the extraction criteria, five factors were extracted which explained 59.37% of the total variance in QWL in the Nigerian hotel industry, labelled as remuneration and benefits, job security and career satisfaction, training and opportunities for personal autonomy, home-work balance and safe and healthy environment.
Implications & Recommendations: The Nigerian hotel industry should focus on the QWL factors which the study reports as most considered by employees. The study has also identified the dimensions of QWL in the Nigerian hotel industry.
Contribution & Value Added: This study identifies the latent variables that show QWL in the Nigerian hotel industry, which are labelled as remuneration and benefits, job security and career satisfaction, training and personal autonomy, home-life balance and safe and healthy environment. The managerial implication is that owners and operators of hotels in Nigeria can benefit by understanding what quality of work life entails and which indicators show the concept.
Article type: research paper
Keywords: quality of work life; latent variables of QWL; exploratory factor analysis; underlying dimensions of QWL; Nigerian hotel industry
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INTRODUCTION

The 21st century has posed grave challenges to human resource management in organisations with the human factor recognized as the most important organisational resource which defines the prosperity and survival of organisations (Sojka, 2014; Kwahar, 2016). It therefore behoves on organisations to manage this important resource effectively and efficiently if they are to be successful in the contemporary and competitive environment. This becomes more important given the proliferation of technology at the work place (Hunker, 2014). Technology has become fundamental for and inseparable from organisations, especially in the contemporary business environment with the success of businesses dependent on its acceptability and scalability in the work place (Shengbin & Yo, 2011). Technology has also influenced human resource policies leading to creative solutions to attract and retain the best and productive workforce (Gardner, Lepak, & Bartol, 2003; Selvan, 2015). The focus of such innovative human resource policies is on maintaining high quality of work life with the hope of improving employee satisfaction and ultimately organisational performance. This scenario is aggressively being pursued in the hotel industry in Nigeria.

As clearly highlighted, central to the success of an organisation is the human resource, and fundamental to the productivity of the human resource is its quality of work life. Quality of work life as a complex and multidimensional concept addresses issues relating to conditions of work and the organisation's work environment and how it impactson employee's satisfaction, work life, non-work life and overall life (Psychogio, 2005; Naude, Kruger, & Saayman, 2015). Places, things, activities, people, social roles or elements of self-concept define an employee's life with the dynamism between employees and work environment in a formal organisation defined as quality of work life (Sojka, 2014; Naude *et al.*, 2015). The hotel industry espouses quality of work life as the humanisation of the work environment by focusing on task, physical work environment, social relationships, remuneration and reward system, management systems and employee relationship off and on the job. Therefore, quality of work life as a behavioural concept focuses on an individual's perception of and attitudes towards his or her work and the total working environment (David, Brazil, Krueger, Lohfield, & Tjam, 2001; Pulakos, 2009; Nickson, 2009).

A dearth of empirical research on the latent variables explaining quality of work life in the Nigerian hotel industry is what this study hopes to address. On the one hand, Nigerian researchers have focused mostly on explaining the literature and theories of quality of work life and on the other hand, employing predefined quality of work life constructs to assess its impact on organisational performance. There is a minimal attempt to explore the underlying constructs or the latent variables defining quality of work life, especially as regards the hotel industry in Nigeria. This identified research gap is what this study hopes to achieve.

Therefore, this research focuses on delineating the underlying dimensions of quality of work life by performing a principal components analysis on the identified indicators of quality of work life in the Nigerian hotel industry. The scope of the study is limited to five-stars hotels in Nigeria. Compared to hotel industries in other countries, the Nigerian hotel industry is relatively nascent (Kwahar, 2016). The Nigeria National Institute for Hospitality and Tourism [NIHT] (2015) classifies five hotels as five-stars in Nigeria. The justification of selecting only the five-stars hotels is based on the fact that they are top of the range in terms of the provision of hotel services and is regarded as ensuring a relatively high degree

of provision of quality of work life (NIHT, 2015). Furthermore, the five-stars hotels are a good representation of hotels in Nigeria as lower-ranked hotels understudy their programmes, policies and strategies. Indeed, the research findings would also be applicable to lower-ranked hotels in the Nigerian hotel industry.

The paper is therefore divided into the following sub-sections: introduction, literature review, material and measures, results and discussion and lastly conclusion.

LITERATURE REVIEW

Elton Mayo and F. J. Roethlisberger's argument for a humanistic approach to management changed the focus from productivity and targets. This approach gave birth to the human relations movement targeted at employer-employee relations and remuneration programmes in the work environment (Levitt & List, 2011). The psychological contract theory (March & Simon, 1993; Rousseau, 1995; Coyle-Shapiro & Parzefall, 2008) and the social exchange theory (Homans, 1961; Blau, 1964; Emerson, 1976, 1987; Cook & Rice, 2003) among others have attempted to explain the dynamism between employees and their work environment. These theoretical foundations have provided the impetus for researchers to delineate latent variables to show quality of work life.

Almarshad's (2015) study in Saudi Arabia identified seventy-nine items as measures of quality of work life but when the items were subjected to factor analysis, thirty items loaded on a four-factor structure. Stress at work, preoccupation with work, job and career satisfaction and working conditions were the underlying constructs of quality of work life identified in their research. On their part, Levine, Taylor and Davis (1984), using a six-stage Delphi technique, identified a seven-structure quality of work life construct defined using thirty-four items as a degree to which my superiors treat me with respect and have confidence in me, variety in my daily work routine, challenge of my work, my present work leads to good future work opportunities, self-esteem, extent to which my life outside of work affects my life at work and lastly, the extent to which the work I do contributes to society.

Wyatt and Wah (2001) research on what constitutes quality of work life in Singapore also arrived at a thirty-five, four-structure underlying dimension of what constitutes quality of work life, delineated as supportive management and favourable work environment, personal growth and autonomy, nature of the job and stimulating opportunities and co-workers. In another study, Rethinam and Ismail (2008) modelled quality of work life among information and technology professionals in Malaysia. They identified a five-structure dimension of quality of work life, which they defined as health and well-being, job security, job satisfaction, competency development and work and non-work life balance.

Sojka (2014) researching in the Slovak economic environment classified the indicators of quality of work life into three broad classes as primary, secondary and tertiary characteristics. These classes were therefore broken down into a ten-structure dimension of quality of work life listed as financial reward, work load, content of work, social relations, work position and possibility for further development, working conditions, enterprise localisation, benefits, corporate culture and enterprise image. For Hunker (2014), his study on the underlying constructs of quality of work life focused on contingent workers in the Danish hospitality industry. Hunker identified an eight-structure quality of work life dimension, which he listed as credibility, pride in work

and company, respect, camaraderie and friendliness, openness and fairness, job security, pay and benefits and opportunities.

Van Laar, Edwards and Easton (2007) comprehensive research on quality of work life in the United Kingdom health sector resulted in twenty-three items and a six-structure model of work-related quality of life, which they propose as possible to be applied in the health care sector. They conceptualised quality of work life as job and career satisfaction, general well-being, home-work interface, stress at work, control at work and working conditions. On the other hand, Walton's (1974) quality of work life model delineated an eight-structure dimension as adequate and fair remuneration, safe and healthy environment, development of human capacities, growth and security, social integration, constitutionalism, total life space and social relevance.

Worthy of mention is the study by Swamy, Nanjundeswaraswamy and Rashmi (2015) on the indicators of quality of work life in India. Their study produced a 27-item questionnaire and a nine-structure construct as the quality of work life which they named work environment, organisation culture and climate, relation and co-operation, training and development, remuneration and rewards, facilities, job satisfaction and job security, autonomy of work and adequacy of resources. Hossain's (2013) study focusing on the garment industry in Bangladesh was based on an 85-item instrument as indicators of quality of work life. His factor analytic result revealed five latent variables of quality of work life as nature of the job and career progress, relationship with the supervisor, favourable work environment, rewards and recognition and union-management relations. Lastly, a study conducted by Das and Gope (2013) in the Indian manufacturing sector, specifically in the sugar mills sub-sector involving both the cooperative and private sugar mills, revealed a ten factor-structure as measures of quality of work life, which was defined as comfortable work space, lighting facilities, level of temperature, health facilities, safety measures, physical working conditions, employee welfare facilities, standard of welfare facilities, supervisor interference and lastly job stress.

Different indicators or dimensions are used to show quality of work life. The broad categories of what constitutes quality of work life from the review could be conveniently grouped into indicators that show employees' satisfaction with the work they do; indicators that show how employees are treated or regarded at their work place; indicators that show how the work impacts on employees' life outside work; indicators that show employees' working conditions; indicators that show the opportunities and challenges available at the work place; indicators that show a safe work environment and lastly indicators that show the impact the job has on the physiology, emotion and psychology of employees. Each grouping identifies different elements of what constitutes quality of work.

Therefore, what constitutes quality of work life is dependent on the environment and the industry where the study is undertaken. Going by the review, the quality of work life dimension is dependent on the economic and social-cultural factors existing in the locality where the study was conducted. Furthermore, the industry where the study took place also contributes. Indeed, both an organisation's internal and external environment contributes to explaining the nature and substance of what constitutes quality of work life. Therefore, a static view of quality of work life would be counterproductive; hence, the need to empirically determine what constitutes quality of work life. It is based on the following argument that this study hopes to determine the latent variables or underlying dimensions of quality of work life in the Nigerian hotel industry. Exploratory factor analysis is used to achieve this objective.

MATERIAL AND METHODS

Participants

The scope of this study is influenced by the nature and infancy of the hotel industry in Nigeria when compared to other climes. The study is therefore limited to only five-stars hotels in Nigeria because they define the standard in hotel management in Nigeria. They are indeed the cynosure of the Nigerian hotel industry and therefore models for lower – ranked hotels in the country. The scope is therefore representative of the hotel industry in Nigeria as findings can be readily generalised to other lower-ranked hotels in Nigeria. According to Kwahar (2016), the five top five-stars hotels in Nigeria are Transcorp Hilton, Abuja, Sheraton Hotel, Abuja, Eko Hotel and Suites, Lagos, International Hotel, Lagos and Hotel Presidential, Port-Harcourt with a total of 3.110 employees. Using the Taro Yamane (1967) formula, a sample of 355 was determined, which formed the participants of the study. Bowley's (1964) proportional allocation formula was adopted in distributing the sample to the hotels selected. However, only 327 individuals from the five five-stars hotels finally agreed to participate in the research, an acceptable figure for principal components analysis (Tabachnik & Fidell, 2007; Yong & Pearce, 2013). To deal with sampling error and bias, probability technique was implemented.

Measures

Levine *et al*. (1984) argues that what constitutes quality of work life is best defined by those to which the concept applies and are knowledgeable in it. This study supports this argument, reinforcing the use of the Delphi technique in gaining insight into what constitutes quality of work life or the indicators of quality of work life in the Nigerian hotel industry. Knowledgeability, expertise, consensus, iteration, anonymity and statistical aggregation of opinions among others are the hallmarks of the Delphi criteria (Hsu & Sandford, 2007; Skulmoski, Hartman, & Krahn*,* 2007). However, there is generally no acceptable criterion for the selection of subjects and determination of the number of experts in a Delphi panel (Delbecq, Van de Ven, & Gustafson, 1975) with decision influenced by time, expense and quality of the expert panel (Hassan, Keeney, & McKenna*,* 2000; Thangaratinam & Redman, 2005) and indeed, the area of the study. The recommendation by Linstone (1978) for a minimum of seven members influenced the decision to employ eight experts, four each from the Nigerian university system and top-level managers working in the hotel industry in Nigeria. Given the unique characteristics of the Nigerian hotel industry, the group started with one hundred and twenty-eight indicators of quality of work life. Four cycles of inputs, suggestions and consensus amongst the group members led to a consensual number of sixty-three indicators (Appendix A), which formed the final inventory or variables of the quality of work life dimensions used for exploratory factor analysis. The variables consisted of six negatively worded questions which were reversed before conducting the exploratory factor analysis. Seventeen weeks was the duration within which the four Delphi cycles were concluded.

The 63 variables were presented using a five-point Likert scale with five representing 'strongly agree', four indicating 'agree', three indicating 'undecided', two indicating 'disagree' and lastly one indicating 'strongly disagree'. A total number of 355 questionnaires were therefore distributed to the employees of the selected hotels. Five research assistants as-

sisted in the distribution and collection of the questionnaires administered to the hotels under study. To ensure that the questionnaires distributed were returned, adequate time was allowed. From the administration to the return of the questionnaires, a total of twenty-three weeks were allowed. The sufficiently allowed time increased the number of questionnaires filled and returned that were used for the exploratory factor analysis.

Data Analysis

The main objective of this study is to explore the underlying dimensions of quality of work life in the Nigerian hotel industry. Based on this objective, exploratory factor analytic technique is the most appropriate tool to achieve this objective. Using SPSS v.20, principal component analysis was employed in exploring the correlations of the observed variables of quality of work life. As argued by Tabachnik and Fidell (2007), principal component analysis focuses on extracting the maximum variance from the observed variables. It is a technique that produces the latent variables by summarising the correlation among the observed variables under study. Orthogonal rotation, specifically varimax rotation, was employed as the rotation technique. The choice of varimax and therefore principal components analysis was based on the fact that no significant difference was observed between the result of principal axis factoring with oblimin rotation and principal component analysis with orthogonal rotation. Principal component with varimax rotation was therefore preferred given the simplistic nature of explaining the extracted components in line with the stated objectives of this study. Furthermore, the number of factors retained was guided by three criteria: Kaiser criterion with eigenvalues greater than one, examination of the scree plot and Horn parallel analysis (Horn, 1965), which is the most preferred technique in the decision for factor retention (Tabachnik & Fidell, 2007; Matsunaga, 2010; Hair, Babin, & Anderson, 2010). In parallel analysis, factors are retained that have eigenvalues more than eigenvalues from a randomly generated dataset with a similar sample size and number of variables. This was the criterion that determined the retention of factors in this study with the minimum threshold for rotated components specified as 0.50 (Hair *et al.*, 2010) to help achieve simple structure (Thurstone, 1947).

RESULTS AND DISCUSSION

Preliminary Analysis

Preliminary assessment was conducted to ensure the appropriateness of using exploratory factor analysis with the dataset. The correlation matrix did not show patterned relationships among the observed variables. To confirm this further, the Haitovsky (1969) test indicated that the determinant score was significantly different from zero, indicating the absence of multicollinearity. Also, a spot check of the observed variables linearity (Tabachnik & Fidell, 2007) shows the absence of a curvilinear relationship between the variables. The spot check also led to the identification of seventeen outlying cases which were removed, leading to a reduced number of 315 cases that were used for further analysis. Further test conducted included the KMO and Bartlett's Test of Sphericity. The Bartlett's Test of Sphericity (Bartlett, 1954) is statistically significant with χ^2 (1770)= 12,837.79, p < 0.001, indicating the factorability of the correlation matrix, while the Kaiser-Meyer-Olkin Measure of Sampling Adequacy was 0.856 exceeding the recom-

mended value of 0.6 (Kaiser, 1970, 1974). Also, the diagonal elements of the Anti-Correlation matrix were all above the recommended value of 0.5 (Hair *et al.*, 2010; Yong & Pearce, 2013) indicating that reliable and distinct factors can be produced.

An initial analysis of the data resulted in the extraction of thirteen factors with eigenvalues above one and five items not loading on any factor. Different techniques were employed to determine the appropriate extraction and rotation technique with the goal of achieving simple structure (Thurstone, 1947). To achieve this objective, the removal of items was based on the following criteria: (a) when items do not load on a factor (b) when items are highly correlated amongst themselves to affect the factorability of the correlation matrix (c) when items have low communality with the factors. Based on these criteria, a total number of twenty-nine items were therefore removed. Also, oblimin rotation did not show a significantly high correlation between the extracted factors with the correlation ranging from -0.021 to highest of -0.307. Indeed, only factor 1 and 2 had a correlation coefficient above 0.3, that is -0.307 otherwise, all of the correlation coefficients of the extracted factors were less than 0.3. This reinforced the choice of Varimax as the factor rotation technique of choice.

Exploratory Assessment of Measures

The objective of the study was achieved using principal components analysis with varimax rotation. Five factors or components were extracted following the guidelines determined in this study. Six factors showed eigenvalues above one. However, the scree plot suggested the extraction of five factors, which was confirmed by the result of Horn's parallel analysis. The result of the parallel analysis showed eigenvalues exceeding the corresponding criterion values for a randomly generated data matrix of the same size (34 items × 315 respondents). The result of the five-factor structure of quality of work life in the Nigerian hotel industry is presented as Table 1.

The five factors explained 59.37% of the total variance in the quality of work life in the Nigerian hotel industry, which is slightly below the recommended minimum of 60% as suggested by Hair *et al.* (2010). However, Peterson (2000, p. 263) argues that there is no 'generalisation regarding an acceptable threshold' for the minimum total variance explained. Tinsley and Tinsley (1987, p. 420) argue that 'an analysis in which factors explain only 30-40% of the estimated common variance obviously leaves an alarming amount of common variance unexplained' and claimed that a factor solution should account for at least 50% of the total variance explained (Tinsley & Tinsley, 1987; Merenda, 1997). This is supported by the research conclusion by Peterson (2000, p. 268) in his meta-analytical study, which shows that on average, '56.6% of the variance in the respective set of variables' factor analysed is reported by factor analytic studies. These research conclusions justified the acceptance of the reported total variance explained of 59.37%.

Factor 1 labelled as 'remuneration and benefits' contributes in 18.52%, factor 2 labelled as 'job security and career satisfaction' contributes in 15.84%, factor 3 labelled as 'training and opportunities for personal autonomy' contributes in 8.99%, factor 4 labelled as 'home-work balance' contributes in 8.24% and lastly, factor 5 labelled as 'safe and healthy environment' contributes in 7.80%. The total explained variance is reasonable within the acceptable threshold and therefore regarded adequate in explaining the variance in quality of work life in the Nigerian hotel industry. According to Stevens (2002), factor loadings above 0.4 are considered adequate, hence, the

choice of 0.50 (Hair *et al*., 2010) to achieve simple structure. Therefore, items with loadings of less than 0.5 were omitted for clarity with only 'no minimal control at work by supervisor when target achieved' being the only item with cross loading on factor 3 and 4 with a load of 0.50 on factor 3 and -0.55 on factor 4.

Communalities measure the proportion of each item variance accounted by the extracted factors or latent variables and as (Table 1) shows, the communalities range from 0.48 to 0.70, which satisfies the acceptable threshold suggested by Field (2009). Also, the calculated Cronbach's Alpha (∝) for the latent variables or the extracted factors shows that 'remuneration and benefits' has a value of 0.91, 'job security and career satisfaction' 0.89, 'training and opportunities for personal autonomy' 0.73, 'home-work balance' 0.73 and 'safe and healthy environment' 0.71. All the alpha values are above the minimum threshold value of 0.70 for the early stage research as suggested by Nunnally (1978).

The result of the exploratory factor analysis indicates that five constructs account for the variance of the quality of work life of the hotel industry in Nigeria which are defined as 'remuneration and benefits', 'job security and career satisfaction', 'training and opportunities for personal autonomy', 'home-work balance' and 'safe and healthy environment'. These are the factors that define quality of work life in the Nigerian hotel industry. They are the underlying constructs that can be used as the benchmark measure of quality of work life in the hotel industry in Nigeria.

Table 1. Factor loadings, communalities (h2) and percent of variance for principal factors extraction with Varimax rotationa on the QWL items

Items	Component					h^2
	[b]F_1	F_2	F_3	F_4	F_5	
Adequate remunertion	**0.74**	0.16	-0.17	-0.01	0.11	0.62
Timely payment of salaries and allowances	**0.72**	0.28	0.09	0.14	0.02	0.62
Continuous review of pay based on response to change in cost of living	**0.68**	0.15	-0.06	0.44	0.07	0.69
Performance based remuneration	**0.67**	0.12	0.02	0.24	0.14	0.55
Fair and unbiased promotion system	**0.67**	0.21	0.39	0.05	0.08	0.65
Fair remuneration	**0.67**	0.18	0.30	-0.03	0.06	0.56
Rewards for good work	**0.65**	0.11	0.30	0.12	-0.07	0.55
Adequate and comprehensive grade and pay structures	**0.65**	0.47	0.14	0.02	-0.19	0.70
Appropriately implemented allowances and benefits (location allowance, overtime and shift payments)	**0.63**	-0.04	-0.22	0.04	0.25	0.51
Adequate employee benefits	**0.62**	0.35	0.05	-0.04	-0.18	0.54
Fair financial incentive plan	**0.59**	0.11	0.23	0.12	0.23	0.47
Above-average industry median salary	**0.58**	0.16	0.36	-0.15	-0.04	0.52
Reward management procedures and policies	**0.58**	0.14	0.05	-0.36	0.27	0.56
Stability of employment	0.04	**0.79**	0.16	0.12	0.02	0.67
Satisfaction with present job	0.19	**0.77**	-0.03	-0.05	0.08	0.64
Work position and prospects of career development	0.23	**0.76**	0.16	0.04	0.06	0.66
Strict lay-off policies and faithfulness in implementing dismissal policies	0.21	**0.75**	-0.01	-0.07	0.08	0.62
Supportive management and stimulating job and career opportunities	0.24	**0.70**	0.01	-0.08	0.07	0.57

Items	Component					h²
	bF₁	F₂	F₃	F₄	F₅	
Pride in work/company	0.16	**0.70**	0.16	0.15	0.17	0.60
Satisfaction with career opportunities	0.30	**0.64**	0.18	0.14	-0.28	0.63
Attractiveness of present career	0.05	**0.62**	0.16	0.37	0.11	0.56
Opportunity for management and operational decision making	0.06	0.10	**0.72**	0.09	0.20	0.58
Frequency and sufficiency of relevant and targeted training programmes	0.05	0.32	**0.69**	0.08	-0.06	0.59
Training programmes aimed at improving interpersonal etc. skills	0.27	-0.15	**0.69**	-0.04	0.17	0.60
Training programmes focusing on employee requirements to ensure promotion within	0.00	0.42	**0.62**	0.02	-0.15	0.58
Suitability of work hours/patterns to suit personal preference	0.26	0.12	0.10	**0.75**	0.13	0.67
Opportunities for time off work with family and friends	0.18	0.31	-0.07	**0.66**	0.04	0.56
Non-availability of home-life balance programmes	0.34	-0.05	0.08	**-0.64**	0.40	0.69
Flexibility in performing work responsibilities	0.21	-0.11	0.32	**0.63**	0.11	0.57
No minimal control at work by supervisor when target achieved	0.21	0.14	**0.51**	**-0.55**	-0.08	0.63
Salubrious work environment	-0.01	0.14	-0.08	-0.03	**0.72**	0.55
Continuous risk assessment and safety inspections in the Organisation	0.05	0.07	0.15	0.13	**0.70**	0.54
Updated work environment	0.09	-0.12	-0.02	-0.01	**0.68**	0.48
Safety measures/policies at work	0.26	0.34	0.20	0.07	**0.66**	0.67
Eigenvalues	9.63	3.28	2.71	2.34	2.24	
% of Variance	18.52	15.84	8.99	8.24	7.80	
Cronbach alpha (∝)	0.91	0.89	0.73	0.73	0.71	
Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization. Rotation converged in six iterations.						
b. Factor Labels: F₁ = Remuneration and Benefits; F₂ = Job Security and Career Satisfaction; F₃ = Training and Opportunities for Personal Autonomy; F₄ = Home-Work Balance; F₅ = Safe and Healthy Work Environment						

Note: factor loadings over 0.50 appear in bold.

Source: own calculations based on the result of the exploratory factor analysis (2016).

Factor 1: Remuneration and benefits

'Remuneration and benefits' encompasses fair, adequate and timely financial and non-financial entitlements employees working in the hotel industry in Nigeria receive. Indeed, it implies an effective remuneration and reward management system, that is employee-centred, which aims to promote employee satisfaction and productivity. Remuneration and benefits is the most important factor of quality of work life in the Nigerian hotel industry, accounting for 18.5% of the variance in the quality of work life items. This implies that employees place high premium on remuneration, allowances and benefits as an important element of their work satisfaction and indeed non-work satisfaction. They expect employers or organisations to ensure a fair, adequate and comprehensive system of pay and reward. This holds true for employees working in the hotel industry in Nigeria (Nwadukwe, 2012; Kwahar, 2016). It is on the basis of this that remuneration and benefits comes top as the most important dimension of quality of work

life in the Nigerian hotel industry. Also its Cronbach's Alpha (∝) of 0.91 is above the minimum threshold as suggested by Nunnally (1978).

Earlier research studies carried out by Walton (1974), Levine (1983), Wyatt and Wah (2001), Hossain (2013), Hunker (2014), Sojka (2014) and Swamy *et al.* (2015) have also identified remuneration and benefits as an indicator or a dimension of quality of work life. This has therefore supported the hypothesis that employees in the Nigerian hotel industry also acknowledge remuneration and benefits as being relevant and necessary if hotels in Nigeria hope to achieve quality of work. Expatiating further, based on the factor loadings of the items under remuneration and benefits, adequate remuneration ranks highest as the issue of choice for employees in the Nigerian hotel industry. Indeed, remunerating employees adequately would provide the impetus for organisational success (Namasivayam *et al.,* 2007; Agba, 2007; Inyang & Akpama, 2012; Imafidon, 2013; Armstrong, 2014). Other issues besides adequate remuneration in the order of ranking include timely payment of salaries and allowance, continuous review of pay based on response to the movement in the cost of living in the country, remuneration related to employee performance, fair and unbiased employee promotion system, fair remuneration to employees, rewarding employees for good work, adequate and comprehensive grade and pay system, appropriately implemented employee allowances and benefits, adequate benefits for employees, fair financial incentive plan, payment of above-average industry median salary and lastly implementing reward management procedures and policies. All of these issues define remuneration and benefit as a dimension of quality of work life in the Nigerian hotel industry.

Factor 2: Job security and career satisfaction

The second most important quality of work life dimension is 'job security and career satisfaction' as indicated by the total variance explained of 15.8%. Its Cronbach's Alpha (∝) of 0.89 is also above the minimum threshold, (Nunnally, 1978). Research studies by Reithinam and Ismail (2008), Easton and Van Larr (2013), Hunker (2014), Sojka (2014), Gauri (2015) and Swamy *et al*. (2015) also identified aspects of job security and career satisfaction as the dimension of quality of work life. Job security involves policies which assure employees that they are an important resource in the organisation in such a way as to guarantee them sustainable employment for the organisation and not being expected to be sacked or removed unexpectedly and arbitrarily. When such a culture exist, employees working in such an organisation are reasonably expected to be satisfied working in such an organisation. Career satisfaction involves satisfaction with the work, which influences overall life satisfaction (Iverson & Maguire, 2000; Diener, 2010; Thompson & Phua, 2012). This might have justified the identification of job security and career satisfaction as a dimension of quality of work life in the Nigerian hotel industry. This is especially true given the proliferation of contingent work in the Nigerian hotel industry. Furthermore, the negative impact of the present economic recession may have influenced the respondents to consider job security and career satisfaction as a dimension of quality of work life in the Nigerian hotel industry.

In the order of importance, the issues covering job security and career satisfaction are stability of employment, satisfaction with present job, work position and prospects of career development, strict-layoff policies and faithfulness in implementing dismissal policies, supportive management and stimulating job and career opportunities, pride in work/company, satisfaction with career opportunities and attractiveness of present career. Based

on the result, employees in the hotel industry in Nigeria believe that their quality of work life is improved when condition of service guarantees stability, which produces feelings of satisfaction with their job giving them opportunity to advance in their chosen career. On the other hand, when there are strict policies of layoffs, which are adherently followed, then this guarantees job security especially when the management is very supportive by giving opportunities to the employees. Furthermore, employees pride in the organisation contributes to the attractiveness of a career in the hotel industry in Nigeria. These are the issues regarding job security and career satisfaction in the Nigerian hotel industry.

Factor 3: Training and opportunities for personal autonomy

The result of the factor analysis shows that training and opportunities for personal autonomy ranks as the third most important dimension of quality of work life in the Nigerian hotel industry. The construct, which has a Cronbach's Alpha ($\propto$) of 0.73, accounts for a total variance explained of 10%. This factor separately or together was also identified by earlier research conducted by Walton (1974), Levine (1983), Wyatt and Wah (2001), Mohamad and Mohamed (2012), Adetoyin (2012), Easton and Van Laar (2013), Hunker (2014), Sojka (2014), Gauri (2015) and Swamy *et al*. (2015) as a dimension of quality of work life.

Employee training is fundamental to organisational success. Training boostsan employee's chances to be relevant and gives them opportunities to contribute to organisational success. Creatively designed training programmes increase an employee's worth as an important resource with the attendant increase in responsibility and authority, thereby guaranteeing personal autonomy in the discharge of assigned duties. Hackman and Oldham (1976, 1980) define autonomy as the leverage to be independent, free and the discretion in performing a job. It is what employees working in the Nigerian hotel industry consider as the third most important dimension of quality of work life.

Five items make up the 'training and opportunities for personal autonomy' construct of the quality of work life. The fifth item cross-loads with the factor four, labelled as work-home balance. A review of the fifth item shows that it could indeed be considered an item of the 'training and opportunities for personal autonomy' quality of work life dimension. The fifth item is 'no minimal control at work by supervisor when target achieved' which could be regarded as an item under 'training and opportunities for personal autonomy' construct. Opportunity for management and operational decision-making accorded to employees is the item with the highest loading on the training and personal autonomy quality of work life dimension. It means that when employees are given an opportunity to participate in management and operational decisions based on the training received, then quality of work life is assured. The next item after opportunity for management and operation decision-making is frequency and sufficiency of relevant and targeted training programmes followed by training programmes aimed at improving interpersonal and other skills and training programmes focusing on employee requirements to ensure promotion within. The last item, which also loads on the work-home balance, is no minimal control at work by supervisor when target is achieved. This last item has the least loading on the training and personal autonomy dimension. These five items form the 'training and opportunities for personal autonomy' dimension of the quality of work life in the Nigerian hotel industry.

Factor 4: Home-work balance

Organisations the world over including organisations in Nigeria, face the challenge of managing the conflict between employees work and their personal and family life. Organisations require employees to contribute their time, talent, knowledge and skills to ensure its success while employees on their part, desire to have time for their personal activities and with their family. These desires are in opposition to each other, requiring a delicate balancing act. The extent to which these conflicting issues are addressed effectively and efficiently, to that extent employees are encouraged to be active participants in the success story of such an organisation. 'Home-work balance' therefore implies employer-employee consensual decisions and policies that guarantee leverage to employees to attend to their non-work activities but also guarantee active participation of employees to the programmes and successes of the organisation. It is what Clark (2000) considers an equilibrium state with home and work duties that ensure satisfaction and good functioning. Home-work balance with a Cronbach's Alpha (∝) of 0.73 accounts for 8.2% of the variance in the quality of work life items making it the fourth most important dimension.

Five items load on the home-work dimension and as indicated by their factor loadings, suitability of work hours/patterns to suit personal preferences rates higher followed by opportunities for time off work with family and friends, non-availability of home-life balance programmes, flexibility in performing work responsibilities and nominimal control at work by supervisor when target achieved. As explained in the last section, 'no minimal control at work by supervisor when target achieved' loads on the third factor too but the loading on the home-work dimension is higher that it's loading on the training and autonomy dimension, hence its inclusion also on the home-work construct. However, the Cronbach's Alpha (∝) improves from 0.72 to 0.73 when 'no minimal control at work by supervisor when target achieved' is deleted, hence the decision not to include it as an item of the home-work dimension. Therefore, only the first four items as shown in (Table 1) are regarded as the sub-dimensions of the home-work construct of the quality of work life in the Nigerian hotel industry. Home-work construct as quality of work life dimension has also be reported by research conducted by Levine (1983), Reithinam and Ismail (2008), Easton and Van Laar (2013), Mohamad and Mohamed (2012), Sojka (2014), Gauri (2015) and Swamy *et al*. (2015), among others.

Factor 5: Safe and healthy environment

Based on the result of the analysis, 'safe and healthy environment' is the least important dimension of quality of work life in the hotel industry in Nigeria. The scope of the study may have influenced the result giving that it is only five-stars hotels in Nigeria that were considered. Being such a class of hotel, great effort is already taken by them to provide a safe and healthy environment. The construct only accounts for 7.8% of the variance in the quality of work life items with a Cronbach's Alpha (∝) of 0.71. Safe and healthy environment defines the extent and ability of an organisation to provide a safe and healthy environment for employees, which invariably impacts positively on employee performance (Inyang & Akpama, 2012; Nwadukwe, 2012).

Four items make up 'safe and healthy environment' as a construct of quality of work life in the Nigerian hotel industry. Looking at the factor loadings, a salubrious work environment

is the most important item followed by continuous risk assessment and safety inspections in the work place. The third most important item under safe and healthy environment is an updated work environment and followed lastly by safety measures/policies at work at the organisation. These four issues taken together define 'safe and healthy environment' as a dimension of quality of work life in the hotel industry in Nigeria. Walton (1974), Mirvis and Lawler (1984), Van Laar *et al.,* (2007), Easton and Van Laar (2013), Hossain (2013), Sojka (2014) and Swamy (2015) also support this view, reinforcing the conclusion that a safe and healthy work environment guarantees the existence of quality of work in hotels in Nigeria.

CONCLUSIONS

The objective of this study is to explore the underlying constructs or dimensions of quality of work life in the Nigerian hotel industry. To appreciate and achieve this objective, five-stars hotels operating in the Nigerian hotel industry defined the scope. Principal components analysis with Varimax rotation revealed the presence of five underlying constructs of quality of work life in the Nigerian hotel industry, which were labelled as 'remuneration and benefits', 'job security and career satisfaction', 'training and opportunities for personal autonomy', 'home-work balance' and 'safe and healthy environment'. These are the five factors that have formed the benchmark measures of quality of work life in the Nigerian hotel industry.

The major theoretical contribution of this research is in identifying the latent variables that show quality of work life in the Nigerian hotel industry, which are labelled as remuneration and benefits, job security and career satisfaction, training and personal autonomy, home-life balance and safe and healthy environment. The most significant managerial implication is that owners and operators of hotels in Nigeria can benefit by understanding what quality of work life entails and which indicators show the concept. Furthermore, operators and management of Nigerian hotels should focus on those factors that the study has reported as being the most valued quality of work life dimension as this would greatly influence the perceptual consideration by employees of the existence of quality of work life. Also, researchers, academics and students can now use the identified dimensions to test hypotheses regarding quality of work of life in the Nigerian hotel industry.

The major limitation of the study is that the scope is limited to five-stars hotels, neglecting lower-ranked hotels in Nigeria. Also, the study relied on the responses of the employees from the selected hotels under study, which may be affected by perceptual biases in answering the questionnaire. Furthermore, generalisation of the research findings to other countries would be limited, given that different countries adopt different criteria for hotel classification. Future research could be carried out to include lower-ranked hotels to delineate the factors which show quality of work life in the Nigerian hotel industry. Also, a comparative study of the latent variables in selected developing countries in sub-Saharan Africa would be most appropriate.

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Appendix

Quality of Work Life Indicators

Adequate remuneration.	Leadership training programme.	Continuous review of pay reviews.
Objectives of training programme.	Performance based remuneration.	Fair and unbiased promotion system.
Availability of health care and medical facilities.	Reward for good work.	Safety measures/policies at work.
Employees' own style and pace of work.	No time for personal care.	Updated work environment.
Reward management procedures.	Unusual and unique benefits.	No minimal control at work by supervisor when target met.
Work freedom.	Grooming new leaders.	Corporate culture supports work-life balance.
Recompense.	Written and explicit no-layoff policy.	Stability of employment.
Facilities at work support my family life.	Pride in work/company.	Inappropriate fair job rotation programme.
Regularity in updating talent.	Work position and prospects of career development.	Communicating the need for better health, safety practices.
Satisfaction with present job.	Management of stress in the organisation.	Flexibility in performing work responsibility.
Frequent leave granted to employees.	Wage balance.	Credibility, respect and fairness.
Camaraderie, friendliness and fruitful relationship with co-workers and supervisors.	Professionalism of career.	Continuous risk assessment and safety inspections in the organisation.
Suitability of work hours/patterns to suit personal preference.	Productivity at work.	Opportunities for time off work with family and friends.
Waste and pollution policies at work environment.	Opportunities for management/operational decision-making.	Supportive management and stimulating job and career opportunities.
Satisfaction with career opportunities.	Availability of convenience facilities.	No organisation-wide bonus scheme.
Fair financial incentive plan.	Non-availability of home-life balance programme.	Attractiveness of present career.
Training programmes aimed at improving interpersonal etc. skills in usage of modern tools and equipment.	Frequency and sufficiency of relevant and targeted training programme.	Appropriately implemented allowances and benefits (location allowances, overtime, shift allowance).
Timely payment of salaries and allowance.	Adequate employee benefits.	Equal opportunities for women employees.
Above average industry median remuneration.	Strict layoff policies or strict implementation of same	Team-based pay schemes.
Training programmes focus on employee requirements to ensure filling vacancies in-house.	Fair remuneration.	Communicating of policies to employees.
Adequate and comprehensive grade and pay structures.	Non-participation in development of remuneration system.	Salubrious work environment.

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The contribution of co-authors is equal and can be expressed as 50% each of the authors: N. Kwahar prepared the literature review, while A. S. Iyortsuun prepared the statistical calculations.

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Inspiring Work-Life Balance: Responsible Leadership among Female Pharmacists in the Egyptian Health Sector

Mohamed Mousa

A B S T R A C T

Objective: The aim of the research was to investigate the effect of responsible leadership on female pharmacists' work-life balance/imbalance forms in public hospitals in Menoufia province, Egypt.

Research Design & Methods: This is a quantitative study and a total of 350 female pharmacists were contacted. After four follow ups, a total of 230 responses were collected with a response rate of 65.71%.

Findings: The findings highlighted only an aggregate of virtues and is not considered a strong statistical predictor for any of the three work-life balance/imbalance forms (time-based balance/imbalance, strain-based balance/imbalance and behaviour-based balance/imbalance) while the other three dimensions (stakeholder involvement, the model of leader's role and the principles of ethical values) of responsible leadership had a significantly high effect on work- life forms.

Implications & Recommendations: Dependent and independent variables were collected from the same source, and this may have led to an inflation of statistical relationships. Public organisations like hospitals have to treat female pharmacists responsively as one of the main stakeholders who requires flexible work hours, active participation in decision making, and clear empowerment in the workplace.

Contribution & Value Added: This article contributes by filling a gap in management and organisation literature, in which empirical studies on the relationship between responsible leadership and work-life balance/imbalance have so far been quite limited in the literature. For future studies, the author suggests testing the same propositions with physicians, nurses, and other categories of employees in Egyptian public hospitals.

INTRODUCTION

Leadership style is an effective mechanism which prompts employees to innovate, business models to be checked and updated, work problems to be discovered and managed, and finally organisations to be driven in order to survive and prosper. However, leadership today is undergoing a transitional stage (Erkutlu & Chafra, 2016). Scandals in organisations like Enron, Tyco and WorldCom along with the 2008 global economic crisis the world witnessed have raised questions about the relevance and adequacy of the known leadership styles (Inglehart, 2008). The role and accountability of business community leaders are also put to question. In this light, many business leaders and academic experts have realised that maximising businesses' profits cannot be the only target (Wade, 2006). And thus, any business attempt to maximise profit should be accompanied by a considerable concern for achieving the well-being of the environment that the firm operates in, the welfare of internal and external stakeholders the firm serves and the wisdom the firm employs when dealing with its staff (Hymavathi, Kasarabada, & Avadhanam, 2015). This creates a space for what academicians choose to label 'responsible leadership' which urges organisations' leaders to maintain a noticeable commitment towards alleviating poverty, supporting peace, promoting freedom and safeguarding human rights in the communities their organisations serve (Bonoli, 2005; Carrasco, 2007; Avram & Kunhe, 2008; Antunes & Franco, 2016). Ciculla (2004), De Hoogh and Den Hartog (2008), Earley (1989), Eva and Sendjaya (2013) indicate that responsible leaders constantly disseminate the values of virtue, wisdom, empathy and sympathy for the betterment of their societies (Holt, 2006; Maak & Pless, 2008; Morland, 2015). That is why, the studies of Fishbein and Ajzen (1975), Pless (2007) Maak and Pless (2009, 2011), Nonet, Kassel, and Meijs (2016) argue that social responsibility is the main challenge facing responsible leaders nowadays. Leadership research is no longer limited to the leader/followers relationship but instead it has expanded to cover the leader-stakeholder relationship. It is concerned with various ways in which stakeholders perceive such a relationship and that responsible leaders seek to support and maintain that relationship (Tran, Fallon, & Vickers, 2016).

Over the last two decades, work-life balance has become a buzzword in various academic disciplines like human resources management, cultural diversity management, organisational communication, and organisational behaviour (Anderson, 1996; Anxo Franz, & Kummerling, 2013). Due to the growing awareness of demographic changes, labour market participation, feminist active lobbying and paid employment, the concept has found its place in public policies of countries (Hennig, Gaterman, & Hagglund, 2012). Therefore, many public and private employers have provided paid maternity and on-site childcare services as a part of their responsibilities towards employees (Emslie & Hunt, 2009). However, with an increase in employees' average income and the socio-cultural shifts they experience, employees are calling for far more demands that employers have to fulfil (Lim, Song, & Choi, 2012).

Avgar, Givans and Liu (2011) argue that work-life balance is no longer considered a welfare but an effective dynamic an organisation should adopt to retain its talents. The same study found a negative relationship between the existence of effective work-life policies and employees' turnover intentions. Parkes and Langford (2008) indicate that the importance of work-life balance stems from its positive impact on both individual and organisational performance, whereas Nelson, Quick, Hitt and Moesel (2012) found a positive linkage with job satisfaction.

Moreover, Shoekand and Priyanka (2013) report a positive correlation between the work-life balance dimensions and an organisation's ability to motivate its employees.

Balancing employees' work-life is the main challenge different organisations have to manage. This may justify why 'Fortune' magazine often shows respect to organisations which assist their employees in achieving such an intended balance (Muse *et al.*, 2008). In this regard, Rogers and Rogers (1989) define family friendly organisations as organisations which seek to enable employees to achieve balance between work and family life, whereas Redmond *et al.* (2006) compare work-life balance as organisational policies which intend to support employees in balancing work and family life.

As pharmacists, Egyptian females who work in governmental hospitals complain mainly about low salaries and long work hours (Mousa, 2017; Mousa & Abdelgaffar, 2017). Mousa (2017) reported that pharmacists, regardless of their gender, are not allowed to ask for holiday due to the complete dependence on them to handle remedies to patients. Moreover, the same previously mentioned study indicated that the main challenges facing Egyptian female pharmacists is that they are required to work an uninterrupted 12 hour night or day shift (called Nobatshiya). This means no attention to these pharmacists' families, fatigue, and morale. Some female pharmacists mentioned that they have to do these night or day shifts even during official national and religious holidays. On a voluntary basis, many male pharmacists volunteer to work in place of females on such days as the feasts. Accordingly, this research seeks to focus solely on public hospitals, Menoufia province, Egypt and to fill a gap in the management literature by identifying the effect of responsible leadership on work-life balance/imbalance among female pharmacists who work there. The author starts by providing a theoretical background for responsible leadership, work-life balance/imbalance and end his theoretical discussion by formulating hypotheses. Subsequently, the research methodology is presented in which the author elaborates his research plan and present the reliability analysis for their variables, besides illustrating the profiles of their respondents. Finally, the results are presented and discussed, and the conclusions also offer suggestions for future research.

LITERATURE REVIEW

Responsible Leadership

As indicated earlier, responsible leadership is still in its infancy, and a shortage in the research addressing it is markedly noted (Maak & Pless, 2006). Moreover, Waldman and Galvin (2008) have indicated that only after the demise of Enron and Arthur Anderson and the 2008 world economic crisis were the deficiencies of current leadership practices discovered. This prompted the emergence of responsible leadership as a dynamic to initiate social and political responsibility of businesses in addition to the political one. Furthermore, the concept of 'responsible leadership' itself is still confronting many challenges to be defined and adopted. Preez and Zyl (2015) argued that to fulfil social obligations businesses have to coordinate with different governments to achieve countries' stated goals of eradicated poverty, developed education, and accelerated economic growth, among many other different goals. This matter may not be applicable in all countries due to the burden of coordinating with governments, in addition to the bureaucracy of some governmental systems. Another main chal-

lenge facing responsible leaders is how to balance the trade-off between maximising share-holders' profit and caring about the well-being of both shareholders and businesses they serve (Voegtlin, 2011; Pless & Maak, 2012; Morland, 2015). Pless and Maak (2011) investigated what makes leaders responsible and how responsible leaders can be developed. On the other hand, Morgeson *et al.* (2010) indicate that both human resources management and organisational psychology experts can address the cultural challenge of leadership and determine the main competencies leaders need in order to be effective in fulfilling their societal responsibility. This can be undertaken when businesses start to understand carefully that the adoption of responsible leadership may provide an edge for creativity, innovation and, subsequently, competitive advantages (Preez & Zyl, 2015).

As illustrated above, a responsible leader acts correctly on behalf of both shareholders and stakeholders. That is why he or she should have all means, capabilities, resources and authority required to attain as many benefits as possible for all parties involved (Cameron, 2011). Hymavathi *et al.* (2015) indicated that responsible leadership is a social phenomenon guided by moral standards. The thought falls in line with Martin Luther King's question 'what are you doing for others?'. Given what has preceded, responsible leaders should listen to different views and work closely not only with people and departments within their organisations but also with various external stakeholders, like consumer groups, governmental officials and even environmentalists (Cunha, Rego, & Cunha, 2007).

Work-life Balance

Although Murphy and Doherty (2011) indicate that economic recession and tendency to reduce costs are considered the main reasons for the emergence of flexible work policies, especially in Europe, Gregory, Milner and Windebank (2013) consider work-life balance as an economic mechanism to raise the employment rate. Moreover, Bonoli (2005) and Anderson (1996) illustrate that supporting individuals to reconcile work and family obligations (e.g. paid employment with childcare and/or elderly care) is a priority for countries which seek welfare for their citizens. However, earlier research on work-life balance was conducted after 1990 to address, on the one hand, the importance of introducing work-life balance policies into the corporate workplace (Lee, 2005), and on the other hand, the relationship between work-life policies and some individual behaviour practices, like intentions to leave, the rate of turnover, the level of absenteeism and employee performance (Kim, 2012).

Anxo *et al.* (2013) highlight that designing and adopting work-life policies in a specific work setting entail an intersection for the following characteristics:

— demographic characteristics (gender, age, partner's response of collaboration),
— workplace characteristics (organisational culture, leaders' supportive tendencies, workload),
— socio-economic characteristics (the economic situation of a country, welfare policies).

As previously mentioned in the introduction, the importance of work-life balance stems from its ability to shape an employee's psychological well-being (Clark, 2000). Furthermore, in the organisational context, work-life policies have a positive relationship with employee's loyalty, performance and job satisfaction (Nelson, Quick, Hitt, & Moesel, 1990; Cegarra-Leiva, Sanchez-Vidal, & Cegarra-Navarro, 2012; Carlson, Witt, & Zivnuska, 2008). Also, these policies are negatively correlated with an employee's intention to leave, turnover, absenteeism and poor performance (Anderson, 1996; Avgar *et al.,* 2011, Mousa & Alas, 2016; Mousa, 2017). It is clearly noted that the majority if not all of the research on work-

life balance has been conducted in Western countries, in which individualistic interest dominates life and employees prioritise their personal goals and constantly aim to attain them usually before the goals of the organisation to which they belong (Earley, 1989).

Despite various work arrangements (e.g. part-time work, job sharing, career break, compressed hours, etc.) an organisation can undertake to assist employees in juggling their non-work activities, Drew and Murtagh (2005) pointed out that only 17 percent of senior managers employ some work arrangements to reduce their working hours and create time for non-work responsibilities. Apparently, this happens despite the advanced information technology and communication means businesses have applied over the past three decades (Eikhof, Warhust, & Haunschild, 2007). However, a correlation between presenteeism and financial incentives is considered the main reason for managers' unwillingness to benefit from communication technology advancement and various work arrangements (Elloy & Smith, 2003).

What is worth mentioning is the poor utilisation of family-friendly policies pertaining, in some settings, to organisational culture which considers long work hours as an indicator of an employee's organisational commitment (Drew & Daverth, 2009). However, there is a growing tendency to shift from long hours to a results-focused approach when measuring an employee's level of performance as illustrated by Drew, Humphrey, and Murphy (2003). Feminist advocators reflect that women currently not only perform a double effort but also spend longer time at the workplace in their attempt to find a place in male-dominated societies (Straub, 2007; Mousa & Alas, 2016). Furthermore, Drew *et al.* (2003) clarify that the situation is even worse when having a limited number of women at the organisational board or management level. This may be considered another struggle against the poor adoption of family-friendly initiatives in some organisational settings.

In the Egyptian society, Hofstede (1980) identifies four main characteristics constituting the Egyptian culture:

− power distance: reflects the tendency of the Egyptians to accept their leader's authority, whatever decisions he or she makes,
− uncertainty avoidance: reflects the Egyptian tendency to resist any potential change whatever its kind (political, social, etc.),
− individualism: reflects the strong power Egyptian families have in shaping an individual's behaviour,
− masculinity: reflects the superior level men have in the Egyptian society and that to a certain extent stems from Islamic religious values.

What preceded illustrates the struggle Egyptian women face not only at a societal level but also as employees. This also may justify why the UN report (2007) and Alas and Mousa (2016) mention that Egyptian women face many forms of discrimination and recommended prompt efforts to alleviate them.

Responsible Leadership and Work-life Balance

Eikhof, Warhust, and Haunschild (2007) affirm that adopting family-friendly policies in organisational setting guarantees the workplace harmony and subsequently an employee's work-life balance. Fu and Shaffer (2001) and Carnicer, Sanchez, Perez and Vela Jimenez (2003) identify the following three forms of work-life balance/imbalance that an employee may experience.

- time-based balance/imbalance: reflects the extent to which long work hours may affect non-work devoted time, and subsequently imbalance arises between work and non-work life,
- strain-based balance/imbalance: reflects the extent to which stress may arise as a result of an employee's attempt to reconcile work and non-work activities,
- behaviour based balance/imbalance: reflects an employee's sufferings which results from his inability to manage his behaviour and balance his work and non-work activities.

Like ethical leadership, responsible leadership fosters both individual and organisational performance (Brown & Trevino, 2006). However, Chun (2005) indicates that the main roles of responsible leaders are building social networks with in- and- out stakeholders, listening to various viewpoints, fulfilling societal responsible obligations besides differentiating between right and wrong. That is why the scope of responsible leadership is much broader than the ethical one, which focuses only on leader-follower relationships (Pless & Maak, 2012). To the best of the author's knowledge, no previous attempts have been made to address the effect of responsible leadership dimensions on the three forms of work life balance/imbalance. Accordingly, the following are the main hypotheses suggested by the author:

H1: Can responsible leadership dimensions (the aggregate of virtues, stakeholders' involvement, the principles of ethical values, the model of leaders' roles) affect time-based work and non-work balance/imbalance?

H2: Can responsible leadership dimensions (the aggregate of virtues, stakeholders' involvement, the principles of ethical values, the model of leaders' roles) affect strain-based work and non-work balance/imbalance?

H3: Can responsible leadership dimensions (the aggregate of virtues, stakeholders' involvement, the principles of ethical values, the model of leaders' roles) affect behaviour-based work and non-work balance/imbalance?

MATERIAL AND METHODS

To design the conceptual framework of this quantitative study, the author reviewed many previous studies conducted on either responsible leadership or work-life balance. To the best of the author's knowledge, no previous studies have focused on investigating the effect of responsible leadership dimensions on work-life balance forms. This may derive from the fact that the topic of responsible leadership is still in its embryonic stage, and not so many scholars have paid attention to it. The study was conducted on female pharmacists in Sadat city public hospitals in Menoufia (Egypt). Clearly, the focus on Sadat city public hospitals was not the main priority for the author of the present article at the first stage of his research. The intention was to include all public hospitals in Menoufia province, which is one of 27 provinces in Egypt, and to address as many female pharmacists as the author could, but unfortunately, this was not the case as the managers of Menoufia province public hospitals did not agree to cooperate either for the lack of time or for the sensitivity of the topic. Some of them consider the topic as an exposure of the country's style of leadership and the level of freedom allowed. Noticeably, Sadat city public hospitals executives reacted positively to the idea of data collection for this study.

As previously mentioned, the major problems facing Egyptian female pharmacists in public hospitals are working on an uninterrupted 12-hour basis and an inability to ask for any holiday even during national holidays (Mousa, 2017). Consequently, they are unable to fulfil any social obligations toward their families, constantly feel stressed to create time for even their rest, and eventually feel careless towards their work and often have the tendency to leave their positions. Addressing the effect of responsible leadership, which is based on the idea of fulfilling the main interests of both internal and external stakeholders without neglecting shareholders' profit. This means that work-life balance forms may shape a mutual benefit to be achieved for both the staff and the organisations.

The number of Egyptian pharmacists who work in public hospitals in 27 Egyptian provinces is about 30.000, 1.400 of whom work in Menoufia province public hospitals. The present article focuses only on female pharmacists. Four of these female pharmacists agreed to distribute 350 questionnaire forms to their colleagues and collect them. 225 out of the 230 collected forms were valid for analysis.

As the author decided to rely on multiple regressions, an a-priori Sample Size Calculator was used to determine the minimum required sample size on which the author could depend. Given the desired probability level (0.05), the number of predictors in the model (3), the anticipated effect size (minimum 0.079), and the desired statistical power (0.8), the minimum sample size the author could utilise is 99 questionnaire forms.

The fact that all public hospitals in Sadat city have six pharmaceutical departments (intensive care pharmaceutical department, external pharmaceutical department, liver disease pharmaceutical department, country support pharmaceutical department, national insurance pharmaceutical department and internal pharmaceutical department) urged the author to employ stratified random sampling. Participants are classified into six homogenous subgroups to reduce bias and ensure valid representation. The procedures of distributing, following up and then collecting the distributed questionnaire forms extended for four weeks, and all the questionnaire forms were distributed in Arabic to motivate the participants to respond and to ensure more accurate responses.

Measures

Since research conducted on responsible leadership is still quite limited, there is no generally accepted model of responsible leadership. Accordingly, the author focused on the four dimensions (the aggregate of virtues, stakeholders' involvement, the model of leaders' roles and the principles of ethical values) of responsible leadership developed by the qualitative study of Antunes and Franco (2016). Consequently, the following are the four sections of the qualitative form created by the author of this article:

− the aggregate of virtues:

  o My hospital cares about public-related aspects like education, health and poverty.
  o My hospital differentiates between right and wrong.

− stakeholder involvement:

  o My organisation involves in-and-out of organisation's viewpoints when making decision.
  o My hospital has long lasting relationships with various stakeholders.

− the model of leaders' role:

  o My hospital respects diversity in and around it.
  o My hospital considers social responsibility as a part of organisational culture.

− the principles of ethical values:

  o I feel my managers are sincere when dealing with in and out stakeholders.
  o My organisation accepts critique from in and out hospital stakeholders.

Table 1 presents the reliability analysis for responsible leadership challenges using Cronbach's alpha.

Table 1. Reliability analysis (responsible leadership dimensions)

Scale name	Number of items	Coefficient alpha values
Responsible leadership dimensions	8	0.795
Aggregate of virtues	2	0.808
Stakeholder involvement	2	0.810
Model of leader's role	2	0.801
Principles of ethical values	2	0.791

Source: own study.

Work-life balance/imbalance: Despite the various approaches to work-life balance, the present study focuses on the three forms of work-life balance (time-based balance/imbalance, strain-based balance/imbalance and behaviour-based balance/imbalance) identified by Fu and Shaffer (2001) and Carnicer *et al.* (2003). These three forms represent the main challenges of work/non-work activities applicable to senior or management level (Murphy & Doherty, 2011). The pharmacists in the chosen hospital are supervised by only one pharmaceutical departments manager besides the executive manager of the hospital. They have no other forms of supervision, so they are considered at a senior level. The following are the three sections of the questionnaire form distributed by the author of this article:

− time-based balance/imbalance:

  o Doing my best in my work entails a reduction of time devoted to my family.
  o Long work hours mean that I am a good employee.
  o My hospital adopts flexible timing policy to promote work/ life balance time.

− strain-based balance/imbalance:

  o I feel stressed towards my family obligations.
  o I feel stressed to prove that I am a good employee and a good family member.
  o My hospital encourages a smooth balance of work/ family life for me.

− behaviour-based balance/imbalance:

  o My work life interferes with my family life.
  o Sometimes, I face a conflict with my hospital to balance my work/ life time.
  o My organisation cares only about my work time.

Table 2 is the reliability analysis for work-life balance/imbalance using Cronbach's alpha (Sekran, 2003).Table 3 shows the demographic variables of the respondents.

Table 2. Reliability analysis for work- life balance/imbalance

Scale name	Number of items	Coefficient alpha values
Work-life balance/imbalance	**9**	**0.871**
Time-based balance/imbalance	3	0.822
Strain-based balance/imbalance	3	0.809
Behaviour-based balance/imbalance	3	0.702

Source: own study.

Table 3. Profile of the respondents

Demographic variables	Items	Count
a) Gender	Male	0
	Female	225
b) Age	below 25 years	19
	26-30 years	150
	31-35 years	51
	36-40 years	5
	41-45 years	0
	46-50 years	0
	More than 50 years	0
c) Marital States	Single	70
	Married	125
	Other	30
d) Level of Education	Bachelor	15
	Bachelor + Diploma	200
	Master	10
e) Level of Income	EGP 1200	0
	EGP 1300-2500	225
	EGP 2500-4000	0
	EGP 4000-5500	0
	Above 5500	0
f) Organisational tenure	Less than 1 year	5
	1-3 years	20
	4-6 years	200
	7-9 years	0
	10-12 years	0
	Above 15 years	0
g) Religion	Muslim	200
	Christian	25
h) Work Bases	Full time	225
	Part time	0

Source: own study.

RESULTS AND DISCUSSION

The main purpose of this research is to understand how much of the variation in time, strain and behaviour-based balance/imbalance can be explained by responsible leadership dimensions (the aggregate of virtues, stakeholder involvement, the model of leader's role and the

principles of ethical values). The use of multiple regression analysis assists in understanding the unique contribution of each of the responsible leadership dimensions.

Testing the research hypotheses is necessary to validate the hierarchical multiple regression analysis. In order to evaluate the regression models in the hierarchical multiple regressions in the present study, four models were used. In the first model, the independent variable is the Aggregate of virtues and the three elements of Work-life balance/imbalance will be used as separated dependent variables. In the second model, the independent variables are the Aggregate of virtues and Stakeholder involvement. Notably, the second Model is not a completely separate model but a variation of Model 1 with one variable added. In the third model, the independent variables are the Aggregate of virtues, Stakeholder involvement and the Model of leaders' role. And finally in the fourth model, the independent variables are the Aggregate of virtues, Stakeholder involvement, the Model of leaders' role and the Principles of ethical values.

Each model is a standard multiple regression procedure with the variables in that model entered simultaneously. Therefore, each model has measures which show how well that particular model fits the data, and these are presented in Table 4.

Table 4. Summary of the regression analyses of the models

Var.	Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	F	df1	df2	Sig. F Change
D1	1	0.653	0.613	0.619	7.20155	0.613	11.994	1	223	0.000
	2	0.769	0.725	0.687	4.19765	0.112	41.496	1	222	0.000
	3	0.797	0.763	0.752	7.19238	0.038	49.230	1	221	0.003
	4	0.833	0.804	0.780	7.18390	0.041	52.469	1	220	0.000
D2	1	0.067	0.004	0.004	0.20268	0.004	0.507	1	223	0.067
	2	0.711	0.692	0.676	3.20277	0.692	35.900	1	222	0.000
	3	0.834	0.795	0.762	2.14560	0.103	40.219	1	221	0.000
	4	0.897	0.850	0.843	7.13214	0.055	42.757	1	220	0.000
D3	1	0.667	0.624	0.604	8.20268	0.624	20.507	1	223	0.000
	2	0.741	0.720	0.695	5.20277	0.096	34.900	1	222	0.000
	3	0.794	0.785	0.762	10.14560	0.062	43.219	1	221	0.000
	4	0.827	0.808	0.783	9.13214	0.023	50.757	1	220	0.767

Note: D1, D2 and D3 are the dependent variables which are the three aspects of Work-life balance/imbalance.
D1 = time-based balance/imbalance; D2 = strain-based balance/imbalance; D3 = behaviour-based balance/imbalance
Source: own study.

The most important measurement used to interpret a hierarchical multiple regression is R^2, which represents the variation in the dependent variable explained by the independent variables. The results show that each model explains a greater amount of the variation in the dependent variable as more variables are added. Essentially, the models here get better at predicting the dependent variable.

In the case of the dependent variable Time-based balance/imbalance in Model 1, in which the Aggregate of virtues alone is the independent variable, R^2 is 0.613, with statistical significance of $p < 0.005$. Due to the inclusion of Stakeholder involvement as an additional independent variable, R^2 increased by 0.0112 (the variance explained increased by 11.2%), and this increase is statistically significant ($p < 0.0005$) and F increased to 41.496. In other words, Stakeholder involvement adds statistical significance

to the prediction of the Aggregate of virtues. In sum, the addition of Stakeholder involvement to the prediction of the Aggregate of virtues (Model 2) led to a statistically significant increase in R^2 of 0.0112 and $F(1.222) = 41.496$, $p < 0.0005$.

In the third Model, where the Model of leaders' role is added as independent variable, R^2 increases by 0.038 (the variance explained increased by 3.8%), and this increase is statistically significant ($p < 0.0005$). In sum, the addition of the Model of leaders' role to the prediction of the Aggregate of virtues (Model 3) led to a statistically significant increase in R^2 of 0.038 and $F(1.221) = 49.230$, $p < 0.0005$.

With regard to the last Model (4), where the Principles of ethical values is added as an independent variable, R^2 increases by 0.041 (the variance explained increased by 4.1%), and this increase is statistically significant ($p < 0.0005$). Thus, the addition of the Principles of ethical values to the prediction of the Aggregate of virtues (Model 4) brought about a statistically significant increase in R^2 of 0.041 and $F(1.220) = 52.469$, $p < 0.0005$.

In the case of the dependent variable Strain-based balance/imbalance in Model 1, in which the Aggregate of virtues stands alone, there is no statistical significance of $p < 0.005$. Due to the inclusion of Stakeholder involvement as an additional independent variable, R^2 is 0.692, and this increase is statistically significant ($p < 0.0005$) and $F= 35.900$. In other words, Stakeholder involvement adds statistical significance to the prediction of the Aggregate of virtues. In the third Model where the Model of leaders' role is added as an independent variable, R^2 increased by 0.103 (the variance explained increased by 10.3%), and this increase is statistically significant ($p < 0.0005$). Therefore, the addition of the Model of leaders' role to the prediction of the Aggregate of virtues (Model 3) has resulted in a statistically significant increase in R^2 of 0.103 and $F(1.221) = 40.2190$, $p < 0.0005$.

Concerning the last Model (4), where the Principles of ethical values is added as an independent variable, R^2 increased by 0.055 (the variance explained increased by 5.5%), and this increase is statistically significant ($p < 0.0005$). Hence, the addition of the Principles of ethical values to the prediction of the Aggregate of virtues (Model 4) led to a statistically significant increase in R^2 of 0.055 and $F(1.220) = 42.757$, $p < 0.0005$.

In the case of the dependent variable Behaviour-based balance/imbalance in Model 1, in which the Aggregate of virtues alone is the independent variable, R is 0.624, with statistical significance of $p<0.005$. Due to the inclusion of Stakeholder involvement as an additional independent variable, R^2 increased by 0.96 (the variance explained increased by 9.6%), and this increase is statistically significant ($p < 0.0005$) and F increased to 34.900. In other words, Stakeholder involvement adds statistical significance to the prediction of the Aggregate of virtues. As a result, the addition of Stakeholder involvement to the prediction of the Aggregate of virtues (Model 2) also led to a statistically significant increase in R^2 of 0.096 and $F(1.222) = 34.900$, $p < 0.0005$.

In the third Model, where the Model of leaders' role is added as an independent variable, R^2 increased by 0.062 (the variance explained increased by 6.2%), and this increase is statistically significant ($p < 0.0005$). In summary, the addition of the Model of leaders' role to the prediction of the Aggregate of virtues (Model 3) brought about a statistically significant increase in R^2 of 0.062 and $F(1.221) = 43.219$, $p < 0.0005$.

In the last Model (4), where the Principles of ethical values is added as an independent variable, R2 increased by 0.023 (the variance explained increased by 2.3%), and this increase is statistically significant (p < 0.0005). As such, the addition of the Principles of ethical values to the prediction of the Aggregate of virtues (Model 4) resulted in a statistically significant increase in R2 of 0.023 and F(1.220) = 50.757, p < 0.0005.

Table 5. Hierarchical Multiple Regression predicting Time-based balance/imbalance as an element of Work – life balance/imbalance from the Aggregate of virtues, Stakeholder involvement, the Model of leaders' role and the Principles of ethical values

		Var.	B	β	R2	F	ΔR2	ΔF
D1	Model 1	(Constant)	2.090		0.613	11.994	0.613	11.994
		Aggregate of virtues	0.425	0.388				
	Model 2	(Constant)	2.450		725	30.425	0.687	41.496
		Aggregate of virtues	0.405	0.368				
		Stakeholder involvement	0.232	0.199				
	Model 3	(Constant)	3.151		0.763	35.003	0.752	49.230
		Aggregate of virtues	0.435	0.409				
		Stakeholder involvement	0.367	0.309				
		Model of leaders' role	0.250	0.193				
	Model 4	(Constant)	2.115		0.804	45.054	0.780	52.469
		Aggregate of virtues	0.483	0.440				
		Stakeholder involvement	0.373	0.324				
		Model of leaders' role	0.268	0.219				
		Principles of ethical values	0.177	0.122				

Note: *N*=225; *p*<0.05
Source: own study.

Table 6. Hierarchical Multiple Regression predicting Strain-based balance/imbalance as an element of Work-life balance/imbalance from the Aggregate of virtues, Stakeholder involvement, the Model of leaders' role and the Principles of ethical values

		Var.	B	β	R^2	F	ΔR^2	ΔF
D2	Model 1	(Constant)	4.403		0.004	0.507	0.004	0.507
		Aggregate of virtues	0.027	0.067				
	Model 2	(Constant)	4.668		0.692	25.703	0.676	35.900
		Aggregate of virtues	0.036	0.027				
		Stakeholder involvement	0.496	0.391				
	Model 3	(Constant)	5.023		0.795	36.316	0.762	40.219
		Aggregate of virtues	0.122	0.098				
		Stakeholder involvement	0.497	0.382				
		Model of leaders' role	0.427	0.388				
	Model 4	(Constant)	4.840		0.850	39.255	0.843	42.757
		Aggregate of virtues	0.171	0.073				
		Stakeholder involvement	0.391	0.376				
		Model of leaders' role	0.408	0.386				
		Principles of ethical values	0.387	0.327				

Note: *N*=225; *p*<0.05
Source: own study.

Table 7. Hierarchical Multiple Regression predicting Behaviour-based balance/imbalance as an element of Work – life balance/imbalance from the Aggregate of virtues, Stakeholder involvement, the Model of leaders' role and the Principles of ethical values

		Var.	B	β	R2	F	ΔR2	ΔF
D3	Model 1	(Constant)	2.477		0.624	20.507	0.604	20.507
		Aggregate of virtues	0.196	0.165				
	Model 2	(Constant)	2.724		0.720	30.778	0.695	34.900
		Aggregate of virtues	0.288	0.252				
		Stakeholder involvement	0.390	0.260				
	Model 3	(Constant)	4.558		0.785	37.187	0.762	43.219
		Aggregate of virtues	0.285	0.177				
		Stakeholder involvement	0.376	0.251				
		Model of leaders' role	0.426	0.381				
	Model 4	(Constant)	3.586		0.808	45.870	0.783	50.757
		Aggregate of virtues	0.214	0.197				
		Stakeholder involvement	0.352	0.235				
		Model of leaders' role	0.299	0.181				
		Principles of ethical values	0.431	0.391				

Note: N=225; p<0.05
Source: own study.

Hierarchical multiple regressions are run to determine if the addition of three more variables: Stakeholder involvement, the Model of leaders' role, the Principles of ethical values as part of Responsible Leadership would improve the prediction of Time-based balance/imbalance over and above the Aggregate of virtues. The full model of Responsible Leadership and Work-life balance/imbalance for predicting Time-based balance/imbalance (Model 4) is found to be statistically significant – R^2 =0.804, $F_{(1.220)}$ = 45.054.433, $p < 0.0005$, and adjusted R^2 =0.780.

Hierarchical multiple regressions are run to determine if the addition of Stakeholder involvement, the Model of leaders' role, the Principles of ethical values as part of Responsible Leadership would improve the prediction of Strain-based balance/imbalance over and above the Aggregate of virtues, as the Aggregate of virtues is not statistically significant for this model. The full model of Responsible Leadership and Work-life balance/imbalance for predicting Strain-based balance/imbalance (Model 4) is statistically significant – R^2 =0.850 $F_{(1.220)}$ = 39.255, $p < 0.0005$; adjusted R^2 =0.843.

Hierarchical multiple regressions are run to determine whether the addition of involvement, the Model of leaders' role, the Principles of ethical values as part of Responsible Leadership – would improve the prediction of Behaviour-based balance/imbalance over and above the Aggregate of virtues. The full model of Responsible Leadership and Work-life balance/imbalance for predicting Behaviour-based balance/imbalance (Model 4) is statistically significant – R^2 =0.808 $F_{(1.220)}$ = 45.870, $p < 0.0005$; adjusted R^2 =0.783.

The importance of this topic pertains to the recent changes in the Egyptian labour market which occupy a tremendous space not only in the Egyptian social discourse but also in various international social media outlets. The Egyptian labour market in which men used to have superiority, authority and domination has lately witnessed an increasing active partici-

pation of Egyptian women, especially with an increasing number of success stories of Egyptian female managers, entrepreneurs and executives in both public and private organisations (Mousa & Abdelgaffar, 2017). It is obvious that masculinity-oriented tendency, uncertain work environment, changing job roles, and social class discrimination that many Egyptians face did not curb Egyptian women from penetrating the labour market there.

The research unit of this current study is female pharmacists, and the research place is public hospitals in Menoufia province in Egypt. This study was inspired by the results of Mousa (2017) which convey the suffering experienced by Egyptian female nurses working in the Egyptian public health sector. The interviews included in this study assert that Egyptian female nurses struggle due to long working hours, male domination, and work overload because of their small number and/or the desire to prove themselves in the male-dominant society. This study is mostly about discrimination and managing cultural diversity in the Egyptian public health sector and it touches on the challenges of balancing work and non-work activities and time. In the present study, the author found it a very pioneering attempt to address the marginalisation of females in the Egyptian public sector. The present study, thus, focuses on investigating the effect of responsible leadership dimensions (the aggregate of virtues, stakeholder engagement, and leader-followers model) on three forms of work-life balance/imbalance among the female pharmacists in Menoufia public hospitals (Egypt).

The first hypothesis of the present study is whether responsible leadership dimensions affect time based balance/imbalance, and the results show that only the aggregate virtue has a significant effect on time-based balance/imbalance. This result seems logical because the main philosophy of the aggregation of virtue is to urge organisational leaders to fulfil their socio-political responsibility towards their surrounding environment. This result is a valid contribution to the general public with respect to areas such as education, health, and supporting people with disabilities. In this case study, female pharmacists, as reported in the conducted interviews, work 12 hours a day, and thus cannot be expected to manage their non-work activities and cannot devote time to discuss or promote their hospitals' care towards public well-being, which is the main aim of the aggregate virtue.

The same can be said about the results of testing the second hypothesis which showed that all dimensions of responsible leadership affect strain-based balance/imbalance except the aggregate of virtues. This result sounds logical also as what a hospital or a workplace is doing for others in its surroundings might not be an urgent concern for female pharmacists who mainly struggle to find time for their social and family obligations. The results of the third hypothesis indicate that the aggregate of virtue is not considered a significant statistical predictor of female pharmacists' behaviour-based balance/imbalance. Consequently, neither would the hospital be able to undertake its social responsibilities, nor would it be able to support female pharmacists' tendency and subsequently attempts to balance their work/non-work activities.

The previous results reflect that female pharmacists cannot be considered an active participant in calling for or contributing to the general well-being of their surrounding stakeholders without having the means, resources and authority required to encourage their workplace to handle its responsibilities as indicated by Cameron (2011). Additionally, female pharmacists will not think about others without having attained their psychological self-actualisation first. Such psychological self-actualisation involves having reasonable work hours, a relevant level of performance, sufficient days off and

holiday, and mostly persuasive open work-related communications as well. Given the previous results, the author of the present study unintentionally found himself raising the questions concerning when and to what extent female pharmacists should motivate their leaders to undertake their societal objectives and whether there is any opportunity in such a climate of stress to think about public-related aspects.

Needless to say, the results of the present study encourage management academicians and practitioners to look for the main conditions required for the effective adoption of responsible leadership in the Egyptian public context. Moreover, the same can be said about work-life balance which is considered by Andersen (2000) as a priority for countries which seek welfare for their citizens. Accordingly, one could ask about the efficacy of the current socio-political climate that Egypt is witnessing and the role of this climate in motivating public organisations like hospitals to address the forms of work-life balance/imbalance in their human resources management agenda.

CONCLUSIONS

Apparently, employees' attitude towards societal integration and subsequently citizenship would not be attained without a feeling of fairness and inclusion in their workplace. Many studies (e.g., Pless, 2007; Mousa, 2017) have discussed the importance of equal employment opportunity approach in recruiting employees. However, the approach of equal employment should expand to cover assisting employees, especially females, in balancing their work/non-work activities. In Egypt, the view of seeing the man as the sole breadwinner of the family should be shifted to reflect the current existence of woman in workplace. Accordingly, organisational elites should create a mechanism to consider female work-life balance as a part of Egyptian public policy. Consequently, public organisations like hospitals have to treat women pharmacists responsively as the main part of stakeholders who are in need for flexible work hours, active participation in decision making, and clear empowerment in workplace. Logically, previous needs of female pharmacists are included within the scope of responsible leadership dimensions. Unfortunately, a lot of uncertainty exists, concerning their real adoption in the Egyptian public health organisations. In fact, it is the time for the whole society to re-evaluate the current style of leadership and its implications in aspects such as female work-life balance in different organisational settings.

In conclusion, this study investigates whether responsible leadership dimensions can affect female pharmacists' work-life balance/imbalance in public hospitals in Menoufia province, Egypt. This research may be subject to criticism because it focuses only on a single Egyptian province – a matter that does not give way to a variety of views. Furthermore, the author overlooked some moderating variables, such as the pharmacists' engagement, inclusion, job autonomy and so on.

For future studies, the author suggests testing the same propositions with physicians, nurses, and other categories of employees in Egyptian public hospitals. Moreover, a qualitative interdisciplinary study is urgently needed to identify the existence of responsible leadership in the Egyptian public health sector. Furthermore, a multi-disciplinary study for scholars from fields likes organisational psychology, organisational communication, human resources management, public administration, public policy and cultural diversity management is also needed to propose a mechanism to balance female pharmacists' work/non-work activities and to find solutions for the double amount of

time and effort required from them in performing their job roles. Finally the same hypotheses of this study should be tested in other private and non-for profits Egyptian organisations to explore the female work/life situations there as well.

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Managers and Leaders in Need of Entrepreneurial Competences

Agnieszka Postuła, Julita Majczyk

A B S T R A C T

Objective: The purpose of this article is to provide insight into how managers fit their roles and what tasks they perform. It addresses leaders and action they undertake. In particular, the study aims to focus on competences which comprise specific skills and experience, knowledge, and cognitive abilities to understand, analyse, or reason.

Research Design & Methods: Qualitative research was done. Individual method within an ethnographic study includes an anthropological interview. In total, 16 participant in large companies were interviewed. Interviewees were managers and leaders on different organisational levels. The study used the principles of the grounded theory approach for analysing data and is based on the results of longitudinal research.

Findings: The results revealed that managers usually follow imposed goals while leaders are expected to create their own directions of organisational development. Although respect and authority might be an integral part of managers' job, as opposed to leaders, they are not indispensable. It is concluded that leaders need to deal with issues which are strategic for a company and much more important than it is in the case of managers who usually concentrate on finding solutions for everyday problems.

Implications & Recommendations: The findings point to how competencies influence an organisational role. Even if they are interrelated, there is no need to demonstrate all of them to become a leader.

Contribution & Value Added: This article offers a conceptualisation of how the theory corresponds with practice and points out that immaterial, immeasurable factors matter.

INTRODUCTION

Every person takes on specific roles. Each role involves a set of competencies, behaviours or attitudes. It is all context sensitive. You need to have specific competencies when you want to lead effectively across cultures (Mendenhall, 2001), or when you want to lead children's team sports successfully. And when you already do your job, getting challenging tasks allows you to develop further your competencies or acquire new skills. That helps to build confidence in your role (Kram, 1988).

In this study, we aim to address a manager's and a leader's role by placing the focus of the research on competencies. Drawing on competencies assigned to a manager or a leader, the authors describe and detail a study based on semi-structured interviews and the grounded theory approach for analysing data. That is to explain what differs managers from leaders and what entrepreneurial competencies can be utilised by them.

Most of the research investigating competencies of managers or other groups aiming to be ones (e.g. students of business schools) focuses on evaluation and assessment (Tyrańska, 2017; Roszyk-Kowalska, 2016; Machado, Zambrano, & Montes de Oca, 2015; Spychała, 2015). Some publications consider competencies and their applications in general (Sitko-Lutek, 2013; Tyrańska, 2015) or relations between workers' entrepreneurial attitudes and the internalisation of processes (Kosała, 2015), or education processes (Kosała, 2014; Wach, 2013). There is much less research and publications concentrating on relations between leaders, managers and entrepreneurs (Postuła & Brzozowska, 2016) even if all these professions/roles are strongly connected to each other. Nowadays, when the era of managers seems to change dramatically (Koźmiński, 2008), there is scarcity of such research. We decided to combine leaders' and managers' perspectives and relate it to their competencies, both managerial and entrepreneurial. The purpose of this article is to provide an insight into how managers perform tasks and leaders act using their particular competencies. The whole presented analysis is based on the results of longitudinal research.

LITERATURE REVIEW

Entrepreneurial and Managerial Competencies

A competency varies depending on situations or times, it is a capability or ability used in certain circumstances (Boyatzis, 2008). Abilities as knowledge, skills and attitudes allow to perform tasks at the appropriate level (Filipowicz, 2004). It triggers specific behaviours, reveals the way of thinking. Following Woodruffe's definition (1991), a person's behaviour reinforces competent performance while aspects of the job are fulfilled.

A person can demonstrate it, which gives us an opportunity to measure his/her performance. When a person's capability of acting is consistent with individual needs, the environment expectancies, or job demands, it is said the person has reached maximum performance (Boyatzis, 1982). Job demands can derive from a role responsibilities or ongoing tasks. We divide competences into two categories: managerial and entrepreneurial ones. Those required to run a business in a successful manner are described as managerial competences, whereas a group of competences significant to the development of businesses and the implementation of entrepreneurship are entrepreneurial competences

(Bamiatzi *et al.*, 2015). Entrepreneurial drive and the capitalisation of entrepreneurial opportunities which are components of entrepreneurial competences have an effect on both financial and non-financial performance (Ng, 2016). Boyatzis (1982) enlisted numerous competencies. Some related ones are grouped (Boyatzis, Goleman, & Rhee, 2000).

In the entrepreneurial cluster we identify initiative – taking responsibility for self-driven action, and efficiency orientation – setting goals, motivating people to act, focusing on tasks. The interpersonal cluster comprises: concern with impact – seeking and using methods of influence, oral presentation skills – an ability to use effective language, use of socialised power – developing formal and informal relations among people to motivate them to achieve objectives, or managing group processes – the group's identity building, developing group roles. The leadership cluster embraces conceptualisation – inductive reasoning to identify patterns and relationships, creative thinking to develop ideas and solutions, self-confidence – believing in oneself, ideas, values, and again oral presentation skills. The goal and action management cluster consists of the aforementioned initiative and efficiency orientation, concern with impact, and diagnostic use of concepts – deductive reasoning allowing to turn concepts into possibilities.

In the concept of 'emotional intelligence', Goleman (1999, pp. 48-50) grouped managerial competencies identified by Boyatzis (1982) into self-management and relationship management competencies.

In the paper from 2008, Boyatzis (2008, p. 7) divided competencies into three categories:

− specific skills and experience,
− knowledge,
− cognitive competencies as an ability to understand, analyse, reason.

Weber (2004) says than an organisation performs best when competencies are seen as a highly valuable asset treated as the main cause for climbing the career path by workers. According to his view, organisations ought to evaluate each person by the criteria measuring the effectiveness of the task performance. Following the Peter principle (Peter, 1975), an organisation selects a candidate for a vacancy by his or her competencies demonstrated while acting in the current role, not by the abilities expected in the intended role.

There is no easy way to verify a candidate's competency statements. Hidden information (Arrow, 1969) can play a crucial role while selecting workers, assigning them tasks. However, if competencies are proven, they add value to the whole organisation (Stewart, 1997).

Manager and Leader in Theory

A leader is a person able to influence psychological and institutional resources to motivate, trigger necessary actions (Burns, 1978). Patterns of how leaders behave, what they do and what values they indicate have an immense impact on the evolution of the management concepts. Business leaders play an active role in the development of the economic environment, being an inspiration for others to trigger their own actions. In the classic sense of that term, a leader builds the expected future state of the organisation by enabling people who are under his/her influence to take actions to achieve organisational goals. However, in the context of complex adaptive systems, a leader is not able to drive changes or control future results (Plowman *et al.*, 2007). Hence, she/he takes on a supporting role, for example by encouraging innovative solutions.

Leaders can be analysed in terms of the process of becoming a leader and perceived in this way by members of the environment, or by looking at them through the prism of efficiency and performance, as they affect actions taken by the management staff in the organisation. They play a symbolic role for the environment, but also act as representatives of an economic entity (O'Connell & Bligh, 2009). To define someone a leader, we can adapt competence based approach which focuses on identifying what traits and skills are crucial to be perceived as one (Northouse, 2004; Grint, 2005). A leader has a vision of the organisation's goal, which is to define a reality (Bennis, 1989). Their responsibility is to build and maintain relationships with various groups of stakeholders (Maak & Pless, 2006). During a crisis, they are expected to implement major changes to the organisation which would have a positive impact on the acquisition of knowledge and the involvement of employees in developing solutions to problems (Mohrman & Worley, 2009).

Mintzberg (1975) pointed out that a manager's roles arise from formal authority. In line with the interpersonal category, a manager is a leader. As leaders, managers have to set goals, bring together the organisation's needs and the organisation's members' needs. They establish organisational and material conditions which support employees' activities, as well as motivate a team to achieve goals. Currently, managers with specific competencies compete successfully on the market. Companies have in mind that the selection of managers must be followed by creating an ability to identify, work on new, or cultivate further their competencies (Wu & Lee, 2007).

A manager perceived as a leader is a visionary, an intelligent, moral and benevolent person who releases energy to act vested in people (Teo-Dixon & Monin, 2007). Bennis and Nanus (1985, p. 21) noted that leaders do the right thing, whereas managers do things right.

A competence indicates the possession of knowledge, required skills, and an attitude enables a person to act effectively in a wide variety of situations or jobs (Filipowicz, 2004, p. 17). They are a cluster of categories which are related, interconnected (Filipowicz, 2004, pp. 36-37), and they can occur at any stage of a person's career.

All these elements named above allow to qualify managers and leaders as professions (Shein, 1968). A profession is understood as a set of scripts, patterns of actions in running a specific business or managing people or situations. Managers and leaders are professionals because of the proper qualifications, education and competences, not owing to individual relations or private connections. Their work is a profession because the whole community has its own ethical standards.

We investigate mangers and leaders not only considering their professional role, but also a societal role which is the second dimension of these professions in addition to the organisational one (Postuła, 2010). The societal role consists of the expectations of the outsiders - people who stay close to managers and leaders in their everyday activities. The analysed rankings are based on this perspective. In this way we got the material straight from the investigated group, as well as from their closest work companions. Considering these dimensions of the social role, we analysed how the role of a manager and a leader is constructed.

MATERIAL AND METHODS

The goal of this research was to identify social competences necessary for managers and leaders to perform their work. In particular, we focused on differences in managerial and

entrepreneurial competences and the role they play in constructing the role of both managers and leaders. Interlocutors were selected from small, medium-sized and large companies (also international corporations) representing different branches on the Polish market.

The material presented in this article was obtained from two sources. Both of them are ongoing ethnographic projects. Ethnography, being a specific methodology, is a natural consequence of the adopted view on the social reality. This implies that the evidence collected and presented and the conclusions drawn on this basis may provide an input for multidimensional discussions, yet will not feed into establishing the one and only right course of action (Willis, 2005).

Traditionally, qualitative methods (an anthropological interview) formed the basis for this research (Jansen, 2015). An anthropological interview is a fundamental research tool helping to collect evidence in the field. It is an undirected (non-standardised and unstructured) conversation aiming to induce interviewees to talk freely about their surrounding reality. The researcher's 'anthropological mind-set' (Czarniawska-Joerges, 1992) is a desirable state of mind helping to see the stories heard as completely new and interesting phenomena on the one hand. On the other hand, it allows to ask questions which do not suggest anything to interviewees but enable them to tell their own stories.

We combined interviews collected by two researchers. Interviewees were managers and leaders on different organisational levels. Altogether, we have sixteen interviews. They were conducted in different circumstances, some at the workplace during working hours, some after work, some at respondents' homes. The longest interview lasted 25 hours, the shortest around 40 minutes. In general, we collected 212 pages of the typescript.

Drawing on competencies and other key elements of being a manager, a leader, the authors conduct an interview study with practitioners. That is to explain what differs managers from leaders and what entrepreneurial competencies can be utilised by them.

We are aware of the weaknesses of the ethnographic methods. On the one hand, we know that our sample is not big enough to abstract conclusions for the whole population. On the other hand, owing to open interviews we had a chance to immerse deeper into our field and learn the investigated group better. The advantage of this approach let us not only enumerate competences crucial for interlocutors, but also understand their importance in managerial work.

RESULTS AND DISCUSSION

Draft horses and racehorses are in each good stable. [PP]

We are to present definitions of managers and leaders in this part. Both managers and leaders have to deal with other people and they need to influence their behaviour to reach organisational goals. To cooperate with other people successfully, they have to possess a specific attitude which arises from personal competencies. We listened to several managers and leaders and we obtained stories about managing people. We also witnessed deep reflections on their everyday work. To point out how our interlocutors define managers and leaders we provide some quotations:

A manager is a person who has been given power. [TN]
A leader is a person you listen to, you follow *without* an *official appointment*. [TN]

[Leaders], *but not* appointed *managers, are those visionaries*, *innovators*, *experts* (…) *maybe I would call myself a leader more than* a *manager*. [TN]

Managers are described as professionals with specific roles. They supposed to be coordinators of everyday work. They should also be an example for other team members. They should plan work for themselves and others, organise single tasks, control subordinates and plan the implementation. These are simple manager roles named earlier by Mintzberg (1975) or administrative functions enlisted by Fayol (1947, cited by Piotrowski, 2001).

It seems to me that I have to be able to motivate people to do something, sometimes unwanted things, to do tasks workers do not want to do, such as to stay late in the office because of tight deadlines, because something falls apart. Motivate, convince people so that they wanted to do it. Also it seems to me that we need to have the ability to communicate difficult information in a painless way. [PC]

In addition to traditional managerial functions, interlocutors noticed other virtues – 'psychological' ones, as they call them – that can be helpful when managing people.

It is important to collaborate with people and understand how the group which you manage works and how to adjust workers well to do those tasks well. It seems to me that this is such a psychological approach, to extract from the person you have the potential that yields results, or to find such a person. [DR]

Social competence, interpersonal, simply to recognize and evaluate a worker's ability, not to give him a task he cannot handle, the task that makes him feel rather uncomfortable. Not to force him to do something that is not his. Be able to share work and split responsibilities in the way which makes the person who is assigned to do it feel convinced, not forced. Otherwise, he or she can do the task wrong, come back to me and I need to improve. [PC]

Managers and their co-workers (team members) also expect managers to be fair in their actions and not necessarily submissive. That means they are perceived as strong personalities that are able to influence people and organise their work. It also indicates that managers do not have to use power tactics to be successful because their virtues (like being fair or strong) make people listen and follow them. Good managers achieve their authority by being consistent. This is a very specific virtue which is also attributed to leaders. In our opinion, consistency is even more a feature of leaders than managers. Only outstanding managers can take pride in consistency/integrity – as they call it.

I want to say consistency/ integrity, you do not build it in a single moment, yes, it is the whole process, you build throughout your life, entire career, right from the beginning. Even if at the very beginning of your career you lose this integrity or consistency, do something against yourself or something unethical, something that you believe was not fair, everyone will find out about this, and I'm not talking about such decisions that you made because of the lack of knowledge, right, but when your acts are premeditated, while being conscious, or against yourself, or against the ethical principles. Firstly, you lie or cheat and such behaviour becomes a habit, and you cannot eradicate it, and secondly (…) when you lack precisely this consistency, you encounter in the course of your career more and more people who do not want to work with you, because you cheat (…). And vice versa, if you

have followed fair, ethical path and had proper relationships with people with whom you worked, behaved professionally, not in the sense of beautiful voice, or a nice suit, but fair, consistent, you work with various people within projects in different companies, with complete strangers, but they know you, they say: 'I heard from Maciek we will work well.' [TN]

In addition to consistency, in the eyes of managers, leaders should be responsible and they are supposed to lead the team or other groups of people. Their task is to bring the future to the organisation.

According to our interlocutors, leaders play three basic roles: they should give inspiration for actions, they should present a vision (a new direction of the organisational development), as well as be selectors who decide about people joining the company. For instance, one of the respondents – a partner in his designing company – organizes trips to Venice from time to time with his co-workers (especially architects) to build a team, to relax as a 'working family', but also to inspire them with the creative surroundings and artistic places.

Following these quotations from our field, we believe that managers pursuing their career path change a lot. Depending on the organisation they represent, their development style differs. Some of them finish carriers on the level of a manager, but some move to the world of leaders. Here, we want to distinguish who a manager is and who a leader is, not by the definition but by the specific features they possess. Following Boyatzis (1982), we divided all traits mentioned by the respondents into three groups: knowledge, skills and attitude/abilities of managers. Table 1 sums up all the attributes named by our interlocutors.

Table 1. Competences of managers named by interlocutors

Knowledge/analytic: to reconcile ambitions of different people; solving problematic situations; analytic knowledge; responsiveness to dynamically changing environment; good organisation of work time; sensing who cannot operate, work efficiently; experience in the field, in the organisation; licences – certification, e.g. proven title and practice of the profession of a certified auditor; education – college, university, trainings
Skills: patience; listening; communication; self-reliance; making choices, making decisions; formulating thoughts; fast knowledge acquisition; maintaining good relationships with people; interpersonal skills to motivate people; bringing a stressful situation under control, indifference, apathy, ability to work under stress
Attitude/ability: commitment / drive (to like it and want to do this) / people who do not get bored / showing one's initiative; openness to change; open-mindedness; enthusiasm; freshness, youth, openness – desirable qualities; courage and assertiveness; distance to what you are doing; spontaneity; willingness to take responsibility for one's actions and results; flexibility

Source: own study based on the conducted interviews.

Managers also consider luck as an intrinsic feature of their actions. Success is not only defined by their individual contribution and hard work but it is also a matter of external factors. It is an interesting point of view, especially considering their engagement and long time spent at work. Thus, it seems that managers believe that luck is not just a simple coincidence but a strong power that helps them to act successfully.

The causes of our success are a good concept in close cooperation with the management of Gdynia [...], diligent work and support of Gdansk banking environment and the scientific community. With a little luck. [JJ]

> *In plenty of cases to win you need to opt for something that no one else did. You need luck in business, be in the right place at the right time. Persistence is not enough.* [JZ]

Our interlocutors distinguished project managers from regular managers because of some elements we are going to mention here. On the one hand, a project manager should motivate team-members but on the other hand, he should be decisive if the situation requires it. He should know everything about the teamwork, like creating a good team, understanding and managing people, finding conflict resolution and finally completing the project. A project manager as the person with a specifically defined goal needs to have nice personality, be relationship-oriented but still remember the goal of his actions, value the qualitative approach and build trust and good atmosphere in his team, as well as with his clients.

> *For us it is a failure if a client withdraws from a project. He does not want to continue the cooperation, right. It is a failure but a relief, too. The failure in the sense that you start to have doubt about the job performance and whether you do well. On the other hand, there is a type where the customer with whom anything won't work and you see it after some time, after a few weeks, really, after months of cooperation.* [...] *The customer can resign at any time. Sometimes we even feel the need to cut the customer's umbilical cord. But we have to fulfil assigned tasks. But really, the major setback for us is when the client loses confidence in the architect and stops cooperation.* [PP]

What are the features distinguishing managers from leaders? As we have already mentioned there is a fine line between leaders and managers. We also classified characteristic features of leaders mentioned by interlocutors into three groups: social and technical skills, and other abilities. Owing to the skills such as comprehensive planning and operational planning, they demonstrate the ability to synthesise the areas of business including knowledge, trends, policies, and further analyse the available information or apply the data. They are able to articulate their beliefs, making valid and sound arguments, convince people to follow the vision, objectives or goals, forecast/anticipate trends or results.

Good leaders possess specific social skills and among them collaboration capabilities, the ability to understand and listen to people, supervise work, the ability to learn and acquire knowledge quickly, negotiating skills and determination. To reach goals and accomplish all tasks they also need an ability to establish relationships. However, we met some leaders with technical or analytical background and they admitted the lack of some social skills, in their opinion. Among the technical skills, we could learn that leaders show the capability of managing the direction of business development, managing finance, restructuring employment or running a specific manufacturing company. Also, entrepreneurial skills, identifying opportunities and exploiting the potential of a business entity were mentioned.

We also made an effort of putting together all the virtues of leaders listed by interlocutors and emerging from rankings, as well. They are combined in Table 2.

If we asked interlocutors about leaders' competences, usually we got quite similar stories as for managers. A few details differed but, in our opinion, very significant ones. Respondents admitted that leaders need respect from others even more than managers to reach their goals. In their opinion, it is extremely important for the organisational development from the strategic point of view (for the company, as well as for the leader).

Table 2. Competences of leaders listed by interlocutors

Knowledge/analytic: combination of technical skills and interpersonal (managerial) – two company owners; interdisciplinarity; identifying problems in the environment; generating solutions to problems
Skills: flexibility; conceptual skills allow to structure the path of development of the organisation; comprehensive planning and operational planning; the ability to synthesise the areas of business including knowledge, trends, policies, and further analyse available information; applying data; articulating their beliefs; making valid and sound arguments; convincing people to follow the vision, objectives, goals; forecast, anticipating trends, results; collaboration capabilities; ability to understand and listen to people; supervising work; negotiating skills; ability to establish relationships; managing the direction of business development, financial management, restructuring employment; entrepreneurial skills – identifying opportunities and exploiting the potential of a business entity; marketing skills; the ability to learn, acquire knowledge
Attitude/ability: respect; sensitivity (engineer-artist); wide view, contact with others, a different point of view; consistency, integrity (fair, ethic); sympathetic; flexible; energetic; thrill-seeking; ambitious; eager to cooperate; independent; courageous; prudent; responsible; honest; determined to obtain success; stubborn

Source: own study based on the conducted interviews.

Moreover, it is the way to create authority in their closer and further environment. The factor helpful in establishing respect is more behaviour than knowledge of the leader. The leader must be a role model for his subordinates and a wider business environment. It influences his position and efficacy. The whole process is very well described in the next quotation.

> At some point you build something like authority or expect others to act in obedience to your recommendations, no longer you have to show, for example, your CV and what you've done, or convince someone to do something. Each person sees your name positively […]. In the manager's career something like building authority is an indispensable element in making any progress at all in his career, no training in new techniques of management. There are people who join my team, usually younger, who have PRINCE, B2B, various training done, CV full of trainings, but have no experience, no practice in leading projects. They do not have such authority built. Authority should be in a symbiotic relationship with certificates […]. Okay, maybe you have authority, but you do not have the theoretical basis and also nobody will treat you seriously. […] Nobody assigns any serious task to you, because very often project leaders or managers are selected to the company not to perform the task effectively but to make a good PR around the task. And we do the same, we choose well-known consulting companies. [TN]

While asking about the manager's profession we also heard stories about entrepreneurs. Many of our managers appeared to be owners of their companies at the same time, with several entrepreneurial features. The picture of an entrepreneur drawn by our interlocutors shows that they are people somewhere in-between. Depending on the branch in which they operate or business they run, sometimes they use only managerial skills, sometimes they must be visionaries. That is the moment where all competencies get together again and form a capacious and diverse profession of managing people.

CONCLUSIONS

From our field material, some differences between managers and leaders emerge. First of all, managers usually follow the imposed goals, while leaders are expected to create their own directions of organisational development. Leaders usually have longer practice and are more experienced than managers. That is why, they are ready to mark out the directions of organisational development, taking into consideration not only knowledge but also all the mentioned skills. Leaders ought to build respect among people they work with. Although respect and authority might be an integral part of managers' job, they are not indispensable.

From our research one more conclusion arises: leaders need to deal with issues which are strategic for a company and much more important than it is in the case of managers who usually concentrate on finding solutions for everyday problems. To accomplish that goal managers need specific skills that do not have to be extremely creative, but high communication skills and abilities for successful teamwork. Working efficiently and ethically are their priorities for maintaining consistency in the profession. Answering the question which we rise in the title of the article, managers, leaders as well as entrepreneurs (which we cannot separate clearly) need similar competences and other individual virtues indispensable to manage people. But more than competences they need to concentrate on long-lasting goals and strong values. It is much more important for them to care about the moral attitude and safety of the organisation they work for than social skills or other useful competences. They need to base on traditional values, create safe and peaceful (as they state) environment to achieve their goals. It does not mean that competences are not important, but it emphasizes that managers, leaders and entrepreneurs need to foresee some steps ahead so they could see organisational phenomena from the wider perspective. Entrepreneurial competences seem to be more important for leaders who need to deal with risk and challenges, be strongly motivated and always look two steps ahead (Brzozowska, Glinka, & Postuła, 2014). In the case of managers – it depends on the branch they operate in and the level of their actions. The smaller the group they manage is, the fewer entrepreneurial competencies they seem to need. However, this cannot be a common rule, as we found many exceptions and the qualitative character of the study does not allow us to draw such a conclusion. As Czarniawska (2010) states, specific times require a different type of managing people. Hard times usually generate the need for managers who teach how to exist, the times of crisis need leaders who show the path for a better life, and times for creation require entrepreneurs who are strong and can act fast. Whether we need managers, leaders or entrepreneurs the time will show soon. This could be a perfect idea for forgotten replication research (Butler, Delaney, & Spoelstra, 2017).

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In Quest of SME-Conducive Policy Formulation*

J. Hanns Pichler

A B S T R A C T
Objective: The article focuses on the role of SMEs in the national, regional and global environment. The main objective of the article is to present the economic and social importance of SMEs in the context of policy formulation for their support and development.
Research Design & Methods: The article reviews the theoretical and empirical literature on SMEs and their role in business environment. Then the paper develops a set of questions and propositions to guide future research and policy.
Findings: The article describes a significant role of SMEs for job creation and economic dynamics. Over the economic considerations, relevance of SMEs is to be viewed also from a more broadly based socio – economic perspective; that is, SMEs being seen as a driving force of structural change on the one hand, and as stabilising factor for safeguarding a given economic setting with its institutional framework in the dynamics of change on the other.
Implications & Recommendations: The complexity and dynamics of market processes determine the diversification of SME policy. Identifying contemporary challenges faced by SMEs are 'building stones' for specific policy formulation in the future.
Contribution & Value Added: The study highlights the need to deepen the understanding of the current role of SMEs for the labour market and welfare. What is more, the SMEs policy should be articulated more offensively as a key component of the economic policy in general.
Article type: policy paper
Keywords: SMEs; policy formulation; environment
JEL codes: D02, D04, L21
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'Why are SMEs so important … Because high employment growth in SMEs in the last decades has prevented unemployment rising … in the European Economic Area'.

The European Observatory for SMEs

INTRODUCTION

The topic itself raises an ever challenging question: that is, about the role and significance, if not to say the 'survival' of small and medium-sized enterprises (SMEs) and related structures within an environment of forces which – particularly in the sphere of industry – at first sight tend to favour the 'big' rather than the 'small'. This at the same time points at the underlying aspects and challenges of broader socio-economic and structural dimensions with a concomitant need for the appropriate formulation of more differentiated and specifically designed business policies in general.

   Such challenges and related problems today are to be seen from an inseparably intertwined and multipronged point of view:

− From a more and more international view, not the least as a strategic ingredient of development to be the recognised perception of the role and exposure of SMEs in their sector-related structural significance nationally, regionally and nowadays, in fact, **globally.**
− Then, from a closer to the skin view of developments related to on-going restructuring in our **European** and – when speaking of SMEs – in many ways regionally unique business environment.
− Finally, under overriding **socio-economic** and systems-related aspects of a more comprehensive SME-specific policy formulation.

Global Environment

Globally, the evidence of new and growing recognition of the role of SMEs is witnessed by quite profound reorientation in development policy over the last decades with a distinct change in strategies toward fostering sector-related diversification for more balanced long-term growth and economic welfare under generally sustainable conditions.

   When speaking of strategies, there is today an ever-growing awareness worldwide of the role of SMEs both as a factor of sustaining economic stability and simply as an indispensable catalyst for fostering economic dynamics and welfare. The experience and recognition thereof has triggered more broadly based rethinking and change in the outlook, quite in contrast still to post-war decades, when sustained economic buoyancy, business dynamics and growth to a large extent tended to blur the need for any more subtle structural considerations. Yet, the underlying economic realities and the very characteristics of any SME structured business environment, finally were not to be indefinitely neglected with impunity.

   Altogether – and not the least from the European angle – this has largely disproved more orthodox and seemingly ill-conceived notions of any inherent superiority of the 'big' versus the 'small', thus recognising the specific role of SMEs in the context of a more subtle and diversified approach towards 'structural development'.

Specifics of the European Environment

Narrowing our focus geographically and taking a closer look, e.g., at the specificity of the **European business environment,** a unique, richly structured and indeed highly diversified SME 'landscape' emerges. A landscape with manifold facets as vividly illustrated again and again by the 'European Observatory for SMEs'. Thus, it is shown that SMEs (defined as up to 250 employees) within the 'European Space' in a broader sense number somewhere close to 20 million units, as against only about 40.000, or just 0.2% of larger firms (with more than 250 employees); this makes up an average of some 50 (non-primary) business establishments per 1000 inhabitants! Furthermore, these millions of smaller – in a considerable part craft-dominated micro-enterprises – over the past years have continuously tended to outperform larger enterprises in terms of job creation. This at the same time demonstrates that without such relatively high employment growth and intensity on the part of SMEs, the European unemployment syndrome would have been even more pronounced!

While illustrating thereby the economic and social importance of SMEs in the European context, this further implies – as stated in the 'Observatory' mentioned – that over the years an estimated 1.5 million Europeans annually decide to start a business of their own; and this way, over half a decade or so, the number of (mostly small to very small) enterprises has increased by about 9%, while the EU population has grown by only about 2%.

In the country-specific terms, it is quite typical too when, e.g., in Austria – and similarly in Germany, in Switzerland and elsewhere – nearly 99% of all non-agricultural business establishments have less than one hundred employees; and of those again close to 90% have less than 10, and less than 2% 100 or above. Moreover, in terms of sustaining employment, the SME sector on the whole – due to its flexibility and adaptability, in the period of profound industrial restructuring, was by and large able to absorb, and thereby compensate for, on-going layoffs in the larger public sector-dominated industries to the tune of some 80.000 employees (or nearly 3% of Austria's total workforce).

While recognising such proven strength not only structurally but also as providing a certain measure of resilience against business cycle volatilities, one might take note of the fact that it is exactly in the sphere of SMEs as well where – due to their more immediate socio-economic exposure – conflicts of interest (not free at times from certain partisanship) do arise and are being fought out; conflicts implying both positive and negative repercussions as to the sector-related policy formulation with concomitant institutional implications. Frequently, this indeed resembles the arena where in essentially market-based systems 'the very action' is; where policy challenges and demands are being articulated in ever so numerous nuances and facets.

The sheer existence and sustained survival of SME structures with their complexities as mirroring the reality of economic life itself, visibly contradicts erstwhile widely spread 'prophecies' of the ultimate demise of small businesses as a predicament under both 'classical' and, of course, Marxist doctrines. Historical evidence and today's systemic transformation processes in formerly Soviet-dominated Central and Eastern Europe clearly point to the opposite; the very essence of the restructuring going on there more than ever calls for speedy creation or revival of sound and diversified SME structures as simply an indispensable ingredient for any sustained recovery as one of the strategically most challenging issues.

All too easy at times, as it seems, the inherent wealth and diversity of typically SME structured business scenarios are merely taken for granted; this perhaps too, because we are somehow used to the fact that SMEs have always been or simply ought to be there anyway. Yet, for any more conscious policy considerations this, in fact, is not so self-evident; it rather does call for continued awareness to assure that underlying resilience and adjustment capabilities are constantly safeguarded.

Such adjustment capabilities to changing business conditions and, at times, volatile cyclical movements, quite typically are characterised also by structural permeability both upwards and downwards: that is to say, by way of adjusting – and in today's scenario the more relevant – to forces of regional (or even global) integration with implicit restructuring of business sizes. Such restructuring, by its very nature, is not to be interpreted one-sidedly as simply a tendency towards 'concentration' only; rather, and more objectively so, it is equally to be seen as a process of opening up opportunities also 'downstream' in terms of structural deepening as markets and, in particular, the size of markets change.

The insights of modern industrial economics give credence to such complexities in the course of structural adjustment with, in part, new evidence as to criteria of 'optimal' business sizes being induced, e.g., by technological developments. Thereby, placing emphasis not so much on economies of 'scale'; but rather more on elements such as SME-specific diversification or differentiation rendering classical returns to 'scale' no longer so valid an argument as against economies of 'scope'. More pointedly still, it implies conscious recognition of such complexities as, e.g., regional specifics and market differentiation, locational spread, including relative density of businesses relating to given demand and supply patterns, with implications again for product/market orientation and diversification of size structures as relevant for both forward and backward linkages of respective business activities.

Any SME policy addressing such complexities finally has to do with what one might subsume under contributing to 'quality of life' and to conditions of welfare in a broader sense. Endowment with diversified business structures and, thereby, with enhanced economic opportunities, productive capacities and increased potential for catering to differentiated, individualised patterns of demand finally needs to be judged with a view to such qualitative aspects (a study to this effect conducted in Austria, for example, depicts regional differences in relative SME density between 40 and 80 per 1000 inhabitants as clearly correlating with respectively higher or lower levels of economic welfare, incomes and purchasing power.)

Socio-Economic Dimension of the Environment

Over and above mere economic considerations, relevance of SMEs, finally, is to be viewed also from a more broadly based **socio-economic** point of view; that is, SMEs being seen as a driving force of structural change on the one hand, and as a stabilising factor for safeguarding a given economic setting with its institutional framework in the dynamics of change on the other hand.

For any freedom- and as such market-oriented socio-economic order as a form of life, this unequivocally implies commitment to entrepreneurial initiative, to guarantee both free and autonomous pursuit of business opportunities; furthermore, it implies commitment to market criteria of performance with quite a legitimate claim for an adequate return under due consideration of social (including environmental) responsibility in the conduct of business as such. It also means that any such policy inescapably becomes part and

parcel of shaping socio-economic conditions as a conducive framework wherein SMEs, with their diversified structures and patterns of performance, can thrive as indispensable for guaranteeing and sustaining welfare conditions for society as a whole – constituting undoubtedly a policy challenge at any time anywhere.

Such a policy ought not to shy away from the very 'nitty gritty', either: such as, e.g., avoiding to burden SMEs in a discriminatory manner with unremunerated administrative tasks by public authorities. A study to that effect in Germany demonstrates that the relative impact in terms of cost and manpower to be allocated proves up to 22 times (!) and, thus, quite disproportionately higher for SMEs as compared to larger enterprises. In a somewhat more sarcastic vain, but pointing essentially in the same direction, the US Small Business Administration some time back undertook to illustrate that roughly 10 million businesses under its constituency got inundated yearly by well over 300 million forms with up to one billion pages containing more than 7 billion questions; altogether entailing unremunerated costs averaging some 3000 USD.- or more per firm. Gracefully perhaps, a similar EU related assessment has not, as yet, been carried out!

If on the other hand – as it is often quite 'liberally' claimed – it is to be recognised that SMEs indeed represent the mainstay or very 'trade mark' of any market oriented economy; and if it is true further, as variously being claimed, that – due simply to the existence of more diversified SME structures – economies over and over again were able to prove their adaptive capabilities for both overcoming even severe policy mistakes and at the same time taking on new challenges, then it would be only consequential for any related policy to attain a certain measure of 'natural' legitimacy of its own.

CONCLUSIONS

Upon closer scrutiny of such pronouncements and arguments though, one might be left wondering whether this kind of demands and recommendations do not remain pretty much on the surface and, thus, tend to fall way short of recognising more profound issues involved; whether not – if argued from a systems-related point of view – indeed more deeply probing questions as to the really crucial 'building stones' of any SME-specific policy were to be addressed, as e.g.:

- **Questioning**, with a view not the least to prevailing structures, whether 'classically' defined strategies of blatant 'marketeering' indeed make for adequate and sensitive enough a policy taking proper cognisance of underlying diversities and complexities?
- **Questioning** further whether sheer prevalence of SME diversification with related institutional structures not might rather call for an equally differentiated policy; a policy which – within an essentially market based framework – just as well allows for appropriate multiplicity of cooperative (corporatist) or in various ways subsidiary forms of business organisation and relationships as a kind of 'natural' ingredient, if not enrichment of any economic system pointing beyond simple supply and demand mechanisms at the very micro level?
- **Considering** lastly, and without wanting to seem 'heretical', whether not – and possibly quite legitimately so – to foster and thereby acknowledge intermediate forms of business associations at the meso level as a simply inescapable feature of institutionalisation for any sound SME policy recognising, in principle:

- o for one, that competition as a coordinating 'mechanism' via markets constitutes only one – but not the only one – criterion or instrument governing business conduct and, depending on given sectoral or structural conditions, not necessarily is to take centre stage; or putting it more bluntly: that the acceptance of an essentially competitive, market-oriented economic order for SMEs equally requires an appropriate framework of institutions going along with,
- o furthermore, that the cognisance of such specifics with implicit forms of institutionalisation may prove more conducive to SME-related business conduct than any undifferentiated plea for cut-throat competition at micro level, by emphasising and bringing to bear economies of 'scope' rather than of 'scale'; or in short: considering SMEs not merely as 'beautiful', but also as being 'efficient' in a more comprehensive sector-specific understanding,
- o and finally, that necessary autonomy of SMEs within a spectre of larger entities is to be constantly safeguarded, not the least by way of sector-related forms of institutionalization in duly recognising role and relevance of the SME sector as a whole from an overriding socio-economic perspective.

Any self-conscious, as such not to be confused with self-righteous, SME policy conceived under such auspices clearly needs – in view of legitimate claims and issues involved – to be articulated more aggressively still, as quite an essential element within the realm of any really effective policy formulation wherever.

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Work Intensity in Slovakia in Relationship with Socio-Economic Characteristics of Households

Erik Šoltés, Mária Vojtková

A B S T R A C T
Objective: The aim of this article is to evaluate the relationship between work intensity and educational attainment of the household head and household type in Slovakia.
Research Design & Methods: Statistical analyses were carried out in analytics software SAS Base and SAS Enterprise Guide by means of contingency, correspondence analysis and multinomial logistic regression. Empirical analyses are based on data from the survey EU-SILC 2015.
Findings: The article provides estimates of the probabilities of individual degrees of households' work intensity depending on the household type and educational attainment level of the household head, while simultaneously in both cases households are broken down by economic activity of the household head. The presented analysis revealed categories of households which are the most and the least threatened by labour market exclusion from the point of view of the considered factors.
Implications & Recommendations: While the social inclusion monitor in Europe says that in 2012 (quasi-) joblessness was typical for households with three or more children, our analysis for 2014 did not confirm this. The exclusion from the labour market in 2014 was the most typical in Slovakia for households without dependent children, where there is no more than one person in productive age.
Contribution & Value Added: The article is not limited only to the very low work intensity which is used to assess the progress in the reduction of (quasi-) joblessness, but focuses on all the levels of work intensity (very low, low, medium, high and very high).
Article type: research paper
Keywords: poverty and social exclusion; work intensity; (quasi-) joblessness; EU SILC – European Union Statistics on Income and Living Conditions; correspondence analysis; multinomial logistic regression
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INTRODUCTION

The key objective of the Europe 2020 strategy is to combat income poverty and social exclusion, with people at risk of poverty or social exclusion, namely those at risk of income poverty and/or being materially deprived and/or living in households with very low work intensity. Therefore, the methodology for measuring poverty and social exclusion used in the Europe 2020 strategy is based on a three-dimensional concept with the following dimensions: income poverty, material deprivation and exclusion from the labour market. Exclusion from the labour market is monitored by very low work intensity. Households with very low work intensity are also referred to as (quasi-) jobless households.

Quasi-jobless households were a centre of interest, especially during the economic crisis, when the living conditions of individuals living in such households, were more severe and affecting most of the population. At present, when economists do not anticipate a new global crisis or recession, politicians working with experts should seek ways to effectively eliminate unemployment and exclusion from the labour market.

Based on the methodology used by Eurostat to monitor exclusion from the labour market, household work intensity is defined as the proportion of the total number of months during which in the course of the income reference year all members of the productive-age household worked and the total number of months that the same household members could theoretically work, under state legislation, during the same period. A person of productive age means a person aged 18-59 with the exclusion of students in the 18-24 age group. Households consisting only of children, students under 25 and/or persons aged 60 and above are totally excluded from the calculation of the indicator (Eurostat).

Contrary to most scientific papers, this article focuses not only on households with very low work intensity (quasi-jobless households), but also to households whose work intensity is at a different level (low, medium, high or very high; Table 1).

The first aim of this article is to evaluate the relationship between work intensity and educational attainment of the household head and household type. However, the main objective is to estimate the probability of the individual degrees of work intensity of households depending on the type of household and education of the person at the head of the household, and in both cases apart from the breakdown by economic activity of the person at the head of the household. Based on the EU-SILC 2015, the article analyses the impact of the household type and the education of the person at the head of the household on the level of work intensity in determining the economic activity of the person at the head of the household and it focuses on the estimation of individual degrees of work intensity in the population of Slovak households in 2014 (reference period for EU-SILC 2015 surveys), for individual households in classification by breaking down by the factors mentioned above. The survey itself is conducted on a sample of 5.637 households, using the cross-sectional weights in the analysis. Statistical analysis is realised through correspondence analysis, contingency analysis and multinomial logistic regression models.

LITERATURE REVIEW

Employment is a source of regular income for both persons in productive-age as well as households and it is also prevention of the risk of poverty. On the other hand, 100%

employment does not guarantee that the household will be out of poverty risk. Finally, in-work poverty is an up-to-date subject in the fight against poverty, and many of the scientific papers are considered with this issue (e.g., Halleröd, Ekbrand, & Bengtsson, 2015; Horemans, Marx, & Nolan, 2016; Hick & Lanau, 2017). However, poverty and social exclusion are mainly linked to unemployment. As stated (Atkinson, Guio, & Marlier, 2017), unemployment affects not only the unemployed person, but the whole household, which has to face greater economic uncertainty. The most important is long-term unemployment, as the long-term loss of contact with the world of work can lead to social exclusion, health deterioration and negatively affect the well-being of children.

According to Corluy and Vandenbroucke (2017), in 2012, in terms of household type, the highest incidence of very low work intensity was in Slovakian households with at least three children. Households with very low work intensity use their work potential at less than 20% (see definition in the next section above Table 1) and in 2012 households with three or more children in Slovakia accounted for approximately 41% of such (quasi-) jobless households. Within EU countries, the representation of such multi-child households among (quasi-) jobless households was only in Bulgaria (49.7%) and in Greece (47.5%). On the contrary, in Scandinavia and Germany, households with 3 or more children were less than 10% (only 1.3% in Denmark) among households with very low work intensity. In these countries, the exclusion from the labour market was mainly referred to single-parent households.

In 2012 in the EU-27, 87% of households which were recorded with very low work intensity had total unemployment (Corluy & Vandenbroucke, 2017). In Slovakia, this share was even higher, at 90%, where Slovakia joined together with Malta, the Czech Republic, the Netherlands, Slovenia and Romania among the countries with the largest share of total unemployment among (quasi-) jobless households. However, in 2012, but also in the following period (by 2015, when the most up-to-date data is available), Slovakia was counted among the countries with the lowest level of very low work intensity. In the whole period (2011-2015), Slovakia, as well as Sweden, Luxembourg, the Czech Republic, Poland and Romania (and from non-EU countries also Switzerland, Iceland and Norway) did not record the share of people living in households with very low work intensity above 8% (Eurostat).

As we have already indicated, the work intensity of household affects the risk of poverty and the threat of material deprivation. The impact of work intensity on income poverty in Slovakia and the Czech Republic in the period 2006-2013 was demonstrated by Mysíková, Ramon and Želinský (2015). Kis and Gábos (2016) through logistic regression showed that labour intensity has a significant impact on consistent poverty in the EU. Ayllón and Gábos (2015) confirmed the relationship between severe material deprivation and low work intensity in Central and Eastern Europe. The strong positive relationship between low work intensity and poverty was quantified by the authors in all analysed countries (not only in Central and Eastern Europe). Guagnano, Santarelli and Santini (2013) revealed that work intensity is one of the major socio-economic factors influencing the perception of subjective poverty in Europe.

The close relationship between the different dimensions of the AROPE (at-risk-of-poverty or social exclusion) also indicates that in the EU-27 in 2012 there were households with very low work intensity, of which up to 65% were at the risk of monetary poverty or were severely materially deprived. In Slovakia we register about 10 pp greater value of that share (Corluy & Vandenbroucke, 2017).

From the perspective of the methods used in this article, there is logistic regression, which is a popular statistical tool in poverty and social exclusion analysis. Řezanková and Želinský (2014) used logistic analysis for one of the partial indicators of poverty, namely material deprivation in relation to selected household characteristics. We can come across the estimation of the chance to become an unemployed person, which is relatively closely related to work intensity, in the work by Lučkaničová, Ondrušeková and Rešovsky (2012). Through logistic regression, Hick and Lanau (2017) quantified the impact of selected factors on in-work poverty and examined the impact of risk factors on very low work intensity in Ireland.

Most scientific articles analysing poverty and social exclusion use logistic regression with a binary dependent variable. The ambition of this article is the use of a multinomial dependent variable in modelling the probability of the occurrence of a certain degree of work intensity in relation to the selected socio-economic characteristics of the household.

MATERIAL AND METHODS

The work intensity of households is divided into five categories (Table 1). For the purpose of analysing the work intensity of Slovak households, we created a categorical variable WI (Work Intensity) with variations from 0 to 4. The target variable WI – degree of work intensity expresses the use of households' work potential from their theoretical work potential. So, households which use their work potential at less than 20% are characterised as household with very low work intensity (VLWI), then households which use their work potential to at least 20% but at less than 45% are household with low work intensity, etc.

Table 1. Levels of households work intensity

Level of work intensity	Value ranges of work intensity index	Category designation (degree of severity)	Abbreviation
Very low	$\langle 0; 0.2)$	4	VLWI
Low	$\langle 0.2; 0.45)$	3	LWI
Medium	$\langle 0.45; 0.55\rangle$	2	MWI
High	$(0.55; 0.85)$	1	HWI
Very high	$(0.85; 1\rangle$	0	VHWI

Source: own study on the basis of Eurostat.

On the basis of a number of scientific papers showing the impact of selected predictors on one of the dimensions of poverty and social exclusion (Gerbery, 2013; Rastrigina, Leventi, & Sutherland, 2015; Watson, Maitre, & Whelan, 2012; Whelan & Maître, 2014) and on the basis of our own experience (e.g., Šoltés & Šoltésová, 2016), we assume that the degree of work intensity of households is affected primarily by the status of economic activity, the highest level of education and the type of household. For the sake of clarity in analyses, we used custom labels of variables and their variations (categories). As counts of households were low in some categories of education, we combined them with similar categories of a relevant factor. The description of the input variables and the above changes in the titles and in the definition of the categories of these variables are captured in Table 2.

Table 2. Description of input explanatory variables

Variable in EU SILC	Variable name	Category of variables	Value	Label
RB210	Economic activity status *EAS*	at work	1	–
		unemployed	2	
		retired	3	
		inactive_person	4	
HT	Household type *HT*	1adult	5	Single person
		2adult_0ch	6	Two adults younger than 65 years
		2a_1r	7	Two adults, at least one aged 65 years or above
		other_0ch	8	Households without dependent children
		1a_at_least_1c	9	Single person with dependent children
		2a_1ch	10	Two adults with one dependent child
		2a_2ch	11	Two adults with two dependent children
		2a_at_least_3c	12	Two adults with 3 or more dependent chil-
		other_with_ch	13	Households with dependent children
PE040	*EDUCATION* by ISCED	less_than_ secondary	0	Less than primary
			1	Primary education
			2	Lower secondary education
		upper_second-	3	Upper secondary education
		post_secondary	4	Post-secondary non-tertiary education
		tertiary_1	5	Short cycle tertiary education
			6	Bachelor´s or equivalent level of education
		tertiary_2_3	7	Master´s or equivalent level of education
			8	Doctoral or equivalent level of education

Source: own study on the basis of Eurostat.

Correspondence Analysis

Correspondence analysis is a method which is based on the analysis of the structure of mutual dependencies of two or more variables. Because it focuses on examining the dependence of predominantly nominal or ordinal variables, in the case of a continuous variable it is necessary to categorise its values. It solves this problem in a similar way as factor analysis or the principal component method, while hidden or latent variables can be represented as axes of the reduced coordinate system (correspondence maps), in which the individual categories of variables will eventually be displayed. This is a method that in its essence belongs to exploration methods, and can be a good instruction for deciding which categories of variable should be merged and which can be kept separate. It is mainly used in marketing, but its interesting applications are also found in other areas.

In the case of a simple correspondence analysis (Greenacre, 2016), we deal with a two-dimensional contingency table. From the values of this table (n_{ij}) we can deduce the correspondence matrix **P** with the elements p_{ij}.

$$p_{ij} = \frac{n_{ij}}{n} \tag{1}$$

where:

$i = 1, 2, …, r;$

$j = 1, 2, …, s.$

Row marginal relative frequencies p_{i+} are called row loads (r_i), with their line percentages being referred to as row profiles. Similarly, column marginal relative frequencies p_{+j} are called column loads (c_j), with their column percentages being referred to as column profiles. The whole correspondence matrix can be schematically expressed as follows:

$$
\begin{bmatrix} \mathbf{P} & \mathbf{r} \\ \mathbf{c}^{\mathrm{T}} & 1 \end{bmatrix} = \begin{bmatrix} p_{11} & p_{12} & \cdots & p_{1s} & r_1 \\ p_{21} & p_{22} & \cdots & p_{2s} & r_2 \\ \vdots & \vdots & \vdots & \vdots & \vdots \\ p_{r1} & p_{r2} & \cdots & p_{rs} & r_r \\ c_1 & c_2 & \cdots & c_s & 1 \end{bmatrix}
\tag{2}
$$

where:

$\qquad$ **c** - is the *s*-elements vector of the column loads;

$\qquad$ **r** - is the *r*-elements vector of the row loads.

Each row (column) of the correspondence matrix can be represented as a point in a *s*-dimensional (*r*-dimensional) space with coordinates corresponding to the values of the respective profiles. We can then calculate the distances between individual points, while the most commonly used is the chi-squared distance between the *i*-th and the *i'*-th line produced by the relation:

$$
\chi^2 = \sqrt{\sum_{j=1}^{s} \frac{\left(r_{ij} - r_{i'j}\right)^2}{c_j}}
\tag{3}
$$

where:

$\qquad$ r_{ij} - are the elements of the row profiles matrix **R**;

$\qquad$ c_j - weights correspond to the elements of the column load vector $\mathbf{c}^{\mathrm{T}}$.

Similarly, we proceed in computing the differences (dissimilarities) between column categories.

The goal of the method is to reduce the multidimensional space of vectors of row and column profiles, while maximally preserving the information contained in the original data. Usually, a two-dimensional space is used, i.e. plane. The point which lies directly in the plane and is closest to the corresponding point in space is called projection. The solution comes from a matrix **Z** of standardised residuals with elements:

$$
z_{ij} = \frac{p_{ij} - p_{i+}p_{+j}}{\sqrt{p_{i+}p_{+j}}}
\tag{4}
$$

and its singular decomposition according to relationship

$$
\mathbf{Z} = \mathbf{U} \cdot \mathbf{\Gamma} \cdot \mathbf{V}^{\mathrm{T}}
\tag{5}
$$

where $\mathbf{\Gamma}$ is the diagonal matrix and where the relationship $\mathbf{U}^{\mathrm{T}} \cdot \mathbf{U} = \mathbf{V}^{\mathrm{T}} \cdot \mathbf{V} = \mathbf{I}$ applies.

Prior to the estimation of the co-ordinates of each category, the choice of the normalisation method should be made, i.e. the way to show points in the correspondence map. The so-called symmetric normalisation is most commonly used, in which we are interested in the mutual comparison of both row and column categories. In interpreting the results, the points are considered closer when there is a higher similarity between the corresponding categories.

Multinomial Logit Analysis

The logistic regresson model is a special case of the general linear model (Ramon *et al.* 2010) and serves to model the categorical dependent variable depending on the

explanatory variables of the continuous or categorical type. In the case of binary logistic regression, the logarithmic transformation of the odds of probability p for the desired event to occur ($y_i = 1$; the event that is being examined) to the probability $1 - p$ of occurrence of the undesired event ($y_i = 0$), is used. The natural logarithm of the odds is called logit and, unlike probability $_p$, acquires any real values and can be modelled by a linear regression model (Hair, Black, Babin, & Anderson, 2010).

$$\text{logit}(p_i) = ln\frac{p_i}{1 - p_i} = \beta_0 + \beta_1 x_{i1} + \beta_2 x_{i2} + \cdots + \beta_k x_{ik} \tag{6}$$

where:

p_i - is the probability;

so that $y_i = 1$ ($i = 1, 2, …, n$), then $\beta_0, \beta_1, …, \beta_k$ are the parameters of the logit model and $x_{i1}, x_{i2}, …, x_{ik}$ are the values of the explanatory variables $X_1, X_2, …, X_k$ which are observed for the *i*-th statistical unit. To obtain maximum likelihood estimators of parameters of the logistic regression model the Newton-Raphson algorithm is generally used (see Allison, 2012).

After estimating the logistic model, it is important to verify its statistical significance and also verify whether the influence of the individual explanatory variables on probability p is significant. The significance of a logistic regression model is revealed by a zero hypothesis test $\boldsymbol{\beta}^{\text{T}} = (\beta_1 \quad \beta_2 \quad … \quad \beta_k) = \boldsymbol{0}^{\text{T}}$ against an alternative hypothesis – at least one regression coefficient should be not zero, while three different chi-square statistics are mostly used (Likelihood ratio, Score statistics, Wald statistics). Allison (2012) discusses the differences between these statistical methods and at the same time notes that in large samples there is no reason to prefer any of these statistics and they will generally be quite close in value.

In order to validate the significance of the explanatory variable influence, a Wald test is used. It tests the zero hypothesis showing that the respective explanatory variable does not affect the probability of the occurrence of the explored event. To verify the hypothesis, Wald statistic:

$$Wald = \widehat{\boldsymbol{\beta}}^{\text{T}} \boldsymbol{S_b}^{-1} \widehat{\boldsymbol{\beta}} \tag{7}$$

is used, where $\widehat{\boldsymbol{\beta}}$ is the vector of regression coefficients estimates which stand at dummy variables for the respective factor (categorical explanatory variable) and $\boldsymbol{S_b}$ is the variance-covariance matrix of $\widehat{\boldsymbol{\beta}}$. Wald statistic has asymptotically χ^2 distribution with degrees of freedom equal to the number of parameters estimated for a given effect. A special case of the above test is the Wald test, which verifies the statistical significance of one regression coefficient.

The quality of the logistic model can be evaluated by different measures. Among criteria which measure a relative quality of statistical models there are AIC – Akaike Information Criterion and SC – Schwarz-Criterion, which are based on the logarithmic transformation of the likelihood function, i.e. $-2lnL$.

Binary logistic regression is used if the explanatory variable is binomial. If the dependent variable has more than two categories (generally these are *s* categories), we can use a multinomial logit model which is created by ($s - 1$) logit functions:

$$\ln\left[\frac{P(y_i=1|\mathbf{x})}{P(y_i=0|\mathbf{x})}\right] = \beta_{10} + \beta_{11}x_{i1} + \beta_{12}x_{i2} + \cdots + \beta_{1k}x_{ik}$$

$$\ln\left[\frac{P(y_i=2|\mathbf{x})}{P(y_i=0|\mathbf{x})}\right] = \beta_{20} + \beta_{21}x_{i1} + \beta_{22}x_{i2} + \cdots + \beta_{2k}x_{ik} \tag{8}$$

$$\ln\left[\frac{P(y_i=(s-1)|\mathbf{x})}{P(y_i=0|\mathbf{x})}\right] = \beta_{(s-1)0} + \beta_{(s-1)1}x_{i1} + \beta_{(s-1)2}x_{i2} + \cdots + \beta_{(s-1)k}x_{ik}$$

The probability that a dependent variable will take the values 0, 1, 2, ..., $(s-1)$ for the variable explanatory vector $\mathbf{x}_i$ is estimated by equations

$$\hat{P}(y_i = 1) = \frac{e^{\hat{\boldsymbol{\beta}}_1^{\mathrm{T}}\mathbf{x}_i}}{1+\sum_{l=1}^{s-1} e^{\hat{\boldsymbol{\beta}}_l^{\mathrm{T}}\mathbf{x}_i}}, \dots,$$

$$\hat{P}(y_i = s-1) = \frac{e^{\hat{\boldsymbol{\beta}}_{s-1}^{\mathrm{T}}\mathbf{x}_i}}{1+\sum_{l=1}^{s-1} e^{\hat{\boldsymbol{\beta}}_l^{\mathrm{T}}\mathbf{x}_i}}, \quad \hat{P}(y_i = 0) = \frac{1}{1+\sum_{l=1}^{s-1} e^{\hat{\boldsymbol{\beta}}_l^{\mathrm{T}}\mathbf{x}_i}} \tag{9}$$

where:

$$\hat{\boldsymbol{\beta}}_l^{\mathrm{T}} = \begin{pmatrix} \hat{\beta}_{l0} & \hat{\beta}_{l1} & \dots & \hat{\beta}_{lk} \end{pmatrix}, \text{ while } l = 1, 2, \dots, (s-1).$$

RESULTS AND DISCUSSION

Based on the EU-SILC 2015 survey, we estimated that Slovak households used their work potential on average at 77% in 2014, with almost 7% of households experiencing total exclusion from the labour market and 52% of households with 100% work intensity. In the households headed by an unemployed person, the situation was, of course, worse. Such households used their work potential on average only at 27% and total exclusion from the labour market is estimated in almost half of households with the unemployed person at the head of the household. In the case of households with an employed person at the head of the household, we estimate an average work intensity of up to 86%, with 61% of these households we have identified 100% use of work potential. Approximately 85% of Slovak households in 2014 had an employed person at the head of the household and 7% of Slovak households had an unemployed person at the head of the household. At the head of the other households there was an inactive person or an old-age pensioner, or a person in early retirement, respectively.

Table 3. Assessment of the contingency between the analysed factors and the degree of work intensity of Slovak households

Statistic	EAS			HT			Education		
	DF	Value	Prob	DF	Value	Prob	DF	Value	Prob
Chi-Square	12	1608.74	<0.0001	32	849.21	<0.0001	16	409.45	<0.0001
Likelihood Ratio Chi-Square	12	1325.38	<0.0001	32	861.98	<0.0001	16	265.47	<0.0001
Cramer's V		0.4097			0.2578			0.1790	

Source: own processing in SAS Enterprise Guide (EU-SILC 2015).

By analysing the contingency, by using the Chi-square of the tests listed in Table 3, we confirmed that the work intensity of Slovak households in 2014, was significantly affected by the status of economic activity and the education of the person at the head of the household,

as well as the type of household. In order to assess the intensity of this dependence, we used Cramer's V, which is based on the average square contingency and it is a suitable measure when comparing the degree of association for pivot tables of different dimensions. This association rate has shown that the work intensity of households is clearly most affected by the economic activity of the person at the head of the household. If we have quantified a moderate relationship between the work intensity of the household and the economic activity of the person at the head of the household, both the work intensity of the household and the household type the education of the person of the household head, respectively, we see weak (significant) dependence (AcaStat Software, 2015).

Although the contingency analysis showed that the work intensity of a household is closer to the type of a household than the education of the person at the head of the household, in accordance to Figure 1 and Figure 2 which are the results of the correspondence analysis, it was the opposite. Correspondent analysis, which is based on the analysis of the interdependence structure of two or more variables (Greenacre, 2016) did not identify any type of household, for which very low work intensity was typical (Figure 2).

Figure 1. Correspondence analysis of work intensity of Slovak households for factors, such as economic activity and education of the person at the head of the household
Source: own processing in SAS Enterprise Guide (EU-SILC 2015).

From Figure 1 we find, which we naturally assumed, that very low work intensity (VLWI) is characteristic for households headed by an unemployed person or a person with lower secondary education. On the other hand, very high work intensity (VHWI) is typical for households headed by an employed person and for households headed by a college student of the 2nd or 3rd grade but also with completed bachelor studies.

As we have already mentioned, for any type of household very low level of work intensity (VLWI) is not characteristic. This most serious work intensity when a household uses less than 20% of its work potential is most typical for households with a maximum of one person in productive age, specifically for households of two adults, of whom at least one is aged 65+ and for single-member households. In general, their work potential is best used by two adult households with two dependent children or one dependent child. These types of households are most associated with very high work intensity (VHWI) and together with

'other' households are at least associated with very low work intensity. For 'other' house-holds, (whether childless or with dependent children) high level of work intensity (HWI) is much more typical when compared to other types of households (Figure 2).

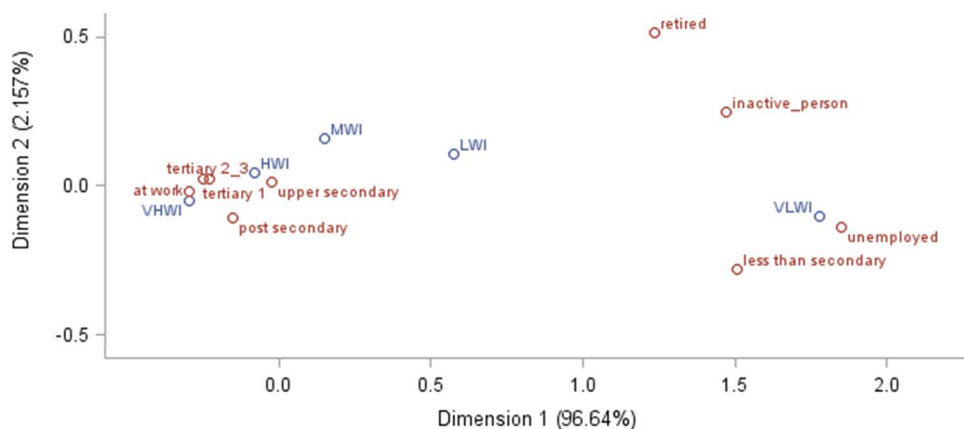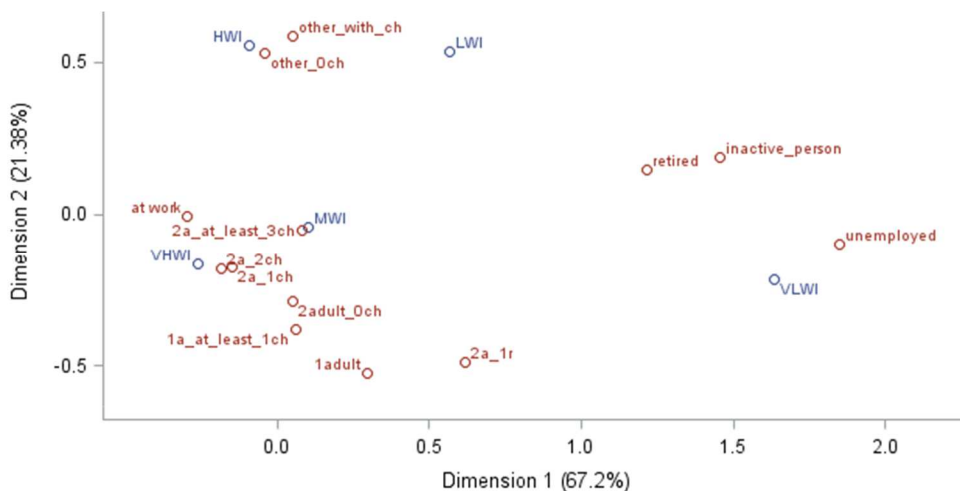**Figure 2. Correspondent analysis of work intensity of Slovak households for the factors
the economic activity of the person at the head of the household and the type of household**
Source: own processing in SAS Enterprise Guide (EU-SILC 2015).

Analysis of the Mutual Influence of Economic Activity and Type of Household on the Work Intensity of Slovak Households

In the previous part of the article we found that the use of household's work potential is significantly affected by the status of the economic activity of the person at the head of the household, the type of household and the education of the person at the head of the household. In this section, we will fix the impact of the economic activity of the person at the head of the household and we will estimate the share of households at the individual levels of work intensity for each type of household.

For this purpose, we will use a multinomial logistic model containing two explan-atory categorical variables, namely the status of the economic activity of the person at the head of the household and the type of household. The presented results are based on the estimates, made in SAS analytical software, in its application Enterprise Guide using the LOGISTIC procedure with LINK = GLOGIT (generalised logit), respec-tively. The Newton-Raphson algorithm (Allison, 2012) was used to obtain the most reliable estimates of model parameters.

The analysis of the multinomial logistic regression model (Table 4) confirmed that the economic activity of the person at the head of the household and the type of household in 2014 significantly influenced the degree of work intensity of Slovak households. The two explanatory variables explained about 50% of variability of the degree of work intensity.

Table 4. Verification of the statistical significance of the multinomial logistic regression model and the significance of the partial impact of the explanatory variables EAS and HT

Model Fit Statistics		
Criterion	Intercept Only	Intercept and Covariates
AIC	7894.835	5810.644
SC	7919.113	6101.972
-2 Log L	7886.835	5714.644

Testing Global Null Hypothesis: BETA=0			
Test	Chi-Sq	DF	Pr > ChiSq
Likelihood Ratio	2172.20	44	<0.0001
Score	2426.34	44	<0.0001
Wald	1013.25	44	<0.0001

Type 3 Analysis of Effects			
Effect	DF	Wald Chi-Square	Pr > ChiSq
EAS	12	493.4016	<0.0001
HT	32	541.5574	<0.0001

R-Square	0.4933
Max-rescaled R-Square	0.5390

Source: own processing in SAS Enterprise Guide (EU-SILC 2015).

Table 5. Parameter estimates of the multinomial logistic regression model with the explanatory variables EAS and HT

Work Intensity	Intercept	EAS			Household Type							
		unemployed	inactive	retired	1a_at_least_1ch	1adult	2a_1ch	2a_1r	2a_at_least_3ch	2adult_0ch	other_0ch	other_with_ch
1	-1.843	1.042	3.756	2.442	-1.138	-1.832	-0.009	-0.810	0.613	-0.535	1.470	1.672
2	-1.136	2.632	4.724	4.317	-2.430	-14.599	-0.018	-14.583	0.705	-0.507	-0.820	-0.747
3	-3.817	3.614	5.080	4.436	0.209	-1.147	-0.138	-13.703	0.490	-0.335	1.201	1.818
4	-5.350	6.970	8.116	6.729	0.490	0.838	-0.220	1.568	1.047	0.235	-0.499	0.573

Source: own processing in SAS Enterprise Guide (EU-SILC 2015).

On the basis of the estimated parameters (Table 5) of logit functions (8) and used equations (9) we estimated the probabilities of individual degrees of work intensity for individual categories of households (breakdown by economic activity status of the household head and the household type). These probabilities are displayed in Figure 3.

In all types of households we recorded the highest incidence of very high work intensity in those households which are headed by an employed person (Figure 3). We obviously expected this finding. What is interesting, however, is that in some types of households (type 12: two adults with at least three dependent children, type 8: other households without dependent children, type 13: other households with dependent children) headed by an employed person, very high work intensity was only at 50%. From the households headed by an employed person, the households of two adults with at least three dependent children had the highest incidence of average work intensity (30%, while other types of households

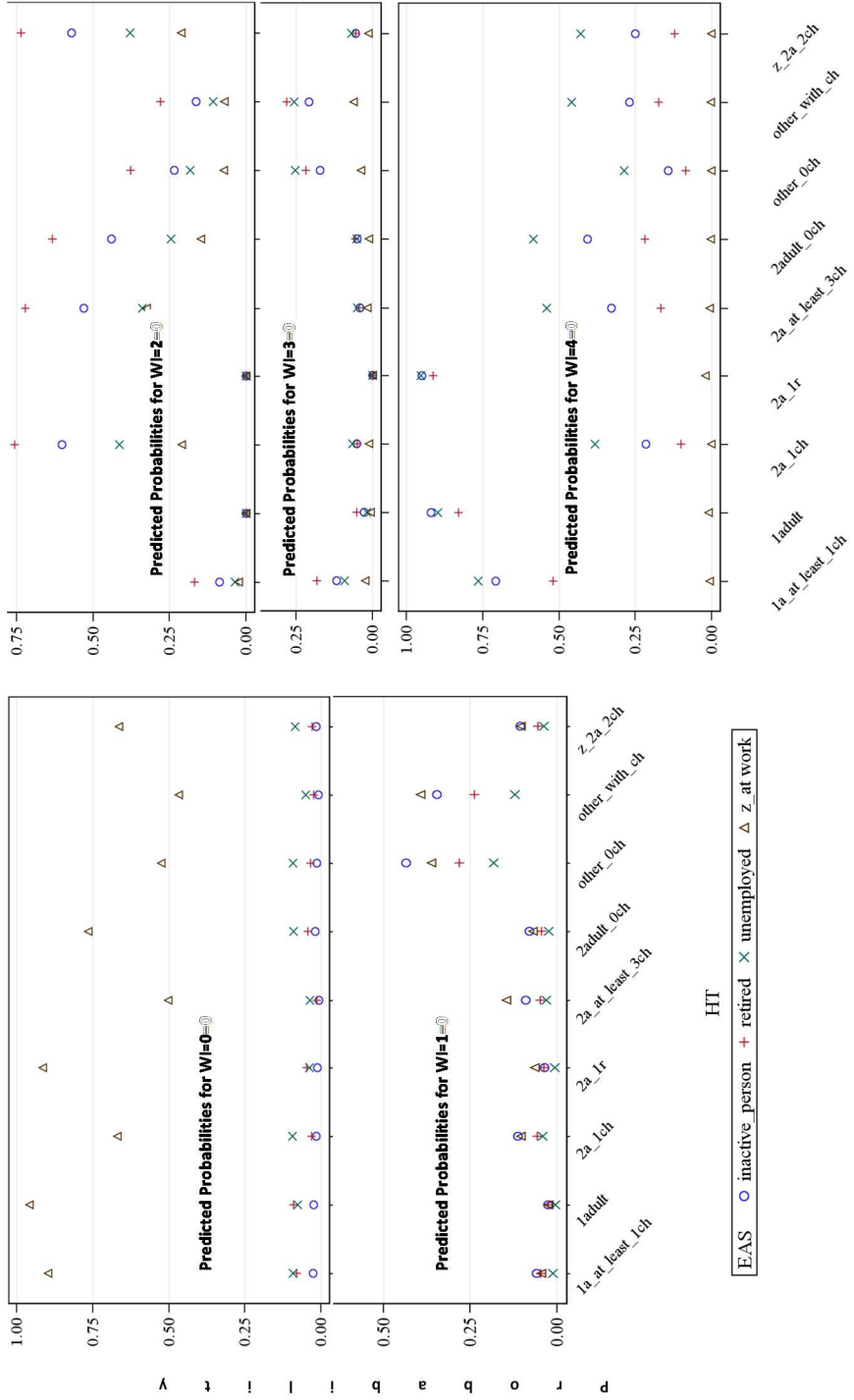**Figure 3. Estimated probabilities of individual degrees of work intensity of Slovak households depending on the status of economic activity of the person at the head of the household and on the household type**

Source: own processing in SAS Enterprise Guide (EU-SILC 2015).

where under 25%) and households of type 8: other non-dependent children type 13: other households with dependent children also had the highest incidence of high work intensity (37-38%, while other types of households under 20%). In all types of households, where the person at the head of the household was not employed, so the person at the head of the household was unemployed, inactive, or retired, the rate of very high work intensity was less than 12.5%. In these types of households the following dominated:

- high work intensity (first degree of severity) for Type 8 households: Other households without dependent children and Type 13: Other households with dependent children, if at the head of these households there was an inactive person,
- average work intensity for households of two adults with one dependent child, with two dependent children, with at least 3 dependent children, as well as in the households of two adults without dependent children, if a retired or inactive person was at the head of these households,
- very low work intensity for households headed by an unemployed person (applies to all types of households except for the households of two adults with one dependent child where it was approximately the same percentage of very low and average work intensity (both approximately 38%) and households of type 8: other households without dependent children, where the work intensities were represented by the most uniform (approximately 25% very low, 25% low, 20% medium, 20% high and the rest very high work intensity).

In households headed by a person whose status of economic activity is not employed, high work intensity (severity level 1) and low work intensity (severity level 3) were significantly represented (over 20%) only in households of type 8: other households without dependent children and type 13: other households with dependent children. In other types of households in 2014 these two levels of work intensity were uncommon.

Looking at households with very low work intensity, the worst situation was in households with an unemployed person at the head of the household. In most households, households headed by an inactive person experienced a significantly lower incidence of very low work intensity (approximately 20% lower) than in households with an unemployed person at the head of the household. Exceptions were single-parent households and households of two adults with at least one person aged 65+, where the incidence of very low work intensity was comparable in households not headed by an employed person (in all three categories of economic activity – unemployed, inactive, retired). If the two types of households (one-person households and two-adult households with at least one person aged 65+) were headed by an unemployed person, inactive or retired, the incidence of very low work intensity exceeded 80%, which is the highest incidence of VLWI.

In particular, let us look at households headed by a retired person. For the household type with two adults (with one, two, or three and more dependent children, but also without dependent children), the average work intensity was 65% to 75%. Here it is clear that such a preference for a household with a status as a retiree (under 59) either partially exploited its labour potential or its non-inclusion in the labour market was mostly offset by the second adult of the household. In households with one adult (one-person household or one adult household with at least one dependent child) as well as in households with two adults, of whom at least one person is 65+, dominate very low work intensity

(when talking about households headed by a retired person), because they are not compensated by other adults. From these three household types, there is the lowest incidence of VLWI in one adult households and at least one dependent child, where we account for approximately 50% of households with very low work intensity, while in the other two types of households without dependent children it is more than 80% of households.

Analysis of the Interdependence of Economic Activity and Education of the Person at the Head of the Household on the Work Intensity of Slovak Households

The analysis of the multinomial logistic regression model (Table 6) confirms the significance of the impact of a person's education at the head of the household on the work intensity of households, not only when considering the individual impact, if we do not take into account the economic activity of the person at the head of the household (Table 3). Furthermore, we consider also the significance of the partial impact of education of the person at the head of the household when we establish the influence of the status of the economic activity of the person at the head of the household. The two explanatory variables (EAS and Education) together explained approximately 35.5% of the variability of work intensity. In this case, we diagnose a certain degree of multi-collinearity, as the EAS variable specifically explained 33.95%, and the Education variable separately explained 7.98% of the variability of work intensity, which is approximately 6.5 pp more than it was when analysing their joint impact.

Table 6. Verification of the statistical significance of the multinomial logistic regression model and the significance of the partial impact of the explanatory variables EAS and Education

Model Fit Statistics		
Criterion	Intercept Only	Intercept and Covariates
AIC	7893.683	6547.837
SC	7917.959	6742.046
-2 Log L	7885.683	6483.837

Testing Global Null Hypothesis: BETA=0			
Test	Chi-Sq	DF	Pr > ChiSq
Likelihood Ratio	1401.85	28	<0.0001
Score	1705.96	28	<0.0001
Wald	509.25	28	<0.0001

Type 3 Analysis of Effects			
Effect	DF	Wald Chi-Square	Pr > ChiSq
EAS	12	443.5914	<0.0001
HT	16	69.2282	<0.0001

R-Square	0.3553
Max-rescaled R-Square	0.3881

Source: own processing in SAS Enterprise Guide (EU-SILC 2015).

When comparing Table 4 and Table 6 it is clear that the predictive quality of the model with explanatory variables on the status of economic activity of the person at the head of the household and the type of household (Table 4) is better than the model with explanatory variables on the status of economic activity and the education of the person at the head of the household (Table 6), which confirms not only the coefficient of determination, but also the Akaike information criterion (AIC) and the Schwarz criterion SC (Hair *et al.*, 2010).

Table 7. Parameter estimates of the multinomial logistic regression model with the explanatory variables EAS and Education

Work Intensity	Intercept	EAS			Household Type			
		unemployed	inactive	retired	Less than secondary	Upper secondary	Post secondary	Tertiary 1
1	-1.451	1.183	3.680	2.225	0.873	0.172	0.415	-0.515
2	-1.510	2.482	4.366	3.598	0.726	-0.103	-0.832	0.012
3	-3.755	3.652	4.926	4.180	1.695	0.581	0.602	0.392
4	-5.732	6.603	8.008	6.936	3.053	0.740	0.419	-0.726

Source: own processing in SAS Enterprise Guide (EU-SILC 2015).

Let us look at the estimates of the probabilities of the degree of work intensity obtained on the basis of the multinomial logistic regression model in the two-stage classification of Slovak households according to the status of economic activity and the education of the person at the head of the household (Figure 4). The results confirm that households headed by an employed person have the greatest difficulty in using the work potential of those households whose person at the head of the household has less than secondary education. If the person at the head of the household has less than secondary education, even if he or she is employed, the households of these preferences have a very high degree of work intensity at only 45% and the probability of high work intensity is 25%.

Certainly, in all education groups there are greater problems with the use of work potential if the person at the head of the household is not employed. Households headed by a person with lower secondary education and whose status of economic activity is inactive, retired or unemployed, they hardly ever have very high work intensity. Therefore, 75% of these households have very low work intensity. In households where the person at the head of the household is not employed, we record a relatively high risk of very low work intensity in all education groups. In these households, the probability of very low work intensity of less than 25% is found only in groups of households headed by a person with higher education level (the exception are households headed by an unemployed person with a higher education level of 2nd or 3rd degree). The likelihood of very low work intensity risk for groups of households headed by a person with secondary education (upper secondary or post-secondary education) whose economic activity status is not 'employed' is between 30% and 50%.
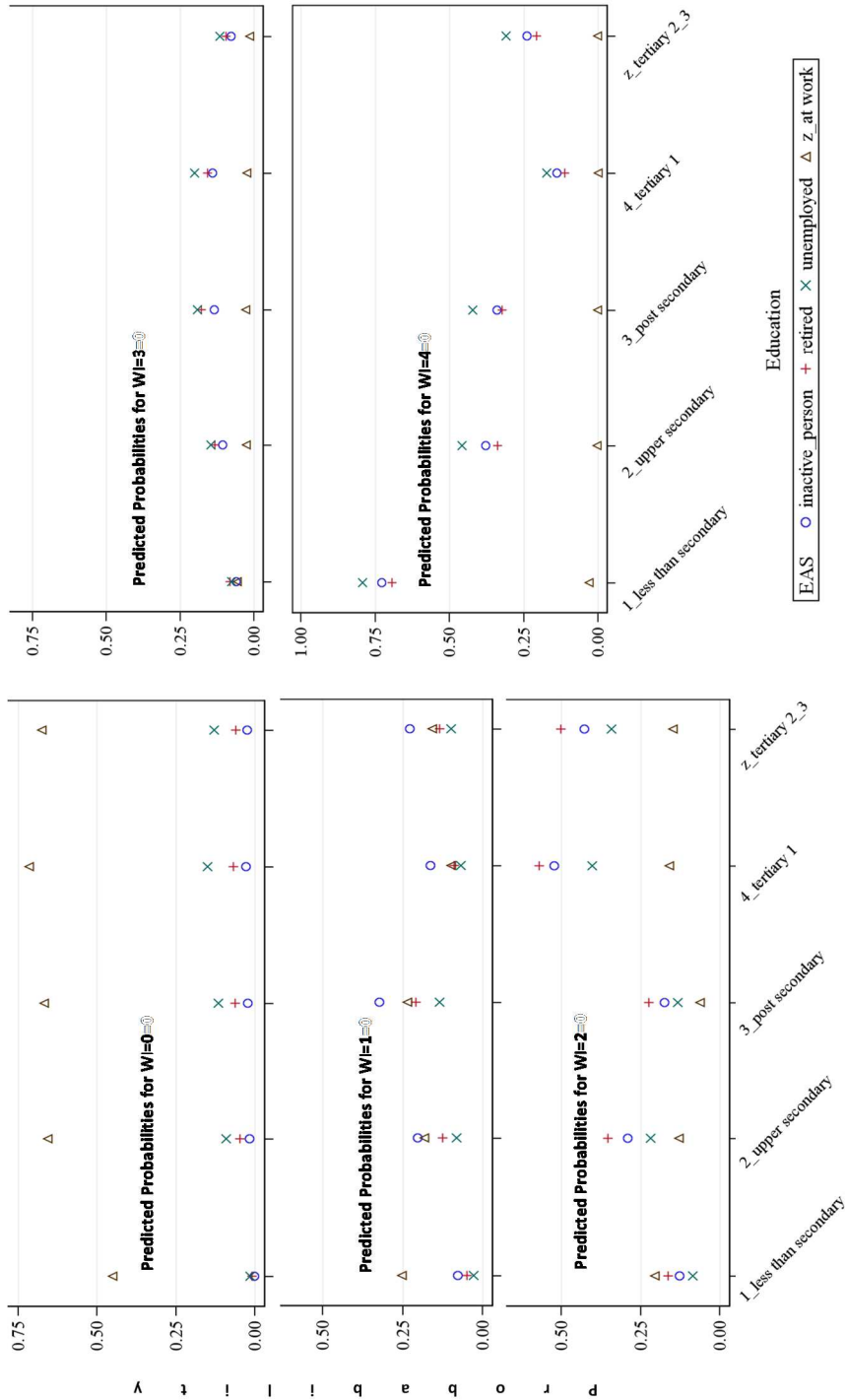
Figure 4. Estimated probabilities of individual degrees of work intensity of Slovak households depending on the status of economic activity and education of the person at the head of the household

Source: own processing in SAS Enterprise Guide (EU-SILC 2015).

CONCLUSIONS

The contingency analysis confirmed that the economic activity of the person at the head of the household, the highest educational attainment of this person, as well as the type of household in 2014 significantly influenced the work intensity of Slovak households. The work intensity of household was naturally determined most by economic activity. By comparing the impact of the other two factors, we considered contradictory results based on contingency analysis and correspondence analysis. While contingency analysis and logistic regression showed a greater impact of the household type, we did not identify any type of household in the correspondence analysis, which would be characterised by very low work intensity, and that the household type causes less disparity in the work intensity of household than the education of the person at the head of the household.

The very low work intensity which defines (quasi-) jobless households is typical for households headed by an unemployed person or a person with less than secondary education. This is the expected result which is consistent with more scientific work. On the other hand, the very high degree of the utilisation of the work potential is characteristic for households headed by an employed person and for households headed by a person with higher education level (this affirmation has been confirmed for all three levels of higher education). While the social inclusion monitor in Europe (Atkinson *et al.*, 2017) says that in 2012 (quasi-) joblessness was typical for households with three or more children, our analysis for 2014 did not confirm this. The exclusion from the labour market in 2014 was the most typical in Slovakia for households without dependent children, where there is no more than one person in productive age, specifically for households of two adults, of whom at least one is aged 65+ and one-person households. In general, their work potential is best used by two adult households with two dependent children or one dependent child. Based on correspondence analysis as well as multinomial logistic regression, we concluded that for households with two adults and at least three children there is a typical medium level of work intensity (utilisation of 45-55% of working potential) and very high degree of work intensity is atypical for them. Even if the head of such a household was an employed person, the use of work potential above 85% was only for 50% of households.

In all types of households, the highest rate of (quasi-) jobless was in households where an unemployed person was at the head of the household. In households with an inactive person, we found a significantly lower rate of very low work intensity in most households (approximately 20% lower) than in households with an unemployed person at the head of the household (except for households with one adult person and households with two adults of whom at least one person is aged 65+). From households in which the person at the head of the household did not have the status of 'employed', exclusion from the labour market was least relevant for households headed by a retired person.

The multinomial logistic model, which resulted in estimates of the probabilities of each degree of work intensity depending on the economic activity and at the same time depending on the education of the person at the head of the household, proved that with an increase in the education of the person at the head of the household in all groups of households broken down by the status of economic activity the predilection of the household increases the likelihood of very high work intensity and it reduces the probability of exclusion from the labour market ((quasi-) joblessness). Interestingly, however, this relationship does

not apply to households headed by the person with the highest level of education at tertiary 1 level and by households where the person at the head of the household has a tertiary 2 or tertiary 3 degree of education. Surprisingly, the best results in terms of the utilisation of work potential were achieved by households with a bachelor's degree of higher education, which has been confirmed for all economic activity statuses.

From our point of view, in this article we have considered the most important factor affecting the level of work intensity of the household. The results of the analysis pointed to the categories of households which may be expected to accumulate a number of disadvantages – in terms of the impact of the factors observed. Especially in these categories that emphasis should be placed on monitoring the fulfilment of the national goal of reducing poverty and social exclusion. It would create the conditions for a possible modification, the addition of existent policies and measures.

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The Investigation into Determinants of Regional Exports Base: Panel Analysis for Spanish and Polish Regions

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A B S T R A C T
Objective: We use the small open economy concept to identify the determinants of region's exports at a NUTS-2 level for Poland and Spain over the period 2005-2015.
Research Design & Methods: We apply the Prais-Winsten method for Panel Corrected Standard Errors (PCSE) on a data panel allowing for heteroskedasticity and autocorrelation estimating a model of regional exports for a joint sample of Polish and Spanish NUTS-2 regions.
Findings: We identify a number of factors which statistically significantly determine exports arising from Polish and Spanish regions. These factors are classified into the following main groups: factor conditions, FDI, infrastructure, market conditions, remoteness and geography, spatial agglomeration and technological knowledge base.
Implications & Recommendations: By going beyond national trade statistics, we provide evidence which can be used at the regional level to increase participation of regions in the world economy. Political decisions which are taken at the regional level seem to matter.
Contribution & Value Added: This paper combines scientific knowledge from several perspectives: international economics and international business, as well as regional science. We believe that an interdisciplinary approach is necessary to increase the knowledge which goes beyond nations, while not focusing on firms, as units of analysis.
Article type: research paper
Keywords: exports; region; Poland; Spain; panel-data; PCSE; determinants
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INTRODUCTION

The interest in the regional perspective of exporting has grown over the years. Data on exports of enterprises established in regions within countries (i.e. subnational units) have gradually become more available. Regional authorities show more interest in their export potential because globalisation makes the regional economies more open and vulnerable to external economic shocks. The international trade channel has become an important factor influencing a region's economic performance, including the dynamics and volatility of economic growth as well as the labour market performance. Due to the economic transition and the accession to the European Union (EU), Poland's regions have become more open than ever. For regions of both Poland and Spain (an EU country similar to Poland in terms of the size and number of administrative units), being part of the EU's internal market with free circulation of goods and capital – exerts competitive pressure that can be regarded a stress test, showing the regional adaptive capacity and competitiveness.

Regions differ in many aspects, including size, the structure of the economy, the overall level of development, human as well as physical capital endowment, attractiveness to investors, transport infrastructure, proximity to foreign markets, etc. Foreign trade activity is another sphere in which regional disparities can be observed, which so far has often been neglected (Umiński, 2016).

We focus on identifying factors which determine the so-called export base of regions. This question has not been thoroughly tackled in the empirical literature. If determinants of region's foreign trade relations are investigated, they are mostly analysed with the use of a gravity approach (Brodzicki & Umiński, 2018; Márquez-Ramos, 2016b). The gravity concept offers many advantages and gravity related models, in fact, they have become the main tool of analysis of the intensity of bilateral trade relations. However, their major disadvantage is often the limited availability of data in a region-country framework. This disadvantage makes the identification of many interesting factors affecting trade difficult. On the other hand, the availability of data for individual regions is notably greater.

We investigate empirically the determinants of the regional export base using panel data models. We do it for regions from two EU Member States – Poland and Spain. Both countries are relatively large member states of the EU, situated on its peripheries. Each of them is bordering a 'big neighbour', which for Spain is France and for Poland – Germany. The neighbour is the main partner in foreign trade. In addition, Spain and Poland are at the roughly similar level of development. Both countries did not belong to the founding six member states of the European Economic Community (EEC), as they joined the EU later. Both underwent a transition from dictatorship to democracy, they are similar in size and population, as well as in the number of NUTS-2 regions (16 in Poland, 19 in Spain). Despite the similarities, there are important differences between them. Poland is currently not a member of the eurozone (it enjoys temporary derogation). Both countries differ from an institutional point of view. The two-country perspective helps to identify more universal rules regarding the determinants of exports, therefore allowing to draw more robust conclusions. On the other hand, the differences between the two countries can also be traced. Altogether 35 NUTS-2 regions are analysed which represent a large research object. The analysis covers the period 2005-2015.

We contribute to the body of the literature by using regions from a two-country perspective, which makes our results and observations more universal than for one country case, as exports for regions is usually assessed. We use the statistical data which are not simulated/estimated (as is often the case in similar research), which allows our research to reflect the nature of regions' exports better. Furthermore, we contribute to previous knowledge on the determinants of the regional export base, including a number of factors which have been typically neglected. Last but not least, by identifying export-affecting factors, we provide important information for decision makers responsible for export promotion at the regional level.

We utilize data from a number of sources: Polish Customs Chamber (Izba Celna) and DataComex Español, the Quality of Government EU Regional Dataset (Charron *et al.*, 2016) and from Polska Agencja Informacji i Inwestycji Zagranicznych (PAIiIZ), as well as the Spanish Ministry of Economy and Competitiveness. We also utilize Penn World Tables PWT 9.0. (Feenstra, Inklaar, & Timmer 2015).

The remainder of the paper is structured as follows. Section two reviews theoretical and empirical analyses on the discussed topic. Section three presents the dataset, reviews the data sources and presents our empirical strategy and methods of econometric estimation. Section four presents the results. The last section discusses the key results and concludes.

LITERATURE OVREVIEW

Essentially, we refer to the economic base theory as an underlying concept which links regions to the external economy. The economic base concept is predominantly under-stood as a method of analysis which divides the region's economy into the output consumed outside it and the one absorbed internally (Sirkin, 1959). Initially, no par-ticular attention was paid to whether the external sector means a foreign one, or not (North, 1955). Our interpretation of the export base model is in terms of 'foreign' ex-ports; factors stimulating the exports of a region are of the supply-side nature, how-ever, the discussion about the supply and demand aspects of the export base model is on-going in the literature (Ha & Swales, 2012).

International economics provides many theoretical concepts which explain trade. Their application to the regional scope of analysis is, however, limited. For a long time, economists have been treating countries as if regions did not exist. Export flows come from an unde-fined, homogenous space, which is in contrast with the reality in which countries are inter-nally diversified in many respects. They are lumpy (Brakman & van Marrewijk, 2013; Courant & Deardorff, 1992), which manifests in differentiated factor endowments, the economic structure and thus production, employment and product profiles, proximity to foreign mar-kets, transport infrastructure as well as human capital availability. The consequence of une-venness is the differentiation of the regional export base that determines the ability of a given region to participate in the external economy.

The new-new theory of international trade allows firms to differ (Mayer & Ottaviano, 2008; Melitz, 2003). The firm-level asymmetry is revealed in the fact that only some firms export, once they reach the necessary productivity threshold. Heterogeneity manifests in other aspects of firms' activity and embraces their innovative capacity. In addition, firms' endogenous location decisions matter. The regional portfolio of firms thus has to be taken into account as one of the key determinants of regions' exports. The most competitive

regions attract the bulk of the most competitive firms, which is reflected in the agglomeration processes around metropolises (Parr, Hewings, Sohn, & Nazara, 2002).

Foreign ownership can be treated as another aspect of firms' heterogeneity. Foreign-owned entities (FOEs) possess ownership, localisation and internalisation advantages which contribute to their superior market performance. They fulfil functions described by Forsgren (2008) as dominators, coordinators, knowing firms (creating values), designers, networkers or politicising multinationals. Their influence on the regional economic performance is supposed to be positive for both Spanish and Polish regions, although the MNE are named by Forsgren (2008) 'a beauty and a beast', which relates to both positive and adverse consequences of their activity. Their impact on regional exports depends also on the structure of incentives which drive the FOEs activity, which can be a market, resources, efficiency and strategic assets and capabilities seeking (Dunning & Lundan, 2008). Also, the character of the multinational structure matters, as it determines the position and functions performed by a particular firm within the MNE (Estrin, Meyer, Wright, & Foliano, 2008). At a more aggregated level, the nexus between foreign direct investment (FDI) and regional exports is more complex, with a number of factors playing a role, such as the vertical or horizontal nature of the FDI or the structure of the regional economy affecting the absorptive capacity. These factors have been analysed both for Spain (e.g., Rodriguez & Pallas, 2008; Villaverde & Maza, 2012), as well as for Poland (e.g. Gradzewicz & Kolasa, 2005; Kolasa, 2008, Cieślik, 2017a, 2017b) in the hereto literature of the subject, but not in the direct context of the present study. Taking all factors into account and remembering the nuances, we expect the FDI to play a significant and overall positive role in determining the regional export base.

A theory which brings together localisation issues, agglomeration and international trade is New Economic Geography (NEG). The concept of heterogeneity is implemented to NEG models (Baldwin & Okubo, 2005; Ottaviano, 2011), which makes them more realistic also through reducing the chances of the so-called catastrophic agglomeration. NEG seems to be the proper framework for the analysis of regions' exports determinants. Spanish and Polish regions are the EU member states, witnessing falling trade costs and pursuing enhanced integration within the EU's internal market. Within both countries, the regions are different, some of them are peripheral, while others are more central. The peripherality (or 'centrality') is further induced by the activity of FOEs, which tend to agglomerate predominantly in the most competitive regions.

As a conceptual framework alternative to NEG, Evolutionary Economic Geography (EEG) ought to be mentioned (Boschma, 2005; Boschma & Frenken, 2011). It puts a strong emphasis on path dependency, institutional quality, related variety and regional spin-offs.

The research focused on determinants of exporting activity at the regional level is not affluent. Naudé and Gries (2009) paid attention to the role of geography and relative factor endowment. The following main determinants of regional exports have been identified: the economic size of a region (the home market effect), better access to foreign markets, low transport costs, high quality of local institutions and high skills to labour ratio. In another study for South Africa, Matthee and Naudé (2008) conclude that in the case of a developing country's regions, the distance to the nearest port is a more important determinant, compared to the European regions' case.

Nicolini (2003) used a 'beyond gravity' approach in the assessment of the export potential of six European regions, focusing on the importance of transport costs and the home market effect. Berube and Parilla (2012) argue that metropolitan areas are essential for international trade. In the global economy, cities return to the role they traditionally used to play – as major commercial nodes in international trade. Also, Guerrieri and Iammarino (2006) have found for Italian regions that significant export capacity is accompanied by regional clustering and the so-called contextual dynamism related to the high standard of living.

Simmie (2002) argues that the export base theory seems to be a seriously revisited theory explaining the nexus between regional competitiveness, regions' exports and clustering of economic activity. Simmie (2003) identifies urban regions as international nodes of sharing and transferring knowledge, which generate competitiveness and exports. A similar conclusion has been formulated by Becchetti, Panizza and Oropallo (2007). Firms located in industrial districts export more than firms located elsewhere and there are self-reinforcing relationships between productivity and growth, stimulating exports.

Andersson and Johansson (2010) have shown that regions' endowment in human capital influences the structure of exports. This is the extensive trade margin that is predominantly affected by diverse endowments in human capital. Larger municipalities in Sweden have higher volumes of exports. Johansson and Karlsson (2007) prove that accessibility to R&D (for Swedish regions) positively influences the number of exported products, exporting firms and destinations.

The question of countries' internal lumpiness has been inquired by Brakman and van Marrewijk (2013), who conclude that the lumpy distribution of production factors and urbanisation could exert influence on trade patterns and make them differ from the predictions of Heckscher-Ohlin model. Cassey (2011) confirms that exports are highly concentrated regionally and border regions export more than interior ones.

Wahl (2016) has shown the consequences of the existence of historical trade centres and contemporary development that are transmitted through agglomeration processes, which in the light of the research on regions' exports brings important conclusions about the role of historical factors. Pradhan and Zohair (2016) have identified spatial differences that influence heterogeneity in the exports performance of regions.

As far as the role of FDI is concerned, Sun (2001) concludes that the FDI impact on the exports of Chinese regions differs. For coastal regions it is stronger than for inland ones, while for western regions it is insignificant. It is not surprising, taking into account the complex relations between FDI, exports, imports and regional growth.

Ciżkowicz, Rzońca and Umiński (2013) have found that regional export performance in Poland is positively influenced by the labour productivity, the share of foreign-owned enterprises in employment, regions' educational characteristics and location at the border of the country. Brodzicki and Umiński (2018) in the analysis of the panel model for the exports of Poland's regions pointed the role of municipalities, as well as of the historical legacy.

The above-presented literature proves that different determinants have been used in the inquiry into the exports of regions. Pradhan and Das (2015) have conceptualised regional export competitiveness factors, which influence exports, into the following groups: market conditions, factor conditions, spatial agglomeration, FDI and technological knowledge base. Márquez-Ramos (2016a) in a study of international trade of Spanish regions distinguished

three components of the institutional environment (international, supranational and a sub-national context). Within the subnational context, the following region's (exports origin) characteristics are distinguished: income, income per capita, remoteness and geography and infrastructure. The list of explanatory variables in the present study, together with their definitions and predicted impact on the dependent variable, is provided in Table 1. Following Pradhan and Das (2015) and Márquez-Ramos (2016a), they are grouped into the following categories: factor conditions, FDI, infrastructure, market conditions, remoteness and geography, spatial agglomeration and technological knowledge base.

MATERIAL AND METHODS

The data panel which we use was constructed for 16 NUTS-2 level regions of Poland (voivod-ships) and 19 NUTS-2 level regions of Spain (17 autonomous communities and 2 autonomous cities) over the period of 2005-2015. This gives a total of 385 observations. Due to missing data in some of the specifications considered, the number of observations falls to 340. The data were acquired from a number of sources. The data on exports for Polish and Spanish regions were obtained from the Polish Customs Chamber (Izba Celna) and DataComex Espa-ñol database (http://datacomex.comercio.es). The log of the value of region's exports is our dependent variable. The data for regions were predominantly acquired from the Quality of Government EU Regional Dataset (Charron *et al.*, 2016). The data on FDI inflows by trade partner into regions were obtained for Poland from PAIiIZ (currently Polska Agencja In-westycji i Handlu – PAIH) and from http://datainvex.comercio.es, as well as from the Spanish Ministry of Economy and Competitiveness for Spain.

The data on regional total factor productivity (TFP) were obtained in the following way. We utilized the Penn World Tables PWT 9.0. country-level TFP yearly estimates for Poland and Spain and then we approximated the regional TFP using the ratio of regional real GDP per capita to the national mean. The observed variation in income per capita is mostly driven by differences in TFP (Easterly & Levine, 2001) and thus TFP is generally considered the prime determinant of regional real GDP per capita. TFP differences are substantial between regions from different countries, as well as between regions within countries and to large extent can be attributed to discrepancies in economic geography and historical development paths (Beugelsdijk, Klasing, & Milionis, 2017). The estimation of TFP at the regional or subregional levels encounters a number of problems (Ciołek & Brodzicki, 2016). The method applied, despite a potential bias, allows us to be coherent with the TFP estimates at the level of countries.

The dummy variables for the border region, the access to sea or capital region are the result of own elaboration. In order to account for the metropolitan status of a re-gion, we took the ESPON study (Dühr, 2005) on metropolitan areas in the European Union and constructed a dummy variable for metropolitan regions (metro), and in ad-dition we took into account the MEGA classification thus creating dummy variables for MEGA 1, 2, 3 & 4 regions (mega1, mega2, mega3 & mega4). In the case of the Spanish or Polish regions, MEGA 2 does not occur. The descriptive statistics of the utilized var-iables, their definitions and sources are given in Table 1.

The empirical strategy in the present article is the following. We construct a basic specification of the model of regional exports and then extend it to test a number of hypotheses. The analysis is conducted jointly for a sample of Polish and Spanish NUTS-

2 regions. We checked the robustness of the results by splitting the sample of the regions into two national subsamples – it does not affect the key results. The addition of the fixed temporal effect does not significantly affect the results, either (the estimates will be made available upon request).

The selection of the method of estimation method was made on the basis of the review of empirical literature on the subject undertaken and upon investigation of the data in our two-country regional panel data sample. Several possible estimation methods were investigated. For instance, Ciżkowicz *et al*. (2013) in their empirical analysis for Polish regional exports utilized four approaches: standard pooled type estimator (OLS), Panel Corrected Standard Errors (PCSE) on a panel of data, PCSE – AR – allowing for heteroskedasticity and autocorrelation in panels and finally generalised least squares (GLS) – assuming the autocorrelation coefficient is fixed for the whole panel.

In the case of our study, we deal with regions of Poland and Spain considered jointly. Thus, heteroskedasticity could be an obvious problem. We first estimate the base specification of the model (M1) on pooled data using OLS estimator. Then in the postestimation phase, we apply the Cook-Weisberg test for heteroskedasticity (hettest). The value of the chi2(1) test (263.46) points to a rejection of the null hypothesis of constant variance. Therefore, as expected we deal with heteroskedasticity. Furthermore, the analysis shows that we deal with autocorrelation and that it differs between the regions considered. Therefore, we adopt PCSE-PSAR1, that is Prais-Winsten regression, with correlated panels corrected standard errors (PCSEs). Beck and Katz (1995) have shown that in this case Prais-Winsten estimates with PCSEs is superior to FGLS estimates.

In order to identify the differences clearly, we present each specification of the model twice. Firstly, it is estimated on pooled data with OLS assuming homoskedasticity and lack of autocorrelation. And, secondly, on panel data using Prais–Winsten estimator with PCSEs allowing for actual heteroskedasticity and the region-specific autocorrelation process. Our interpretation is based on the second approach. The estimates are provided in Table 2.

RESULTS AND DISCUSSION

Several specifications of the model were tested with the use of different estimation methods in accordance with our empirical strategy described above. The baseline specifications are M1 and M2. M1 presents the estimates of the pooled OLS model and M2 of the preferred method – PCSE-PSAR1, allowing for heteroskedasticity and region-specific autoregressive process. The results obtained are in line with our expectations (Table 1, column 'expected sign' and Table 2). Furthermore, PCSE-PSAR1 estimation method brings the highest goodness of fit. As it could be expected, both methods give slightly different magnitudes impact of the independent variables on the value of exports.

A way of validating the results is to observe whether they are robust for the different specifications. Looking at all specifications considered (M1 – M16), the basic factors taken into account, in most of the cases, are statistically significant and their impact on the dependent variable is in line with theoretical expectations. The impact of a region size, as measured by the log of its total population, is positive. This is in line with Nicolini (2003) and the concept of the home market effect, fundamental to NEG theories. Among factors, also the size of the region in terms of its area in square km has a positive impact. The share

of agriculture in regional employments exerts a negative impact and the share of manufacturing in total employment a positive impact – on the value of a region's exports. It is in line with the expectations. Looking from that perspective, deindustrialisation could be considered a major threat to a region's export base. The reindustrialisation postulate, pursed at the EU level, implemented in Poland – would thereof positively influence the regional export base. On the other hand, in the case of less developed regions, these are agricultural products that represent an important share of exports. Having comparative advantages related to food and agricultural products can also constitute good prospects for exports, especially if marketing capabilities and human capital (necessary to successfully penetrate foreign markets) will be improved. At the same time, more developed regions – as shown by the log of their real GDP per capita – ceteris paribus, export more. Among the other basic factors, their impact is generally positive – border regions show superior export performance, direct access to the sea proves beneficial and finally, this applies to the metropolitan status of a region (metro).

In the M3 and M4 specifications, we controlled for geographical/remoteness variables which are the longitude and the latitude of a region's capital city, of which only the latter has a significant (and positive) impact on the dependent variable. The latitude of the capital city of the region in the literature is treated as the one, which reflects the climate characteristics. In fact, little is known about the influence of latitude on exports; however, some correlation can be seen with agglomeration propensity. For instance, Chasco, Lopez and Guillain (2012) have found lower latitude to be negatively correlated with economic agglomeration in a panel of European NUTS-2 regions. Our results are in line with this observation. The introduction of latitude (which turned to be significant and which positively influences exports) eliminated the significance of the variable metro. Thus, the variable latitude took over the influence of variable metro.

At the same time, greater longitude (more easterly location) exerts a negative impact on the value of regional exports. We argue that this could reflect the impact of more peripheral location in Europe.

In the next specifications (M5-M6), the FDI factor was included, as the cumulated number of FOEs in a region. With high statistical significance, it positively affects the value of regional exports. The inclusion of this variable reveals the export-creating nature of FOEs, however, a higher magnitude was expected. The nature of FOEs is probably of large bearing, and it should be a matter of further research – if more precise data on FOEs would be available. It would be, for instance, interesting to inquire into the distribution of FOEs by size, as these are the largest of them (that are MNEs) which are able to fulfil functions described by Forsgren (2008). Smaller FOEs are not able to positively contribute to exports, in comparison to 'big' multinationals. The obtained results show the export-creating nature of FDI. However, in order to robustly prove the complementarity between trade and FDI, information on the impact of the share of FOEs in the regions' exports would be recommended to include in the model. Unfortunately, this kind of information is not available for Spain.

The inclusion of the number of FOEs reduced the magnitude of influence exerted by the population size (with the PCSE-PSAR1 method) and resulted in the increased magnitude of the metropolitan dummy. This reflects the role of metropolises as the nodes of globalisation. Metropolises also attract the bulk of the FOEs. We expect the increasing role of the metropolitan areas as a factor determining regional exports. Exporting is

a difficult activity, requiring human capital capabilities, as well as sharing, matching and learning. The proximity to other exporters which cluster in and around metropolises, positively affects spillover effects (Duranton & Puga, 2004).

In the next specification, we look closer at the status of the region (M7-M8). It is clear from the obtained results that capital regions, ceteris paribus, export more. We furthermore differentiate between the significance of the metropolitan centre of the region by applying the ESPON's MEGA classification. It seems that the impact of MEGA1 and MEGA4 is significant. The impact of MEGA 3 is positive but insignificant. This could be the effect of Mazowieckie (with Warsaw), being the capital region of Poland (which is not the case with Madrid, classified as MEGA1).

In M9-M10 we control for region's TFP. In this specification, the real GDP per capita is omitted due to co-linearity reasons. The impact of TFP on the regional exports is positive and statistically significant. More productive regions, ceteris paribus, export significantly more. This is in line with both our expectations and the predictions of the firms' heterogeneity concept by Melitz (2003).

In M11-M12 we control for a region's innovative potential. We do it, firstly, by accounting for the human capital endowment. Its impact on the regional exports is found to be insignificant, which is at least surprising. Secondly, contrary to our expectations, and to the predictions of the heterogeneous firms' concept, the impact of business expenditures on R&D as a percentage of real GDP of a region is not statistically significant.

In the last specifications (M13-M16), we control for transport infrastructure endowment of the region (the estimated coefficients are expected to be positive, see Table 1 and, for example, Bensassi, Márquez-Ramos, Martínez-Zarzoso and Suárez-Burguet, 2015). In M15-M16 we omit the impact of direct access to the sea, to be able to verify the effect of a seaport (as shown by the size of maritime transport). The impact of railways is positive and statistically significant. The impact of motorways is positive, however, significant only at 10% level. The impact of other roads, ceteris paribus, is negative and insignificant or significant only at 10% level. Surprisingly, the impact of maritime transport (as a measure of a seaport size) is adverse and statistically significant in M14. It becomes insignificant if the impact of the location at the seaside is excluded. The result could be related to the significance of road transport in the intra-European trade, which in turn plays a dominant role in trade relations of the analysed regions. Finally, the impact of the airport (as shown by airport freight size) is statistically insignificant.

CONCLUSIONS

Taking into consideration that regions perform many important functions, we pay attention to an often-neglected one, which is international trade. The focus on regional determinants of exports rests on the general assumption that regions can be treated as small open economies. This enables to make use of a number of theoretical and empirical approaches which are used in international economics. The research presented has important policy implications, as regions are becoming increasingly interested in the engagement of firms in exports. In particular, regional authorities are active in exports' promotion, we evaluate its efficiency, as well as have noticed that export performance reflects regional competitiveness.

For the time being, the research into exporting activity determinants at the regional level is sparse. In the present study, we decided to combine a two-country perspective which enabled us to formulate more universal conclusions.

The aim of the research was to empirically identify factors which determine the exports of Polish and Spanish NUTS-2 regions. Upon the investigation of data and review of possibilities, we applied a robust method of estimation – namely PCSE-PSAR1 due to the presence of heteroskedasticity and region-specific autoregressive processes. The analysis was conducted jointly for a sample of Polish and Spanish NUTS-2 regions. In addition, we checked the robustness of the results by splitting the sample of the regions into two national subsamples, as well as by adding fixed temporal effect – it did not affect the key results.

The size of regions positively determines their exports (in line with Naudé and Gries (2009) conclusions), which is in line with the home market effect hypothesis. The share of agriculture in total employment has an adverse impact. On the other hand, manufacturing, as expected, in a positive way influences regions' exports. It brings an important policy implication that de-industrialisation could hamper regional export base, however, the increasing tradability of services could at least partially mitigate this effect.

The bordering regions have superiority in the access to foreign markets and this observation is in line with the gravity type model's conclusions. Also, the latitude of the region's capital is important, in fact, it reflects superior climate characteristics. Our results are in line with the observations by Chasco *et al*. (2012) that more southern latitude adversely affected the extent of economic agglomeration European NUTS-2 regions showed.

FDI turned out to positively impact regions' exports (in line with the results by Ciżkowicz *et al*., 2013). Nonetheless, a higher magnitude of impact was expected, as – at least in the case of Poland's regions – the share of FOEs in the exports of a particular region is high. However, we do not have data for the Spanish regions on the share of FOEs in exports, and therefore information on the number of FOEs was used instead. This aspect of research needs a more profound inquiry into the nature of the FDI inflow into regions, as far as the influence on exports is concerned (the role of large MNEs and the sectoral structure of FDI in particular).

Contrary to the expectations, human capital does not influence exports significantly; neither do business expenditures on R&D – our proxy for innovation potential. These aspects need further examination and, probably, different ways of the inclusion of human capital and R&D-related variables into the model. According to the predictions of the heterogeneity concept (new-new trade theory) and empirical research performed at the firm level, these two factors should positively influence exports. The question of the differentiation between an extensive and an intensive margin of exports is supposed to matter. However, as pointed by Johansson and Karlsson (2007), knowledge cannot be 'spatially trapped', which means that inter-regional accessibility to R&D should be more thoroughly assessed, also with paying attention to margins of exports.

Contrary to our expectations, the impact of maritime transport – which proxies the size of seaports – is negative, so is the size of the regional airport. It deserves further research and probably other ways of the inclusion of transport infrastructure-related variables into the model. The seaport size (and the size of the airport – respectively) generates positive spillovers on exports potential that are not only limited to the particular region in which this kind of infrastructure is located.

Table 1. Descriptive statistics of utilized variables

Variable	Description	Obs	Mean	Std. Dev.	Min	Max	Description	Expected sign	Factor
ln_exp_v	N. log of region's export value (M EUR)	385	21.93408	2.099095	11.2649	24.86736	Izba Celna & DataComex Español		Dependent variable
ln_pop	N. log of region's population	385	7.3962	1.034942	4.173002	9.035941	QoG Regional dataset	+	Factor conditions/Size
agriculture	Employment in agriculture, forestry & fishing as % of total	385	5.927273	7.192307	0	29.3	QoG Regional dataset	-	Market conditions
manufacturing	Employment in manufacturing as % of total	385	10.08571	9.309274	0	26.9	QoG Regional dataset	+	Market conditions
ln_gdp_pc	N. log of real GDP per capita in EUR	340	2.903982	0.5555303	1.808394	3.832792	QoG Regional dataset	+	Market conditions
ln_area	N. log of area of a region sq km	385	9.407294	1.796842	2.564949	11.45346	QoG Regional dataset	+	Factor conditions/Size
borderregion	Dummy variable – border region	385	0.5428571	0.4988081	0	1	Own elaboration	+	Remoteness and geography
access_to_sea	Dummy variable – direct access to sea	385	0.3142857	0.4648348	0	1	Own elaboration	+	Remoteness and geography
metro	Dummy variable – metropolitan region in accordance with ESPON MEGA classification (MEGA 1-4)	385	0.3714286	0.4838154	0	1	Own elaboration based on EPSON classification	+	Spatial agglomeration
capital	Dummy variable – capital region	385	0.0571429	0.2324174	0	1	Own elaboration	+	Spatial agglomeration
mega1	Dummy variable – metropolitan region MEGA 1 in accordance with ESPON classification	385	0.0571429	0.2324174	0	1	Own elaboration based on EPSON classification	+	Spatial agglomeration
mega3	Dummy variable – metropolitan region MEGA 3 in accordance with ESPON classification	385	0.0571429	0.2324174	0	1	Own elaboration based on EPSON classification	+	Spatial agglomeration
mega4	Dummy variable – metropolitan region MEGA 4 in accordance with ESPON classification	385	0.2571429	0.4376275	0	1	Own elaboration based on EPSON classification	+	Spatial agglomeration
latitude	Latitude of region's capital city	385	45.30524	6.692785	28.15	54.35	QoG Regional dataset	+/-	Remoteness and geography
longitude	Longitude of region's capital city	385	6.748095	11.89425	-15.41667	23.15	QoG Regional dataset	+/-	Remoteness and geography
ln_no_fdi_cum_za	N. log of cumulated no. of FDI in a region, zero adjusted	385	3.582096	3.692235	-6.907755	9.802451	PAIiIZ & DataInvex Español	+	FDI
tfp	TFP of a region	340	0.5797839	0.214931	0.2530706	1.131817	Own elaboration based on QoG Regional dataset and PWT 9.0	+	Market conditions
hc	Human capital proxy – share of population with tertiary education in population 24 - 65	385	23.43299	10.24693	0	47.2	QoG Regional dataset	+	Factor conditions
berd	Business Expenditures on R&D as % of real GDP of a region	385	0.2786753	0.3565416	0	1.7	QoG Regional dataset	+	Technological knowledge base
ln_transp_rail	N. log of total railway lines (km)	385	3.223167	6.046421	-6.907755	7.785721	QoG Regional dataset	+	Infrastructure
ln_transp_motorway	N. log of motorways (km)	385	0.7780959	6.19977	-6.907755	7.80873	QoG Regional dataset	+	Infrastructure
ln_transp_road	N. log of other roads (kilometre)	385	6.126701	6.332717	-6.907755	10.88138	QoG Regional dataset	+	Infrastructure
ln_transp_maritime	N. log of maritime transport, freight loaded and unloaded (1000's tonnes)	385	-1.453063	7.872984	-6.907755	11.69182	QoG Regional dataset	+	Infrastructure
ln_transp_airport	N. log of air transport, freight and mail loaded and unloaded (1000's tonnes)	385	-3.711337	4.572918	-6.907755	6.045008	QoG Regional dataset	+	Infrastructure

Source: own study.

Table 2. OLS and PCSE-PSAR1 estimates of regional exports model on joint Polish & Spanish NUTS-2 sample

Variable	M1 pooled OLS	M2 PCSE-PSAR1	M3 pooled OLS	M4 PCSE-PSAR1	M5 pooled OLS	M6 PCSE-PSAR1	M7 pooled OLS	M8 PCSE-PSAR1	M9 pooled OLS	M10 PCSE-PSAR1
ln_pop	0.862***	0.507***	1.165***	1.194***	0.730***	0.387***	0.761***	0.527***	0.823***	0.498***
	(0.111)	(0.0864)	(0.120)	(0.178)	(0.129)	(0.101)	(0.127)	(0.147)	(0.1078)	(0.0834)
agriculture	-0.0401***	-0.0127*	-0.0372***	-0.0139**	-0.0409***	-0.0172***	-0.0406***	-0.0138*	-0.0295***	-0.0128
	(0.00898)	(0.00663)	(0.00845)	(0.00632)	(0.00895)	(0.00574)	(0.00899)	(0.00703)	(0.00896)	(0.00844)
manufacturing	0.0517***	0.00903	0.0293***	0.00352	0.0480***	0.00934	0.0532***	0.0102	0.0481***	0.0125
	(0.00664)	(0.00691)	(0.00641)	(0.00663)	(0.00686)	(0.00600)	(0.00665)	(0.00701)	(0.00643)	(0.00817)
ln_gdp_pc	0.450***	0.650***	1.514***	1.145***	0.256*	0.421***	0.380***	0.630***		
	(0.0923)	(0.0940)	(0.159)	(0.293)	(0.133)	(0.134)	(0.0981)	(0.115)		
ln_area	0.537***	0.776***	0.372***	0.416***	0.514***	0.734***	0.570***	0.767***	0.547***	0.765***
	(0.0528)	(0.149)	(0.0609)	(0.0960)	(0.0537)	(0.154)	(0.0577)	(0.140)	(0.0511)	(0.142)
borderegion	0.139	0.169***	0.169*	0.336***	0.158	0.178***	0.176*	0.169**	0.1418	0.127***
	(0.0961)	(0.0441)	(0.0863)	(0.0864)	(0.0962)	(0.0652)	(0.103)	(0.0724)	(0.0919)	(0.0291)
access_to_sea	0.227**	0.190***	0.269***	0.0795	0.211**	0.154**	0.322***	0.310***	0.2686***	0.333***
	(0.100)	(0.0611)	(0.0962)	(0.0853)	(0.100)	(0.0710)	(0.107)	(0.0759)	(0.0962)	(0.0623)
metro	0.383**	0.790***	-0.217	0.102	0.433***	0.753***			0.3715**	0.767***
	(0.155)	(0.101)	(0.155)	(0.208)	(0.156)	(0.104)			(0.1492)	(0.118)
latitude			0.105***	0.164***						
			(0.0225)	(0.0257)						
longitude			0.00553	-0.0496*						
			(0.0150)	(0.0272)						
ln_no_fdi_cum_za					0.0556**	0.0734***				
					(0.0278)	(0.0212)				
mega1							0.477	0.741**		
							(0.342)	(0.340)		
mega3							0.238	0.379		
							(0.284)	(0.295)		
mega4							0.366**	0.721***		
							(0.159)	(0.130)		
capital							0.613**	0.438***		
							(0.270)	(0.0879)		
tfp									1.566***	1.081***
									(0.2317)	(0.329)
constant	8.546***	8.557***	0.381	-1.476	10.13***	10.33***	9.100***	8.559***	9.096***	9.897***
	(0.492)	(1.248)	(1.189)	(2.339)	(0.932)	(1.188)	(0.587)	(1.601)	(0.423)	(1.379)
Observations	340	340	340	340	340	340	340	340	340	340
R-squared	0.873	0.993	0.899	0.994	0.874	0.994	0.876	0.993	0.880	0.993
Number of reg_id		34		34		34		34		34

PCSE-PSAR1 - Prais-Winsten regression, correlated panels corrected standard errors (PCSEs). Standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1.

Source: own elaboration in STATA 14.

Table 2. continued

Variable	M11 pooled OLS	M12 PCSE-PSAR1	M13 pooled OLS	M14 PCSE-PSAR1	M15 pooled OLS	M16 PCSE-PSAR1
ln_pop	0.832***	1.510***	0.955***	0.470***	0.956***	0.489***
	(0.101)	(0.165)	(0.113)	(0.139)	(0.115)	(0.119)
agriculture	-0.0421***	6.42e-05	-0.0327***	-0.00848	-0.0373***	-0.0122*
	(0.00834)	(0.00631)	(0.00849)	(0.00646)	(0.00851)	(0.00740)
manufacturing	0.0436***	0.00426	0.0389***	0.00817	0.0425***	0.0100
	(0.00653)	(0.00544)	(0.00642)	(0.00645)	(0.00643)	(0.00712)
ln_gdp_pc			0.390***	0.435***	0.410***	0.543***
			(0.121)	(0.0999)	(0.122)	(0.0980)
ln_area	0.522***	0.305**	0.339***	0.662***	0.374***	0.679***
	(0.0483)	(0.134)	(0.0577)	(0.125)	(0.0576)	(0.120)
borderregion	-0.0208	-0.0635	0.0738	0.182**	0.0990	0.163***
	(0.0887)	(0.0503)	(0.0897)	(0.0741)	(0.0908)	(0.0606)
access_to_sea	0.322***	0.758***	0.579***	0.589***		
	(0.0910)	(0.107)	(0.172)	(0.108)		
metro	0.289**	0.0820	0.103	0.764***	0.165	0.911***
	(0.136)	(0.108)	(0.150)	(0.210)	(0.151)	(0.184)
hc	-0.00840	-0.00438				
	(0.00549)	(0.00471)				
berd	0.967***	0.0127				
	(0.158)	(0.134)				
ln_transp_rail			0.107***	0.0445*	0.140***	0.0588**
			(0.0212)	(0.0263)	(0.0191)	(0.0291)
ln_transp_motorway			0.0204*	0.0155*	0.0106	0.0125
			(0.0115)	(0.00940)	(0.0113)	(0.00952)
ln_transp_road			-0.100***	-0.0461	-0.129***	-0.0571*
			(0.0219)	(0.0303)	(0.0204)	(0.0328)
ln_transp_maritime			-0.0346***	-0.0163**	-0.00294	-0.00722
			(0.0112)	(0.00815)	(0.00615)	(0.00514)
ln_transp_airport			0.0260*	0.00593	0.0143	-1.57e-07
			(0.0146)	(0.0117)	(0.0144)	(0.0113)
constant	10.41***	7.374***	10.34***	10.49***	10.16***	10.02***
	(0.409)	(1.705)	(0.749)	(1.197)	(0.758)	(1.242)
Observations	385	385	340	340	340	340
R-squared	0.869	0.995	0.895	0.993	0.891	0.993
Number of reg_id		35		34		34

PCSE-PSAR1 - Prais-Winsten regression, correlated panels corrected standard errors (PCSEs). Standard errors in parentheses *** $p<0.01$, ** $p<0.05$, * $p<0.1$.
Source: own elaboration in STATA 14.

The utilized approach has its limits due to the nature of the estimated model and due to the utilized econometric methodology. We deal with the aggregated data flows. The choice of the variables was restricted by data availability. The presented research will be supplemented in a number of articles verifying the determinants of bilateral trade in a region-country framework using the gravity approach, as well as an article identifying the factors affecting the intensity and structure of intra-industry trade in the region-country framework. Furthermore, we do not account for the global value chains as the analysis was conducted at the aggregated level (regional exports) and we do not take into account the regional value added.

The future research should try to extend the sample of regions considered in the analysis by incorporating other countries, as well as take into account the impact of intracountry, interregional trade flows in order to test the robustness of the obtained results further. In addition, an analysis can be conducted for regional exports by sector in order to identify potential sectoral differences.

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Governmental Change and FDI Inflow to Poland and Hungary in 2010-2016

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A B S T R A C T
Objective: The purpose of this article is to explain if and how FDI flows have changed due to the most recent parliamentary elections in Poland and Hungary. The shift in governmental policies are said to affect the institutional settings in the host country and hence the willingness of foreign firms to invest. In the study we tried to identify any interdependencies between the FDI inflow and unexpected electoral results.
Research Design & Methods: Based on statistical data we applied a cross-country analysis to verify whether the perceived higher investment risk truly undermined the choices of firms. Qualitative analysis and critical discussion drawing on available reports and databases were applied.
Findings: Hungary and Poland have recently suffered a drop in the inflow of FDI as revealed by the statistical databases. It is, however, hard to determine whether this decline will continue and to what extent it has been dependent on recent policy changes, particularly in the light of evidence stressing unabating investment attractiveness and new projects coming.
Implications & Recommendations: The recent election results in numerous countries suggest an alteration in perceiving the necessity for further international openness and integration. The new nationalism, protectionism and economic patriotism have gained new supporters.
Contribution & Value Added: We tried to show the idiosyncrasy of the relationship between institutional election-induced changes in the political landscape and the subsequent modification of attractiveness sentiment leading presumably to changes in actual FDI flows.

INTRODUCTION

As the process of integration in Europe grew stronger, a lot of foreign direct investment (FDI) flows were directed towards the 'new EU members' which in the vast majority constituted the transition economies (Kersan-Skabic & Orlic, 2007; Popovici, 2015). The question of why those countries were targeted opened field for research which could determine a new logic in the FDI location pattern. One of the factors studied was the so-called 'institutional quality' which included, among others, political stability. Whilst economic determinants received considerable attention, political framework is still under-studied, most probably since it is harder to define and measure (Busse & Hefeker, 2005). Nevertheless, the issue of how policy changes and political risk perception influence FDI inflow is still valid and of much importance. These political aspects relate to policy as such, in particular, a policy towards foreign investors. The Oxford Dictionary (2015) defines 'policy' as a course or principle of action adopted or proposed by an organisation or an individual. It encompasses various instruments with which certain goals can be achieved. Policy can refer to conceptual aspects, such as general direction of the pursued strategy, as well as to the administrative, operational dimension including approvals, issuance, etc. Policy towards foreign investors is modelled in studies on FDI as one of the factors influencing an investor's decision on where to locate; usually as one of independent variables in regression equation assessing the magnitude of the impact of a given element on FDI (Götz, 2016). We apply both the simple quantitative method and qualitative ones based on a critical review of selected literature.

The aim of this article is firstly to determine whether the latest parliamentary elections in Poland and Hungary have changed the perception of the institutional stability of those countries. Secondly, we try to investigate whether the policy changes, or rather their perception, influenced the FDI inflow. The first part of the article is devoted to an overview of the most commonly researched FDI determinants. We observe how regional specificity influences the FDI location and whether the political changes received their due attention in previous studies of the CEE countries. Further, we examine FDI flows in Europe during and after the global economic crisis, i.e. in the 2010-2016 period. Lastly, we concentrate on Poland and Hungary specifically, not only to explore the FDI inflow but also to investigate current global reports which constitute a potential source of information for investors. We put emphasis on the period 2010-2016 since it refers to the latest parliamentary elections in Hungary (2010) and in Poland (2015) which were won by conservative parties. However, to create a broader picture, we present data on FDI inflow and two indices usually used to evaluate the competitiveness of economies in terms of their institutional environment for the period 2000-2016.

LITERATURE REVIEW AND THEORY DEVELOPMENT

Determinants of FDI Inflow in Central and Eastern European Countries

FDI is said to be one of the most desirable ways to attract foreign capital. Unlike short-term investment, FDI is not subject to sudden reversal and therefore, is more crisis-resilient (Busse & Hefeker, 2005). FDI is positively associated with employment growth, technology transfers, and therefore, indirectly with the overall economic growth (Goswami & Haider,

2014), though mixed effects can be also found in the empirical literature (Iwasaki & Tokunaga, 2014). Since the benefits of such investments are usually quite easily observable, policy-makers try to boost the quality of the socio-economic and political environment. FDI inflow is believed to be determined by the competitiveness of the host country and its regions, as well as sectors and firms. Attractiveness understood as the ability to pull foreign capital to given locations constitutes one of the dimensions of competiveness. Research on FDI determinants groups the factors into two main categories – traditional and environmental ones (Popovici, 2016). Traditional factors include market potential, labour structure and economic growth. Environmental factors focus on infrastructure and political framework. The strength of the impact of particular factors depends on the 'type' of the host country and goals of the investor. The horizontal (market-seeking) FDI is used to explore the market potential of the host country and the vertical (efficiency-seeking) FDI exploits their low-cost inputs (Alam & Shah, 2013; Shatz & Venables, 2000). Traditionally, less developed countries were said to attract more vertical investments, whilst the developed ones accommodated the horizontal FDI. Recently, however, this proves to be less true as firms seek not only to reduce their production costs but also to create market opportunities by penetrating it. Institutions play an important role in this respect (Acemoglu & Johnson, 2005; Child & Rodrigues, 2011; Jackson & Degg, 2008). Research has shown that the geographical dispersion of FDI flows is caused by different factors. Studies of the CEE countries have proved that both traditional and environmental factors are of significance in attracting FDI (Table 1). Due to the fact that those economies were not as developed as their Western counterparts, numerous studies concentrated on the labour market as major pull-factor attracting investors with low wages and relatively high productivity. With time and oversaturation of their home markets, investors turned to the CEE countries in search for a new target group. However, researchers also emphasise that in the case of those transition economies regional-specific factors should also be taken into consideration while exploring FDI determinants. They highlight potential significance of the political environment and membership in regional organisations, i.e. the EU membership. Some studies covered the role of agglomerations and clusters for attracting foreign capital to Poland (Cieślik, 2004).

Hosseini (2005) argues that any study of FDI should combine the behavioural economic perspective with historical approach. He claims that full rationality assumption should be abandoned and the complexity of investing foreign markets needs to be considered. Political uncertainty, economic instability and cultural distance hinder venturing abroad by imperfectly rational decision makers. Given the natural barriers such as the information asymmetry causing higher transaction costs, it is impossible to make perfect investment decisions as presumed by the neoclassical approach.

Surprisingly, not much attention is paid to political risk or broader, to the quality of institutions (Busse & Hefeker, 2005). It is mostly taken for granted that FDI flows are higher if the host country exhibits political stability (e.g. Brunetti & Weder, 1998; Lee & Mansfield, 1996; Wei, 2000). However, to understand fully what stands behind political stability, one should first take a closer look at institutions. North (1991, p. 97) defines institutions as 'humanly devised constraints that structure political, economic and social interactions'. The institutional environment, therefore, can be understood very broadly. It involves normative, cultural and regulatory aspects (Grosse & Trevino, 2005). The normative aspect covers the establishment and functioning of institutions as well as the

interdependencies between the actors of the system. The cultural aspect reflects the specificity of internal processes and rules which characterise a given community. Finally, the regulatory aspect involves the establishment of specific rules and legislation framework, as well as sanctions provided for the violation of those rules.

Table 1. FDI determinants in CEE studies

Group of factors	Exemplary measures	Exemplary research
Traditional factors		
Macroeconomic stability	inflation rate, GDP growth rate	Kersan-Skabic & Orlic (2007), Stawicka (2014), Chidlow, Salciuviene, & Young (2009), Gauselmann, Knell, & Stephan (2011), Cem (2013)
Labour market	labour cost, labour productivity, labour market structure	Paul, Popovici, & Calin (2014), Kersan-Skabic & Orlic (2007), Stawicka (2014), Chidlow, Salciuviene, & Young (2009), Brahim & Dupuch (2016), Gauselmann, Knell, & Stephan (2011), Cem (2013)
Environmental factors		
Infrastructure	per capita data on ICT, transportation as well as production and transmission facilities	Paul, Popovici, & Calin (2014), Kersan-Skabic & Orlic (2007), Chidlow, Salciuviene, & Young (2009)
Institutions	property rights protection, contract enforcement, number of legal changes per year	Paul, Popovici, & Calin (2014), Gauselmann, Knell, & Stephan (2011), Cem (2013)
Taxation	corporate income tax, VAT, social security contribution	Paul, Popovici, & Calin (2014), Kersan-Skabic, & Orlic (2007), Brahim & Dupuch (2016)
Region-specific factors		
Market-openness	exports and imports value, EU membership	Stawicka (2014), Brahim & Dupuch (2016), Cem (2013)

Source: own study.

Institutions are said to create the conceptual base for political change. The institutional environment is perceived as relatively stable if changes happen during a given time interval and are not radical. Institutions should ensure the fairness of any changes and safeguard the values of the society. If they fail to uphold the integrity of the system, the perceived political risk increases. Those processes might be reflected in various economic measures, including FDI inflow. If institutions do not fulfil their task of uncertainty reduction (e.g. they fail to guarantee property rights, contract enforcement, etc.) investors might turn to destinations of higher predictability (Shi, Sun, Yan & Zhu, 2017).

Evidence of such dependency was found by Jensen (2003), Harms and Ursprung (2002), and Busse (2004) who claim that investments are more likely to be located in countries of full democracy. Investors use various global reports to obtain data on institutional change. For instance, the Democracy Index created by The Economist Intelligence Unit reflects on the 'electoral process and pluralism, civil liberties, functioning of government, political participation, and political culture' (Democracy, 2017). The Index of Economic Freedom by Heritage Foundation also includes institutional elements, such as property

rights, government integrity, judicial effectiveness, government spending, tax burden, fiscal health, business, labour, monetary, trade, investment and financial freedom (Miller & Kim, 2017). The growing uncertainty in the institutional environment of economies is reflected in their ranking placement which in turn might undermine the investor's decision making process. The significance of both indices is even greater when one takes into account the growing debate on populism in the era of globalisation (Rodrik, 2017). Therefore, in the remaining part of the article we are guided by the following research question: did the recent parliamentary change in Poland and Hungary, as well as a visible turn towards new nationalism provoke an increase in institutional uncertainty? Furthermore, we investigate whether those events had impact on FDI inflow.

MATERIAL AND METHODS

In our study, we try to check if the latest parliamentary elections in Poland and Hungary have changed the perception of the institutional stability of those countries. This kind of message is often highlighted in different media. But we need facts and figures to be able to conclude about any changes and its implications. Thus, we try to investigate whether the policy changes, or rather their perception, influenced the FDI inflow.

Based on statistical data we apply a cross-country analysis to verify whether the perceived higher investment risk truly undermined the choices of firms. We draw on the available databases of UNCTAD and explore the FDI inflow in years 2000-2016 for the four Visegrad countries, Europe as such, EU 28 and world as total with emphasis on Poland and Hungary. We confront the results with the overall FDI patterns to see whether Poland and Hungary constituted an exception from the global trend or followed it.

As a background, to present current situation with democracy level in Poland and Hungary we use the *Democracy Index* – prepared by the Economist Intelligence Unit. Unfortunately, the data on Democracy Index are available from 2006 and not from 2000, and in the first years the results were presented every two years. The index is based on five detailed categories: *electoral process and pluralism*, *civil liberties, functioning of government*, *political participation* and *political culture*. Based on their scores on a range of indicators within these categories, each country is then itself classified as one of four types of regime: 'full democracy', 'flawed democracy', 'hybrid regime' and 'authoritarian regime'. Another measure which we use as a proxy of changes in the political situation in Hungary and Poland, is the *Index of Economic Freedom,* or even more connected with investors' sentiments – one of the components – *Business Freedom*. Economic freedom seems to be the centre of individual autonomy, concerned with the freedom of choice in acquiring and using economic resources. The basic assumption behind the creation of *Economic Freedom Index*[1] is that individuals know their needs and desires better than the government or technocratic elite. We present the dynamics of FDI inflow against the dynamics of the three proxies for institutional changes, in particular, political ones in Poland and Hungary. We apply a qualitative analysis and critical discussion drawing on the available reports and dossiers.

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[1] *The Index of Economic Freedom* takes 12 different factors, some of them are concerned with a country's interactions with the rest of the world, most, however, focus on policies within a country, evaluating the level of individuals' liberty to use their labour and finance without restraint or government interference.

RESULTS AND DISCUSSION

FDI Inflow – the Global and European Perspective – Figures in Brief

The eruption of the Global Financial Crisis created many challenges to firms, in particular, to those eager to expand abroad with the most ambitious and risky mode – FDI. The consequences of the financial and further economic turbulences reshaped the context for investors and impacted FDI flows in the next years. In our article, we do not intend to focus on the crisis implications for investors but rather on institutional factors which determine the smooth flow of FDI. We aim to examine the cases of Poland and Hungary, which are EU members and at the same time two out of four Visegrad countries. Thus, for the purpose of our analysis, it is worth having a closer look at the world and European context. The share of Europe in FDI inflow in the period 2000-2016 fluctuated from more than 53% (in 2005 the highest value) to around 27% (in 2014), while the V4 possessed the ratio at the level from 0.62% (in 2015) to 3.65% (Table 2).

Table 2. FDI inflow – total value in USD real prices (millions of USD) and percentage of total world

Year	Europe		EU28		V4	
	Value	%	Value	%	Value	%
2000	689 699.5	53.08	658 183.8	50.65	18 886.57	1.45
2001	338 394.5	45.31	323 028.4	43.25	16 463.92	2.20
2002	286 368.1	49.77	274 178.3	47.65	20 558.92	3.57
2003	268 093.3	49.86	236 938	44.06	10 737.37	2.00
2004	225 977.6	34.04	202 702.2	30.53	24 219.35	3.65
2005	489 742.8	53.93	460 168.9	50.67	29 669.21	3.27
2006	636 295.1	47.53	530 648.8	39.64	31 407.83	2.35
2007	922 922.3	51.00	800 917.8	44.25	37 026.14	2.05
2008	419 716.5	30.20	296 157.9	21.31	28 944.87	2.08
2009	471 958.1	40.64	384 228	33.09	14 449.28	1.24
2010	471 358.3	35.40	381 148.8	28.62	22 525.1	1.69
2011	524 356.2	35.38	417 902.8	28.20	27 157.1	1.83
2012	518 051.7	35.48	438 861.7	30.06	36 931.1	2.53
2013	383 182.1	27.43	315 089.9	22.56	9 925.7	0.71
2014	339 154.9	27.11	289 466.1	23.13	24 912.7	1.99
2015	518 129.6	29.92	435 365.6	25.14	10 680.8	0.62
2016	528 711.4	30.81	561 684.4	32.73	12 408.5	0.72

Source: authors' compilation on the basis of the UNCTAD data.

Since we aim to focus more on the period 2010-2016, we looked closer at the global FDI inflow in that period. Looking at the value of the global FDI inflow in 2010, we should mention the crisis realm since the FDI flows were at that time still at about 75% of their peak level of 2008. In that particular year, FDI inflows rose modestly after the previous two years of decline (in 2008 and 2009). They amounted to USD 1.33 trillion in 2010 and they were higher than in 2009. The visible growth was experienced particularly by developing countries. More than half of FDI flows were targeted at developing countries as well as at the transition economies. The reasons underlying such location choices were two-fold: a relatively fast recovery of these economies combined with strong pressure on cost-

effectiveness and efficient global value chains development among multinational enterprises (MNEs). In 2010 Europe was perceived as a sub-region very much shaken by the crisis turbulences, which was reflected in FDI inflow which fell most sharply. Nevertheless, the distribution of negative trends in FDI inflow was not equal throughout the whole Europe. The uncertainties about the worsening sovereign debt crisis were not very strong as far as Poland and Hungary were concerned. Already 2011 compared with 2010 brought the growth of FDI inflow by 11% (Table 2). The key absorbers of the increase were the developing and transition economies attracting a lot of greenfield investments. However, in Europe in general (where FDI inflow grew by 11%) there was a visible domination of large cross-border M&A (Table 2). As far as the European Union (the EU 28) is concerned, the growth oscillated around 10% but the Visegrad countries were characterised by the 21% growth of FDI inflow, which manifests their relatively high attractiveness for FDI compared to the other EU members (Table 2; Figure 1).
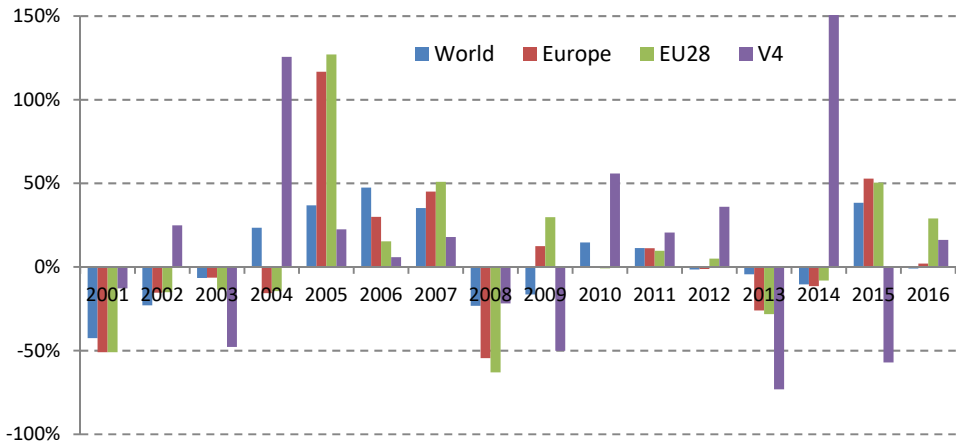

Figure 1. Dynamics of FDI inflow – percentage change (year-to-year)
Source: authors' compilation on the basis of the UNCTAD data.

The analysis of the dynamics of FDI inflows does not allow us to formulate any decisive conclusions. The percentage change measured on the year-to-year basis was negative globally in the period 2001-2003. Afterwards, the worldwide economic crisis, i.e. years 2008 and 2009, was fully reflected in the dynamics of FDI inflows. The next two years brought some improvement though only temporarily, as global FDI inflows diminished again in 2012. The value of FDI inflow in that year decreased by 1% when compared to 2011. The negative trend was visible in Europe with a similar decline of 1%. However, the whole EU 28 experienced the growth by 5% and the Visegrad countries exposed their attractiveness attracting even more foreign capital. However, decreases were observable in the next year. FDI inflow globally decreased in 2013 by 4%, whilst Europe and the EU 28 experienced a significant reduction by 26% and 28%, respectively. The position of V4 was even worse since the fall reached the level of 73%. 2014 was the continuation of the trends from 2013 as far as the world, Europe and the EU 28 are concerned (Table 2). Within each regional category there was a reduction. Surprisingly, the V4 region grew a lot when compared to 2013. The 'trend reversal' emerged in 2015 when the world, Europe and the

EU28, among others, experienced strong FDI inflow. The FDI global inflow grew by 38% and in Europe by 53%. But on the other hand, the V4 countries faced a decline by 57% when compared to the previous year (Figure 1). The year 2016 brought a decrease in FDI flows by 1% to USD 1.716 billion. According to UNCTAD, the value of cross-border M&As grew by approximately 18%, which was the highest level since 2007. In the studied period, the global share of FDI inflow in GDP oscillated between 1.44 to 4.06%. The same ratio for the EU 28 and Europe was more volatile than for the world since it reached more than 7% in 2000, decreased to the level of around 1.6 % in 2014 (Table 3).

Table 3. FDI inflow as the percentage of GDP

Year	World	EU28	Europe	Czech Republic	Hungary	Poland	Slovakia
2000	4.06	7.67	7.36	8.11	5.85	5.50	13.15
2001	2.32	3.72	3.56	8.37	7.33	2.93	10.64
2002	1.72	2.88	2.74	10.38	4.43	2.03	23.67
2003	1.44	2.04	2.10	2.12	2.51	1.83	8.77
2004	1.59	1.51	1.53	4.18	4.11	4.76	9.36
2005	2.02	3.27	3.12	8.57	6.85	2.68	6.35
2006	2.74	3.55	3.76	3.52	5.94	4.23	10.17
2007	3.29	4.64	4.68	5.53	2.84	4.62	5.22
2008	2.36	1.60	1.93	2.74	4.02	2.30	5.04
2009	1.97	2.29	2.44	1.42	1.54	2.28	-0.01
2010	2.22	2.27	2.40	2.97	1.69	2.67	1.98
2011	2.25	2.32	2.42	1.02	4.50	3.01	3.57
2012	2.15	2.59	2.53	3.87	11.33	2.48	3.20
2013	2.05	1.78	1.79	1.75	2.53	0.69	-0.62
2014	1.74	1.58	1.57	2.68	5.41	2.30	-0.33
2015	2.46	2.74	2.80	0.68	1.07	1.60	0.93

Source: authors' compilation on the basis of the UNCTAD data.

As far as the V4 countries as a group are concerned, FDI inflow expressed as the ratio of GDP varied from even -2.33% to more than 8% in particular years. However, a more detailed breakdown revealed differences among the V4 countries and in some cases showed even a negative ratio implying the withdrawal of capital (Slovakia in 2009, 2013 and 2014 – Table 3).

Although *in absolute terms* the inflow of FDI to Poland is remarkable as compared to other countries in the region, there are still areas where improvement can be made – labour costs reduction; simplification and stability of legal and tax systems; development of transport and logistics infrastructure, further upgrading of the education of skilled workers (Ślusarczyk & Kot, 2012). This is also why in terms of FDI/GDP, the results are no longer so striking.

Hungary and Poland – Political Changes Versus FDI Patterns

'Most of the Eastern member states and particularly the economies of the Visegrad countries have become dependent on foreign investment: their growth is to a great extent based on exports by foreign-owned companies' (Medve-Bálint, 2014). Since Hungary and Poland – the countries being analyzed in this article – are perceived to be democratic economies, changes in the political system – either positive or negative, can be easily observed

in the progress or regress in democracy level. The starting point should be an answer to the question: how to measure the democracy level in a country? Free and fair election and civil liberties are conditions sine qua non for democracy, but these two are not the complete picture of democracy level and they do not seem to be sufficient for a full democracy. Obviously, it should be accompanied by other important features: transparent and efficient government, high enough level of political participation, as well as democratic political culture, which should support mechanisms and institutions of democracy. Even in traditionally and long-established democratic system, one might observe the mechanism of corrosion, if the system is not protected or permanently supported.

The general parliamentary elections in Hungary and Poland in the period 2010-2016 are often seen as major shakeup for the political stability even in the region. In Hungary, in the first round of the elections in 2010, the conservative party Fidesz won the absolute majority of seats, which was enough to form a government on its own. In the second round, the candidates of Fidesz-Christian Democratic People's Party (KDNP) were able to achieve a two-thirds majority, which was required to modify the major laws, including the country's constitution. Likewise, the result of the 2014 Hungarian parliamentary election was a two-thirds majority victory for the Fidesz-KDNP Alliance, allowing Viktor Orbán to remain the Prime Minister. For the first time since the transition of Hungary's to democracy, the election had a single round (Mueller, 2014). As argued by the observers of the political scene, the April 2010 general elections did not just sweep away the ruling post-communist government but caused an earthquake on the political scene (Sardi, 2010). Whereas in Poland in 2011 general election the ruling Civic Platform won a historic victory promising further stable, favourable economic and political conditions and the pro-European course (Sardi, 2010), the 2015 elections brought major reshuffling on the political scene with the victory of Poland's opposition Law and Justice party – clearly conservative and visibly Eurosceptic (Poland, 2015).

To refer to the institutional changes in Poland and Hungary, we used the *Democracy Index* – prepared by the Economist Intelligence Unit. The value and the rank among 165 countries of democracy level for two countries – Hungary and Poland – in 2006-2016 are presented in Figure 2. Although the index provides just a snapshot of the state of democracy at the end of each year, some tendencies could be easily identified. In case of Hungary, the whole analysed period is as well the period of a negative trend in the level of democracy. Less significant drop is observed between 2006 and 2008 and, since winning with a two thirds parliamentary majority in the 2010, the centre-right party has systematically been taking over the country's independent institutions: the state audit office, the presidency, the media council and even partly the central bank.

In the case of Poland, one might divide the whole period into four shorter ones: 2006-2008 as a period of the stagnation of democracy, but on a relatively high level, 2010-2013 as a period of the stagnation of democracy on moderate level, 2013-2014 – a one year period of a significant improvement in democracy level and since 2015 we might observe a decline[2]. Since 2015 – the year of the parliamentary elections won with a significant majority by Law & Justice party – the level of democracy seems to be adversely affected by political decisions and movements of the new government and president, which are very similar to those implemented in Hungary since 2010 (higher score indicates a decline in the level of democracy).

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[2] We exclude 2009 as no data were available for that period.
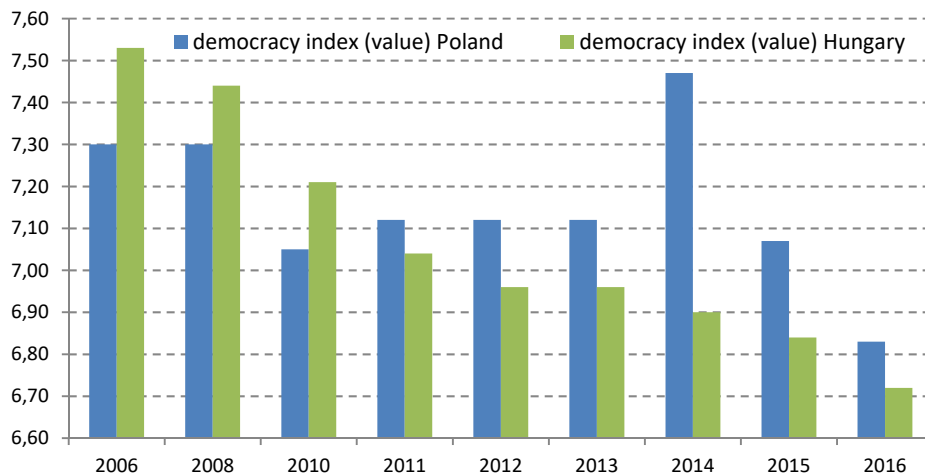
Figure 2. Democracy Index for Poland and Hungary (values, 2006-2016)
Source: authors' compilation on the basis of the Economist Intelligence Unit data.

Additionally, we used the *Index of Economic Freedom and (Figure 3) Business Freedom Index* (Figure 4) as proxies for the institutional, in particular, the political changes in both countries.

The tendencies in the level of *Economic Freedom Index* are presented in Figure 3 and Figure 4. There are substantial discrepancies between the two analysed countries regarding the starting point as well as changes over time. In 2000 Hungary recorded a higher value of index (around 65% of the max value) compared with Poland (around 63% of the max value). Looking at the tendency, it is visible that in the period 2000-2016 the index fluctuated – at first, in 2000, the tendency was negative, then since 2004 the tendency was positive for both countries. Since 2013 one might observe gradual deterioration of the index value in the case of Hungary. Similar tendencies appeared in the case of Poland two years later, in 2015.

Backsliding in the *Economic Freedom Index* value for Hungary since 2013 was accompanied by the same tendency for the *Business Freedom Index* (cf. Figure 3 and 4). Between 2000 and 2006, there was stagnation in business freedom in Hungary. In 2007 there was a slight decline and in the next years till 2013 once again stagnation but on quite a high level. Since 2014 there was a dramatic regression in the case of the Hungarian level of business freedom. Poland followed the path of stagnation in the period of 2000-2004, then in 2005 it recorded a drastic decrease and the regression is visible till 2009. Bearing in mind the significance of the period 2010-2016 for the study, it is useful to have a closer look at those years. The period 2010-2016 offers a little different picture for both countries. In 2010 Poland started from a lower level of business freedom than Hungary (61.4 for Poland compared with 76.5 for Hungary) (cf. Figure 4), then the value of index for Poland was gradually, but substantially increasing till 2013. Following the top level in 2013 (70.1), there was a minor deterioration in 2014 and 2016.
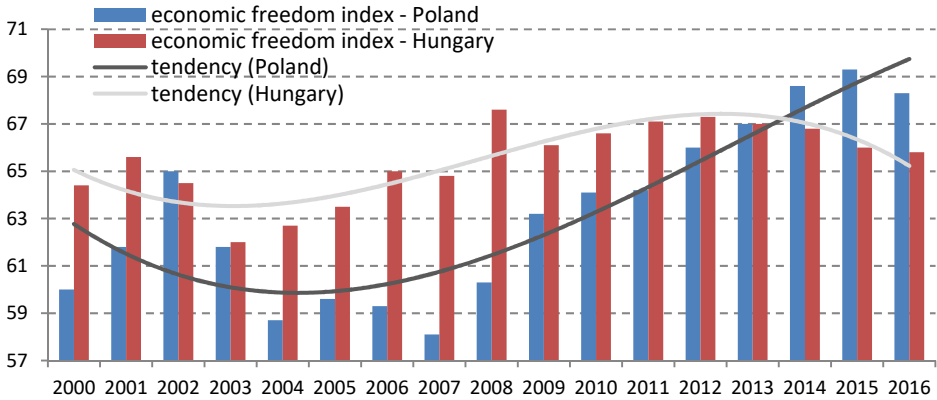
Figure 3. Economic Freedom Index value for Poland and Hungary, 2000-2016
Source: authors' compilation on the basis of the Heritage Foundation data.
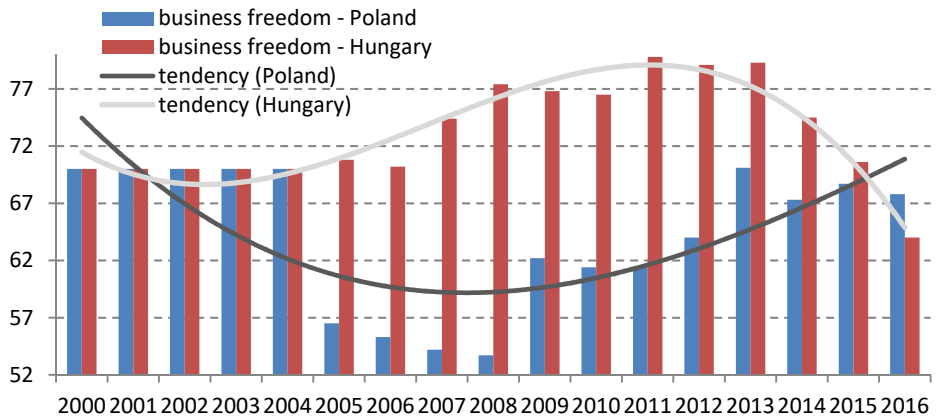

Figure 4. Business Freedom Index value for Poland and Hungary, 2000-2016
Source: authors' compilation on the basis of the Heritage Foundation data.

The two proxies of political changes in Hungary and Poland described above (i.e. *Democracy Index* and *Business Freedom Index*), were applied in the next step, in which we took an attempt to identify any relations between the political (parliamentary) changes and FDI inflow in these two countries. FDI inflow in real prices contrasted against the moments of parliamentary elections for Poland and Hungary are presented in Figure 5 and 6, respectively. In the period 2000-2016 we can indicate two moments both for Poland and Hungary when the parliamentary elections were won by conservative parties. In Poland it was 2005 and then 2015. In Hungary similar trends emerged in 2010 and 2014. We can notice that for 2005 and 2010, respectively for Poland and Hungary, the FDI inflow grew. Thus, the entry of conservative parties was accompanied by an increase in the foreign capital inflow. And for 2014 and 2015 respectively for Hungary and Poland the situation was different – conservative parties won and foreign investors decreased their engagement in both markets. It confirms that the institutional factors matter a lot and determine

attractiveness for FDI, though they should be always analysed in a broader context. Such irregularities as the one identified in our study (the index deteriorates, whereas FDI continue to flow) require a broader context-embedded interpretation of institutional settings.
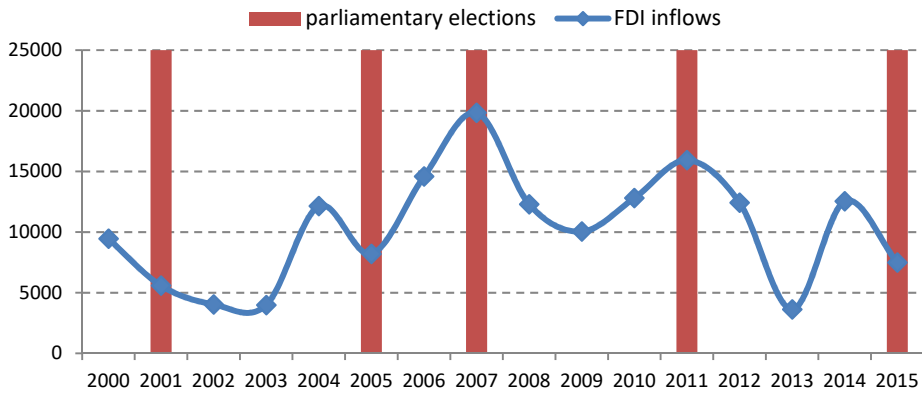

Figure 5. FDI inflow and parliamentary elections in Poland (FDI value in millions of USD, 2000-2016)
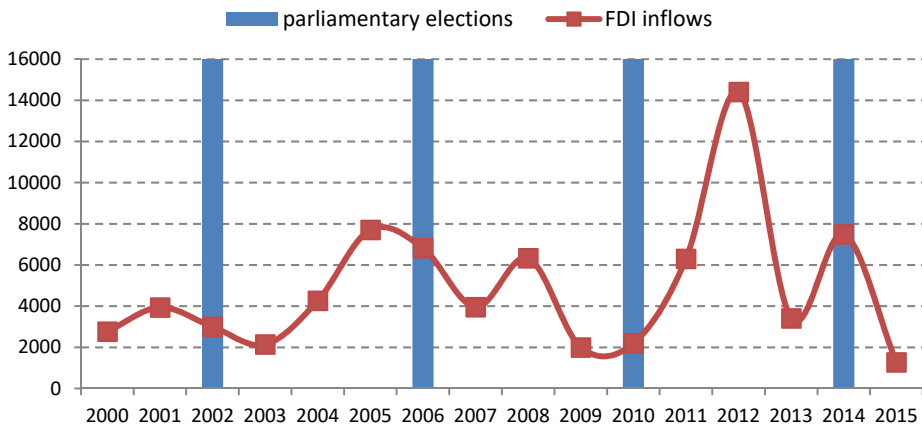Source: authors' compilation on the basis of UNCTAD data.

Figure 6. FDI inflow and parliamentary elections in Hungary (FDI value in millions of USD, 2000-2016)
Source: authors' compilation on the basis of UNCTAD data.

Bearing in mind the moments of the latest parliamentary elections in both countries, the lack of data on Democracy Index for the years before 2006, we focused a lot on the period 2010-2016, which is a relatively short period and thus we applied the qualitative methods. The results of the qualitative analysis for Hungary and Poland are presented in Tables 4 and 5. Since FDI is a forward-looking activity based on investors' expectation towards economic, political, legal, etc. conditions on a particular market, but we believe these expectations are shaped by the observation and assessment of current situation, we decided to apply a one year lag between changes in the political situation and FDI inflow

(t+1). In both cases (Hungary and Poland), in at least half of the cases there is a link between deterioration or improvement in democracy level or business freedom level and accompanying changes in the FDI inflow patterns (shaded cells in Tables 4 and 5).

Table 4. FDI patterns versus changes in the political system – the case of Hungary

Year	Democracy Index	Business Freedom Index	FDI as % of GDP		FDI value in million USD (real values)		FDI value in million USD per capita (real values)	
			t	t+1	t	t+1	t	t+1
2010	↓	→	↑		↑		↑	
2011	↓	↑	↑↑	↑	↑↑	↑	↑↑	↑
2012	↓	→	↑↑	↑↑	↑↑	↑↑	↑↑	↑↑
2013	→	↑	↓↓	↑↑	↓↓	↑↑	↓↓	↑↑
2014	↓	↓	↑↑	↓↓	↑↑	↓↓	↑↑	↓↓
2015	↓	↓	↓↓	↑↑	↓↓	↑↑	↓↓	↑↑
2016	↓	↓		↓↓		↓↓		↓↓

Notes: → no change in value; ↑ increase; ↑↑ significant increase (i.e. increase higher than 100% on year-to-year basis); ↓ decrease; ↓↓ significant decrease (i.e. decrease higher than 100% on year-to-year basis)
Source: own study.

Table 5. FDI patterns versus changes in the political system – the case of Poland

Year	Democracy Index	Business Freedom Index	FDI as % of GDP		FDI value in million USD (real values)		FDI value in million USD per capita (real values)	
			t	t+1	t	t+1	t	t+1
2010	↓	↓	↑		↑		↑	
2011	→	→	↑	↑	↑	↑	↑	↑
2012	→	↑	↓	↑	↓	↑	↓	↑
2013	→	↑	↓↓	↓	↓↓	↓	↓↓	↓
2014	↑	↓	↑↑	↓↓	↑↑	↓↓	↑↑	↓↓
2015	↓	→	↓	↑↑	↓	↑↑	↓	↑↑
2016	↓	↓		↓		↓		↓

Notes: the same as for Table 4.
Source: own study.

Obviously, on the basis of the simple qualitative analysis we cannot declare the political or parliamentary changes as an explanatory variable for FDI inflow. Thus, we treat the results presented in this article as a starting point for much deeper and more complex analysis of investors' sensitivity to parliamentary and political changes.

Recent studies by independent international organisations such as the UNCTAD Report revealed that significant changes of FDI flows might be simply explained by the corporate reconfiguration, reshuffling, revaluation, and not necessarily reflect the alteration of FDI volumes in a strict sense.

The comparison of FDI patterns in Hungary, Poland, the Visegrad Group (V4) versus the European Union 28 (Figure 7) for the period 2010-2016 shed also some light on the results of our analysis. There was a clear discrepancy in 2013-2015 between the two countries and tendencies for the whole EU. The decreasing trend of FDI flows in 2016 followed the growth in 2015. New 2017 UNCTAD Report finds that USA, Great Britain and China remain the leaders attracting most FDI. In general, the decline of the value of M&A to the tune of 18% was

accompanied by an increase in greenfield projects by 12%. Interestingly, the share of developed countries as recipients of FDI increased to unprecedented 59% (highest share since 2007). Among the largest host countries attracting a lot of foreign capital there are transition economies, such as the former Soviet Republics. In Europe, 19 out of 32 countries recorded a decrease in FDI flows, though the value of M&A increased to the highest level since 2007. The CEE countries suffered some decline in the inflow, and Poland, the largest recipient in this group, was no exception. The decline of inflow can be, however, as argued, attributed to corporate reconfigurations, to disinvestment process and deteriorating exchange rate. Examples of disinvestments in Poland and Hungary include in Hungary the purchase of MKB Bank from German BayernLB and other shares in public utility companies ad media, whereas in Poland the transactions of repolonisation, including the acquisition by Alior Bank, the shares of GE Capital and the purchase of the shares of Bank Pekao from UniCredit by PZU and PFR consortium. Even though the inflow of FDI to Poland decreased from 14.3 bln USD in 2014, to 13.5 in 2015 and 11.4 in 2016, these figures are satisfactory, given the problems of the economic situation in many traditional home countries of FDI in Western Europe. As the scale of foreign engagement by MNE originating in the EU is still below the pre-crisis level, the sluggish investments are seen among others in the CEE.
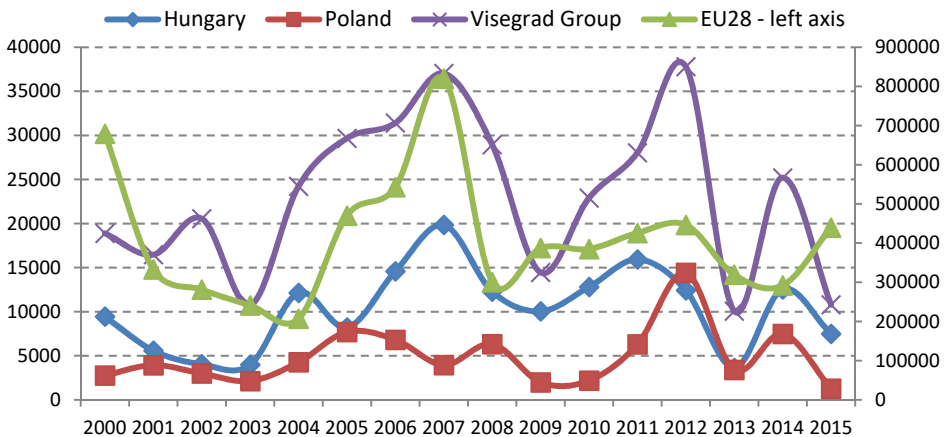

Figure 7. FDI inflow for Hungary, Poland versus V4 and EU28 (value in millions of USD, 2000-2016)
Source: authors' compilation on the basis of the UNCTAD data.

Since the transition process, the CEE countries are regarded as being heavily dependent on the inflow of foreign capital, FDI in particular. Except for Poland, the FDI stock represents more than 50% of GDP everywhere (Éltető & Antalóczy, 2017). This dependency is present both from the macroeconomic point of view (see 'dependent economy model' by Nölke & Vliegenthart, 2009), and also on the regional, local level (see 'nested dependent city regions' by Jacobs, 2017).

As noted by Éltető and Antalóczy (2017), attractiveness for foreign investors is increased in the case of a host country's predictability of regulatory and tax policies and well-functioning institutions, and deteriorates with corruption, lack of transparency leading to inefficiency in the allocation of financial resources. Findings by Éltető and Antaloczy (2017, p. 23) re-

vealed that the EU Country Report warns on legal uncertainty in Poland. The Polish tax system (including VAT, CIT, excise duties and others) underwent many rapid changes in 2016, leading to higher uncertainty undermining the stability and credibility of the Polish tax system, as amendments tend to be often introduced quickly and without broader consultations. In 2016, policy instability became the third (before it was the 10th) most important factor hampering doing business. Yet, despite these processes, the ease of doing business in Poland has been gradually improving. This may be attributed to the implementation of the new insolvency law, faster procedures for property registration, and amendments to the construction law. The government plans further to streamline certain business procedures with a range of proposals put forward within the 'Strategy for Responsible Development'.

In Hungary since 2010 international indicators point to a low and deteriorating quality of institutions, and policy uncertainty is quoted as one of the most important barriers to doing business in Hungary. As stressed by Éltető and Antaloczy (2017) for government initiated proposals, consultations tend to be limited to very short time periods, around 4.5 days in the last three years. Transition periods enabling adequate preparation for policy implementation tend to be insufficient. Additionally, public procurement consistently suffers from limited competition and Hungary's score in Transparency International corruption perception index (CPI) has continued to deteriorate over the past few years (Éltető & Antalóczy, 2017). The same study revealed that over a few last years the legal, regulatory environment in Poland poses the systemic threat to the rule of law and creates legal uncertainty, whereas in Hungary legal uncertainty, changing taxes, deteriorating institutions, corruption are problems (Éltető & Antalóczy, 2017, p. 26). Yet, in 2012 the Hungarian government introduced the system of 'strategic agreements' which has been signed with a number of foreign companies. The aim was to encourage the activity of only selected, preferred multinational firms with the declaration of partnership. Up till May 2017, the number of signed strategic agreements was 74, out of which 65 partners were foreign-owned companies. The partners are concentrated mainly in electronics, automotive and pharmaceutical industries. The agreements were initiated mostly by the government and their content was rather uniform, stating the intention of general cooperation in job creation, training and education, R&D, local supplier network development. According to Transparency International Hungary (2014), foreign firms hoped that this new agreement would ease communication with the Hungarian government, despite its often unfriendly rhetoric. Hence, as argued by some experts, it is not that FDI overall is not welcome any more in Hungary. It is mainly the horizontal type which is discriminated against.

Paradoxes and Limitations

Bearing in mind the role of the state in internal and international affairs, we ventured to pre-examine the dependencies between public policies and FDI inflow. Unfortunately, no decisive conclusions can be drawn, most probably due to two reasons. Firstly, the timeline of the analysis is insufficient – the time elapsed between the electoral change and today is yet too short to indisputably draw a link between the two phenomena. Secondly, if the dependency is to be seen, it will probably happen with a time-lag and so it will only further push for a more extensive dataset. Therefore, a visible limitation to our study is the insurmountable barrier of time. However, with this in mind, we would like our study to serve as a starting point for future discussion.

Of course, to assess accurately the role of policy as a factor influencing foreign investor decision, more robust econometric analysis would be required. Yet, based on this kind of reports, one may suppose that the newly elected, apparently conservative and FDI unfriendly governments in Poland and Hungary have not shaken the inflow of foreign capital as presumed. The explanations can vary. One is the corporate long term strategy and inertia of this kind of process, another is the relative perception of investment conditions, though perhaps worse than it used to be, but business environment in these two countries is probably still much better than in unstable Russia, inward-looking USA or unpredictable Great Britain outside the EU.

The necessity of discussion is even stronger bearing in mind the recent business media and reports by consultancy firms released in 2017. The not overly optimistic picture arising from the UNCTAD Report may be contrasted with E&Y Report (Szadkowski, 2017) which claims that Poland remains the fifth best location for foreign capital and the value of transaction in 2016 increased by 74%. Not only has the number of projects and the value of invested money increased recently, but investors, when asked about their opinion, are reported to expect an improvement in Poland's attractiveness. The figures are optimistic and seem to deny the popular opinion of a negative effect of the unfriendly policy of the new government, deterring the investor. The interpretation here is the following – it is not the policy as such but rather the intrinsic features of long term investing that explain the inertia of FDI inflow. The commitment of assets and resources, corporate strategy and a long-time perspective make investors not abandon their plans once the government changes in a host country. Such rhetoric seems to stress and attach more importance to real conditions, hard data than political consideration, party manifestos or other ideological declarations. Another approach broadens the perspective and sees the Polish and Hungarian complications and seemingly the departure from neoliberal mindset against the background of much deeper, profound and radical processes taking place worldwide, such as the victory and presidency of conservative Donald Trump, Brexit and the return of protectionism across advanced economies.

CONCLUSIONS

There are common fears that the Global Financial Crisis brought back the economic patriotism or even protectionism. Financial turbulences, trade imbalances, instability of fiscal policies and problems on labour market have justified intervention of the state. Various measures have been launched and policies altered. The concern of protectionism has been directed also towards the CEE as right-wing parties have come to prevail in Hungary and Poland, seemingly posing a serious challenge to neo-liberal regime. The change of government and reorientation of general policy does not have to imply the simultaneous change of a particular type of policy, namely the one pursued towards FDI. It should be mentioned that the government changes in these two countries were not due to crisis-induced, unpopular austerity measures forcing many European governments to step down. In the case of Poland and Hungary the new governments come from regular election. Regardless of the origins, scholars and experts point to the risks attached to these new inward-looking policies. The change may unintentionally answer the question of too lax and too liberal previously pursued policies of inviting foreign investors. We should remember that the observed tendencies might result also from other developments and reflect changes of other than

policy factors. One more aspect we should bear in mind are investors who might perceive, contrary to the majority and the common wisdom, the more unstable and volatile environment and political instability as an advantage enabling reaping extra benefits. Hence, we cannot exclude the situation when the unpredicted, apparently less friendly environment is perceived by some groups of foreign investors as an actual advantage, opportunity to extract extra profits, to outdo competition, do a pre-emptive strike.

Following the financial turbulence of 2008 and the economic crisis which ensued, adjustments have been made in major fiscal and monetary policies. Relatively little appears to be known about possible modifications to policies in other secondary areas of governmental activity, such as foreign direct investment. Not only thanks to the convenient macroeconomic conditions, but also due to the pursued policies, have the CEE countries hosted a large number of affiliates of multinational enterprises (MNEs). The transition processes towards full market economies, further economic development and the EU membership have created an evolving context for pursuing the FDI policies. The Great Recession and emerging 'departure from neoliberalism' or the feared 'return to protectionism' might suggest certain reorientation in the approach towards FDI adopted by the CEE countries. The proportion between a country's outward and inward FDI is intrinsically related to the country's economic development as laid out by Dunning's Investment Development Path, nevertheless, it depends also on the policy being pursued (Götz, 2016). Such policy usually changes over time from aiming at the reduction of market failures towards promoting better integration between domestic and foreign firms and stimulating home companies to venture abroad (Fonseca, Mendonca, & Passos, 2007). An important finding is that during the recent crisis, there was a tendency towards less integration, which manifested itself in the resurgence of domestic rather than foreign sourcing.

Public intervention in market economy comes in many forms. The state is far more than a rule setter. Governments can act as goal-oriented strategists, through public policies and mechanisms ranging from firm ownership to more indirect intervention designed to promote internationalisation (Colli, Mariotti, & Piscitello, 2014). The outcome of the interaction hinges on the country's form of capitalism – rooted in historical and cultural behavioural models and subject to path-dependent institutional changes. Even seemingly similar economies such as the V4 countries differ in the character of change and the role of key actors.

The CEE countries with Hungary and Poland being notable examples have been building their development model of attracting foreign capital for a long time. This high dependence combined with deteriorating business conditions, more nationalistic policy and the overall worse global sentiment make governments of these countries resort to other, more selective targeted measures to attract foreign capital. Applying them somehow contradictory to the general line of policy making in these states can paradoxically help improve the policymakers' image and in case of successful investment be used as a success story. Hence, the government can be credited with winning an important investor. Nevertheless, cases of the reorientation of the policy towards incoming FDI (reversing or slowing privatisation processes or seeking alternative sources of growth) can be found in recent literature (Szanyi, 2016).

As revealed by Éltető and Antalóczy (2017), legal stability has shaken in Hungary and Poland, yet these countries still compete for large investments, by making grants for foreign firms (narrow incentives) of growing importance. However, this can be true in the

short run, but cannot endlessly compensate for the mentioned worsening business climate, that is promotion in a broad sense (Éltető & Antalóczy, 2017). The clash between perceived deteriorating friendliness of Poland and Hungary towards foreign capital due to more conservative policy reorientation and yet good FDI performance might be also explained by the peculiarities of investment processes. The decision is usually a two-stage or even multi-stage process and targeted promotional efforts will be meaningless for attracting FDI if macroeconomic fundamentals are flawed (Éltető & Antaloczy, 2017). Hard data and facts are crucial for investors to decide about location of their investment but.

Thus, bearing in mind the ambiguity of the situation and having conducted a qualitative not a quantitative analysis, we attempt to propose a hypothesis for further research. We argue that *in the long term, the perception of democracy and freedom in the post-transition CEE economy, traditionally highly dependent on FDI, influences the FDI inflow to the country, but the analysis of the role of institutional and political changes need to be context-embedded*. With the snapshot of the current economic and political situation, we feel that there is enough evidence to investigate this matter with quantitative means, once enough time has passed. Some contradictory tendencies as revealed by our qualitative study and the quoted reports may be explained and interpreted by taking a broader perspective and accounting for the peculiarities of foreign investment and the CEE countries dependency on FDI. We would see our study as making the case for more subtle analysis of the institutional dimension of a country's attractiveness for FDI. Our findings seem to highlight the necessity of including a more nuanced and broader context-embedded analysis of the role of institutional changes on FDI flows. It also stresses that the actual change on the political scene and even the resulting possible shifts in the perceived transparency or quality of institutions do not have to translate into actual changes in the inflow of foreign investments. In this article, we have tried to show the idiosyncrasy of the relationship – institutional election-induced changes in the political landscape and the subsequent modification of attractiveness sentiment leading presumably to changes in the actual FDI flows. We argue that there is a need for more nuanced analysis of such linkages, as they prove to play an important role, though very much context-embedded and subject to broader settings.

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Changes in the Market of Two and Three-wheeled Motor Vehicles in Europe at the Beginning of the 21st Century

Sławomir Dorocki

A B S T R A C T

Objective: In recent years, the number of motorcycles in many countries has changed significantly. A particularly diverse situation has taken place in Europe. This diversification has been influenced by both economic and institutional conditions. The study aims to identify the main trends on the Powered Two or Three-Wheelers (PTW) market in the world. The study analyses the distribution of PTW in the world and tracks the changes in the PTW market in particular European countries between 2001 and 2014.

Research Design & Methods: The article is based on the statistical data from the Eurostat and The ACEM. The analysis of the PTW market changes in Europe is based on graphical presentations and simple statistical methods. Due to the availability of data, the analysis refers to chosen European countries (UE+EFTA in 2014). As a result of the lack of availability of comparable data in the article, the data were presented according to the latest available summaries.

Findings: In most countries, the PTW market has been affected by the financial crisis which has influenced the rise of motorcycles in the countries such as Greece and Spain, while the UK has suffered a decline. Economic factors have also been influenced by the factors such as legislative changes, the ageing of population, and the processes of urbanisation and increasing professional activity in developing countries.

Implications & Recommendations: It is necessary to analyse changes in the market of PTW by size of a city, traffic intensity and the level of development of public transport.

Contribution & Value Added: The study complements the topic of PTWs' role in the transportation across Europe (with East Europe) and the changes which have taken place in this vehicle market since the beginning of the 21st century. Additionally, this is a holistic approach combining technical, economic and sociological issues.

Article type:	research paper
Keywords:	Europe; market; motorcycles; PTW
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INTRODUCTION

Changes in the market of two- and three-wheeled motor vehicles (Powered Two or Three Wheelers – PTW) have various forms and intensities in different parts of the world. The PTW market is influenced mainly by social, economic and demographic changes. The differences in the PTW market changes are visible particularly between developed and developing countries. These differences relate not only to the size of the market itself but above all to the functions these vehicles are used for. Another important criterion distinguishing the PTW market is the tradition and culture of road transport, including the modern attitudes of society referring to environmental protection and the need for greater mobility associated with the increase in the professional activity of women. Another significant factor affecting the development of the two wheeler sector is technological progress influencing new developments in the automotive and road infrastructure industries. The article presents changes in the PTW market in Europe in 2001-2014. The PTW market was mostly affected by the economic crisis, legal conditions and changes in the age and occupational structure of society.

The first part of the article presents global conditions and the structure of the PTW market. Both the dynamics of market changes and the impact of main factors on the number of PTW in different regions of the world were analysed. The next part focuses on the area of Europe. The characteristic of the PTW market was compared among different countries, and then the changes in the number of PTW in Europe and individual countries in the years 2001-2014 were analysed. On the basis of the size and dynamics of the changes in the number of PTW in relation to the population, the typology of European countries was made. Finally, an attempt was made to compile the size of selected socio-economic indicators with the dynamics of changes in the PTW market.

MATERIAL AND METHODS

The article is based on the statistical data from the Eurostat and The European Association of Motorcycle Manufacturers (ACEM) for chosen European countries in the years 2001-2014. Therefore, EU countries (2014) and EFTA countries (2014) have been analysed. Unfortunately, as a result of the lack of availability of comparable data (resulting, among others, from legal differences in individual countries) in the article, the data were presented according to the latest available summaries. The analysis of PTW market changes in Europe is based on graphical presentations and simple statistical methods (mean, proportion, linear dependence).

The study includes Powered Two or Three Wheelers (PTW) which include both moped and motorcycles and scooters (capacity below 50cc), motorcycles and scooters (above 50cc) and a 3-wheel scooter. The analysis does not consider the type of drive, whether it is an internal combustion or an electric one.

LITERATURE REVIEW

So far in the literature of the topic of PTW function changes have been analysed only in the national perspective (Albalate & Fernández-Villadangos, 2010; Lai, Lu, & Chiang, 2006; Lam & Tam, 2002; Marquet & Miralles-Guasch, 2016; Riley, 2002; Yamamoto, 2009). In addition, the articles from Europe have been limited to the case study of one Western

European city and a short period of time. The following study complements the topic of PTWs role in transportation across Europe and the changes which have taken place in this vehicle market since the beginning of the 21st century. Additionally, this is a holistic approach combining technical and sociological issues. The first part of the article presents the theory of changes in the PTW market in the world. The next part of the article shows the detailed changes which have taken place in individual European countries. Unfortunately, the literature on the PTE market in Eastern Europe (post-communist Europe) is very poor. The subject of motorcycles appears only in the aspect of the automotive industry (Komór & Godlewska-Majkowska, 2013; Molnár, 2012) or descriptions of consumer behaviour (Okrzesik, 1999, 2001, 2002; Zawadka, 2015). The following work is therefore the first attempt to analyse the PTW market both in Western and Eastern Europe.

Global PTW Market Conditions

At the beginning of the 21st century, an increase in the number of two-wheeled motor vehicles was observed in most European countries. In spite of the fact that two-wheeled mobility has a long tradition in many Western European countries, including mainly the south of the continent (Nishitateno & Burke, 2014), there has been a noticeable increase in the number of two-wheelers in developing countries of Central and Eastern Europe (Paviotti & Vogiatzis, 2012; Marquet & Miralles-Guasch, 2016). The increase in the number of two-wheeled and three-wheeled motor vehicles (PTW) in Europe is mainly related to socio-economic conditions (De Jong *et al.*, 2004) and legal issues. The main factors influencing the popularity of PTW are an increase in urbanisation and transport problems (Ballart & Riba, 1995; Broughton *et al.*, 2009; Albalate & Fernández-Villadangos, 2010; Kopp, 2011; Pinch & Reimer, 2012; Karathodorou, Graham, & Noland, 2010; Ng, Schipper, & Chen, 2010), and urban density-related increase in population density which raises the cost of car use (Yamamoto, 2009; Lam & Tam, 2002; Clark, 2007, 2009; Khan & Willumsen, 1986; Hess & Ong, 2002; Riley, 2002; Haworth, 2012). The increase in urbanisation and population density also affects the efficiency of public transport (Dargay & Gately, 1999; De Jong & Van de Riet, 2008; Schwanen, Dijst, & Dieleman, 2004), which affects the decision of resigning from cars in cities. However, it should be emphasised that many European societies possess and use individual means of transport, unlike public transport which determines the psychosocial benefits (self-control, self-esteem and the sense of independence and prestige) (Ellawaya, Macintyrea, Hiscockb, & Kearnsc, 2003). Therefore, having a more economical motorbike is an alternative which in many cases provides more psychosocial benefits than owning a car. Urban development and suburbanisation processes have also influenced an increase in commuting time which contributed to the PTW role in suburban communication (Pucher, Korattyswaropam, Mittal, & Ittyerah, 2005; Banister, 2011; Sanko *et al.,* 2009). Another factor influencing the PTW market is the growing prosperity of a society (Lai *et al.*, 2006; Yamamoto, 2009; Chiou, Wen, Tsai, & Wang, 2009; Pongthanaisawan & Sorapipatana, 2010) which, depending on the level of social development and car saturation, may influence an increase or decrease in the number of two-wheeled vehicles (Law, Hamid, & Goh, 2015). The impact of the global financial crisis on the PTW market has also confirmed the importance of the financial sector in this branch of economy. Legal conditions also affect the use of PTW vehicles. This is noticeable when changing the criteria to drive the vehicles up to 125cc (equivalent to licenses B and A1) (Perez, Borrell, & Nebot, 2009). An important factor seems to be the policy of national and local government authorities to limit the movement of motor vehicles and adapt the road infrastructure for the needs of two wheelers

(Muzira, Chesheva, Banjo, & Marquez, 2009; Albalate & Fernandez-Villadangos, 2010; Pinch & Reimer, 2012). Top-down policy is also seen in terms of limiting traffic due to the reduction of pollutant emissions (Uherek, 2010; Mashayekh *et al.*, 2012). Introducing new technological solutions for small engines (including carburettor replacement) and greater fluidity of PTW driving reduce emissions of exhaust fumes by about 20% in comparison with cars (Muslim, Selamat, Alimin, Rohi, & Hushim, 2014; Uberti, Copeta, Baronio, & Motyl, 2017). Operating costs are another important element. Increasing fuel prices and top-down taxes and tolls can significantly reduce the use of cars for PTW.

Another issue is an increase in the professional activity of women (Rogers, 2008). Also, the process of increasing the age of newlyweds and primiparas in many European countries (Buchmann & Kriesi, 2011) affects the reduction in demand for 'family means of transport'. At the same time, technological development allows us to look for new construction solutions which increase the popularity of PTW vehicles by increasing their safety, economy and driving comfort. Last but not least important elements influencing the diversification of the PTW market are natural conditions determining the possibility of year-round comfort of two wheelers. However, for cities where road infrastructure allows year-round traffic, even in areas with heavy snow and low air temperatures, two wheelers can be year-round. An additional factor influencing the seasonal decline of the PTW traffic in urban areas is technological advancement to improve the comfort of two-wheeled driving in winter (e.g. winter tires, heated seats, handles and clothes, warm air) (Figure 1).
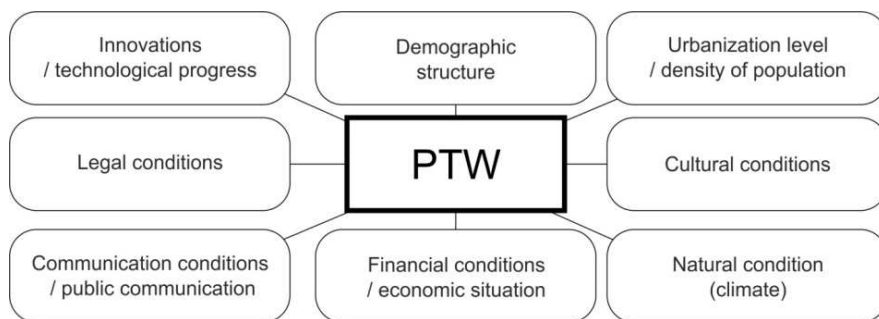

Figure 1. Conditions of PTW development
Source: own elaboration.

Tracking the changes in the use of two wheelers, one can distinguish four phases of their use (Figure 2). The first phase (A) is where the lack of availability of a car (financial or technological constraints) affects the use of PTW as the main means of transport. This situation occurs in developing countries in Asia and Africa. The second phase (B), related to the general availability of cars, is conditioned by the development of industry and an increase in the wealth of society. Two wheelers are mainly used in areas with poor road infrastructure (e.g. Australian agricultural areas). They are also used by poor social groups in areas with insufficient public transport (e.g. rural areas of Poland). In addition, motorcycles of smaller-capacity are used by young people (legal and financial reasons). Driving a motorcycle is also a form of entertainment. With an increase in prosperity and socio-economic progress of developed countries, the urbanisation process increased, changing the proportion of urban and rural population. Nowadays, in developed countries (e.g. Western Europe)

there has been a marked increase in the share of inhabitants of the largest agglomerations, with only about 25% of the population living in rural areas. For the people in cities, PTW have become an alternative to a car (phase C). As a fast and cheap (and ecological) means of transport, it responds to the current problems of urban transport and the rise in fuel prices. Two wheelers more than cars fit in with the idea of 3F (Fun, Freedom, Fashion). They are seen both as practical and carrying 'joy and style' vehicles.

It seems that further development of cities with an increase in public transport and the limitation of car traffic leads to the evolution of two wheelers towards motorcars (phase D). The new hybrids of cars and scooters will be a part of the policy of road traffic flow and environmental protection. Therefore, in addition to improving the conditions of use (e.g. three wheeled vehicles, equipped with a roof, etc.) they will be equipped with a hybrid or electric drive. So the history of using PTW will go round to the point where PTW vehicles are more popular than cars. It should be noted that the above-mentioned phases largely depend on the legal conditions and communication culture prevalent in different regions of the world.
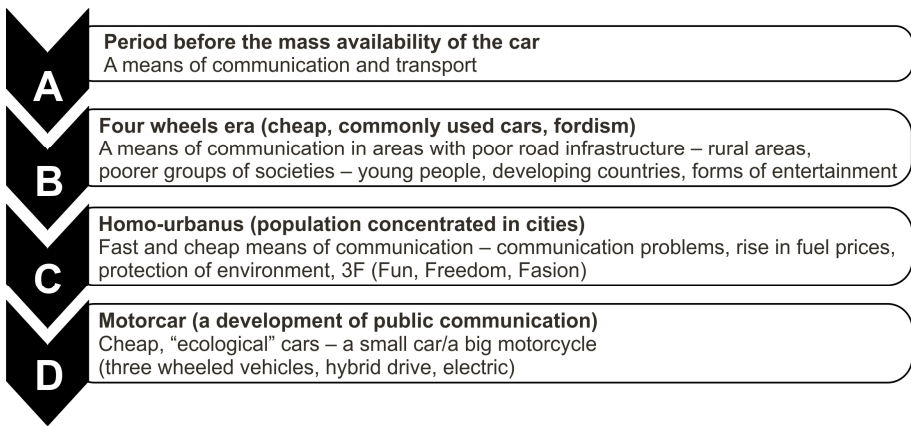

Figure 2. Periods of use of PWT
Source: own elaboration.

Today, the main factors influencing the change in the interest in PTW vehicles are an increase in transportation problems in developed countries and the professional activation of women in developing countries, which is associated with the socio-economic progress of these countries. In 2016, the Americans spent an average of 42 hours in traffic jams, consuming 11.7 billion litres of fuel. It cost about 160 billion dollars. This process can also be seen in the countries with lower levels of economic development. In Poland in 2016, the annual cost of traffic jams per driver increased on average to 70% of the monthly salary (64% in 2014): and the average monthly time spent in traffic jams in major cities per driver was nearly 15 hours. The situation is caused mainly by economic development and the growth of the professional activity of society.

According to the Department of Labor, the Texas Transportation Institute, there is a close relationship between the number of actively working professionals and the travel time (Travel Time Index). Analysing the number of PWT registrations by type in India in 2006-2011, there was a noticeable increase in scooter registration (with

a smaller increase in motorbike and motorcycle registration). This is the result of the progressive professional activation of women.

As shown by Law *et al.* (2015), the number of motorcycles is linked to the level of economy. Analysing the relationship between GDP and the number of cars and motorcycles, it was shown that once GDP in developing countries went up, the share of cars increased (with a large number of PTW). On the other hand, in developed countries an increase in the level of economic growth has an impact on the share of motorcycles (with a large number of cars). This was due to both: the growth of the wealth of a society (a motorbike as a symbol of luxury) and urbanisation. This relationship is confirmed by statistical data (Worldmapper). The countries with the highest number of motorcycles in terms of population in 2002 were the Asian countries (Malaysia 4.20, Thailand 5.76, Cambodia 7.46, Japan 9.41) and Europe (Greece 4.55, Italy 8.03, Switzerland 9.86). Taking into account the share of motorcycles in relation to the number of cars, South East Asia, Indonesia and Central Africa dominate. Over 90% of motorcycles out of all the vehicles are used in such countries as: Armenia, Central African Republic, Tajikistan, Nepal, Afghanistan, Somalia and Papua New Guinea. In Europe this share was below 20% (only in Greece 46% and in eastern countries like Belarus and Lithuania about 25%) (Figure 3).
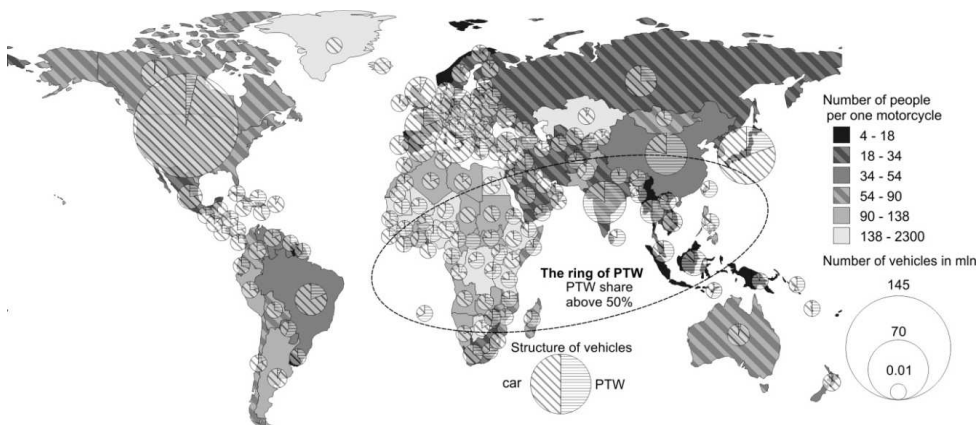

Figure 3. Distribution of motorcycles in the world in 2002
Source: own compilation based on Worldmapper.

It is estimated that in 2015, 313 million motorcycles were used all over the world. However, on the global scale, there was a great diversity of them. The highest number of motorcycles was used in Asia and Australia (77% in 2009): and what is more, over 80% of households had PTW. The next continent was Europe (14% of motorcycles). In South America there were 5% and in Africa and North America 2% of motorcycles. Small motorbikes and scooters were dominant in developing countries, while larger motorcycles were used in developed countries. This regional specificity resulted from economic determinants, infrastructure and cultural factors. One example is Australia, which owes its infrastructure to the world-class sales of Moto Cross motorcycles (50% of sales). Similarly, large motorcycles for recreation and tourism dominate in the United States. However, there are

global changes in the two wheeler market. The number of PTW in cities and their production is increasing in Asian countries: China, India, Indonesia, Japan, Taiwan, Thailand, Vietnam and Malaysia. This production, which so far has been allocated to the domestic market, has currently users all over the world (Figure 4).
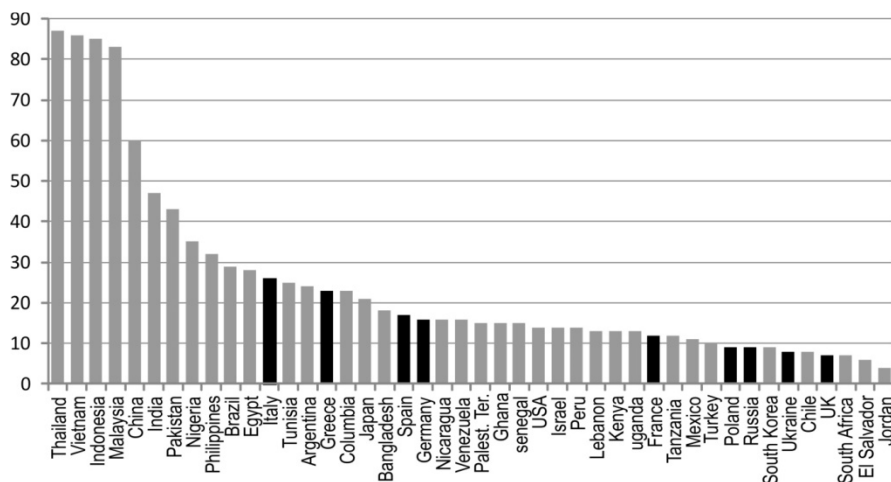

Figure 4. Share of households holding PTW in 2015
Source: own compilation based on Pew Research Center – Pew Global Attitudes Project.pdf.

At the beginning of the 21st century there were significant changes in the structure of vehicles in the world. In the years 2001-2010 there was an increase in the number of motorcycles in relation to the number of cars in developed countries, such as the US and Sweden. However, in poorer countries like Greece and The Czech Republic this growth was higher than an increase in the number of cars, and remained close to it (Table 1). Out of all the analysed countries, an increase in the number of mopeds occurred only in the case of Sweden and Spain. In Sweden motorised vehicles are available for driving at speeds up to 30 km/h, they do not require registration and tolls and they use cycle paths. An increase in the number of these vehicles is associated with the urbanisation process. In the case of Spain, in 2008, the crisis changed the habits of transport of the inhabitants. In Barcelona the inhabitants are using cars less and less and the number of people travelling by bike or on foot has increased by 40%. In the case of motorcycles, an increase of nearly 18.6% was recorded, especially for scooters (Marquet & Miralles-Guasch, 2016). Also the number of women using scooters and motorcycles increased. The greatest growth of motor owners occurred in the years 2004-2008. During that period, the number of women using motorcycles increased by 43.6%. It can therefore be claimed that the current situation in the two wheelers market is mostly influenced by economic conditions. However, the level of satisfaction of two wheelers users is also taken into consideration. Regardless of a country, it is usually higher than in the case of car users.

PTW Market in Europe

In Europe, the PTW market is very diverse. This is due to both economic and legal conditions, but also to climate diversification. An additional factor is the history of the continent, which for over 40 years functioned in two different economic and political systems. According to ACEM data, in Europe in 2016 about 1.206.000 motorcycles were used and their number grew rapidly. The popularity of two wheelers in Europe was mainly due to the growing demand for urban mobility and the prosperity of Eastern European citizens. However, due to the growing transportation problems in European cities, PTWs seem to be perceived as the future of transport. This is caused by the fact that in comparison to cars two wheelers are characterised by low operating costs, lower exhaust fumes emission (about 20%) and fewer parking problems. Moreover, it is assumed that the growth of 10% of two wheelers users increases the flow of traffic and decreases the time spent in traffic jams by 63%. The research conducted in European agglomerations has shown that a car travelling 30 kilometres needs on average 88 minutes and another 16 minutes to find a parking space, while a motorcycle needs only 44 minutes (ACME Industry Report, 2015). In recent years, there have also been changes in the structure of the users of two-wheelers. Apart from an increase in the share of women, the average age of motorcyclists also changed: from 27 years in 1985 to 41 years in 2003. The age group of over 40s increased from 28% to 48%. It is related to the ageing process in Europe, but also to the attractiveness of PTW among the older generation. Social transformations, i.e. an increase in the number of single people, high need for mobility, an increase in the professional activity of women and rising traffic problems in cities affect the number of PTWs in Europe.

Table 1. Changing number of vehicles between 2001 and 2010 in selected OECD countries

Country	Passenger cars	Mopeds (<50cc)	Motorcycles	PTW growth relative to car growth (car growth = 100%)
USA (excl. SUV)	5%	—	67%	1340.00
Sweden	8%	84%	91%	1137.50
France	11%	−22%	48%	436.36
Spain	22%	27%	82%	372.73
Australia	25%	—	88%	352.00
UK	13%	−27%	28%	215.38
Greece	52%	−14%	76%	146.15
Japan	11%	−20%	14%	127.27
Czech Rep.	29%	1%	35%	120.69

Source: own compilation based on (Van Elslande *et al.*, 2014).

On the other hand, the accident rate and climatic conditions remain the factors which inhibit the development of two-wheelers. However, the research conducted in Western Europe shows that 40% of PTW accidents are caused by poor infrastructure (mostly bad roads) and another 33% of accidents happening at crossroads and caused by car drivers ('The Safe Ride to the Future', 2014). Regardless of the factors affecting the accident rate of PTW, 27% are fatal (compared to less than 10% for car passengers). However, it should be noted that 125cc motorcycles have the highest fatality rate, while in the case of lower capacity vehicles

the accident rate is about 7% and they are statistically safer than bikes (mainly due to better helmet protection – helmet and clothes). As technology advances, the safety of PTW users improves. Even small vehicles are equipped with ABS, and drivers can count on better protection, such as air vests for motorcyclists. Therefore, considering that 87.9% of all the accidents are determined by a human factor (the drivers' skills): many countries promoting PTW transport introduce special training. Get On, Bike Safe or Scooter Safe Projects can be good examples. PTW currently accounts for about 30% of vehicles in European cities, but the transport policy of large agglomerations is aimed at limiting the traffic of cars which in turn can affect the popularity of two wheelers. In many cities, top-down decisions are made to promote the PTW traffic, for example: lockers in front of intersections for motorcycles, parking spaces for two wheelers or the access to bus lanes, exemption from parking fees and entry to paid zones. The growth of the popularity of motorcycles in society also influences the development of many branches of economy. One example is motorbike tourism which generated 600 million EUR profit in the UK in 2016 and created 13.200 workplaces.

Analysing the changes in the PTW market in Europe (EU+EFTA), the research shows the changes in the structure and the number of motorcycle registrations in 2001-2014. Both in the mopeds (<50cc) and motorcycles (>50cc) market: there was a marked decrease in the number of registrations during the economic crisis, after a period of high growth since 2004. During the crisis, the PTW market decreased by 54.9%, which was mostly visible in terms of population. However, the PTW market reacted differently to the crisis in different European countries. Taking into account the number of PTW registrations in relation to the number of car registrations, it is significant to note that the countries where the crisis was most noticeable (e.g. Greece, Spain) the number of PTW registration increased. A two wheeler as a cheaper means of transport in favourable climatic conditions was more often chosen than a more expensive car. Analysing the number of PTW registrations per 1.000 people, it can be seen that in rich countries (e.g. Switzerland, Luxembourg) the number of registrations did not decline during the crisis period. Another factor affecting the number of registrations are legal and financial conditions (taxes, fees). There has been a significant increase in the registrations of 50cc motorcycles in Slovakia since 2012. This resulted from a change in the law which allowed motorcyclists to drive up to 125cc motorcycles with a driving licence category B. On the other hand, in Denmark since 2007 there has been a marked decline in PTW registrations with a capacity of over 50cc. This was caused not only by the crisis, but also by the government policy which raised the fees for high-capacity vehicles (Figure 5).

The impact of the crisis can also be seen by analysing a change in the number of two wheelers in Europe. During the crisis there was a noticeable increase in their number, which lasted until 2011. The structure of PTW also changed. In the period 2001-2014, with the exception of a small growth at the beginning of the crisis, the number of motorbikes fell (<50cc). It was mainly related to a process of society ageing (Figure 6).

Analysing the deployment of PTW in Europe in 2014, it can be seen that these vehicles were concentrated in three countries: Italy (8.5m): Germany (5.9m) and Spain (5m). However, taking into consideration their number per 100 people, the leaders were: Greece (16.5), Italy (14.0), and Spain (10.8). The high rate of PTW was also found in the countries with high urbanisation, e.g. Lichtenstein (11.5), but also Benelux, Germany, the Czech Republic and the Alpine countries. Finland had a high share of PTW in terms of population (10.4) (Figure 7). However, in this case they were mainly mopeds (54.8%). In Finland, mopeds are a traditional means of

transport for people who are too young or too old to be able to drive a car. It is precisely the ageing process of a society and compulsory medical examination at the age of 70 for drivers (Karthaus & Falkenstein, 2016) which reduce the number of cars and motorcycles for mopeds. In addition, the government policy is to limit the movement of cars in cities. One example is Helsinki, which by 2025 plans to eliminate private cars from the city.
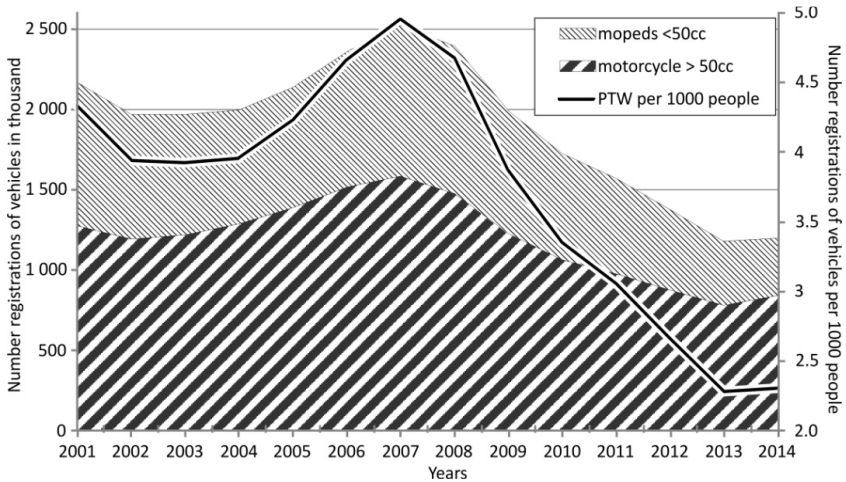

Figure 5. PTW registration in Europe between 2001 and 2014
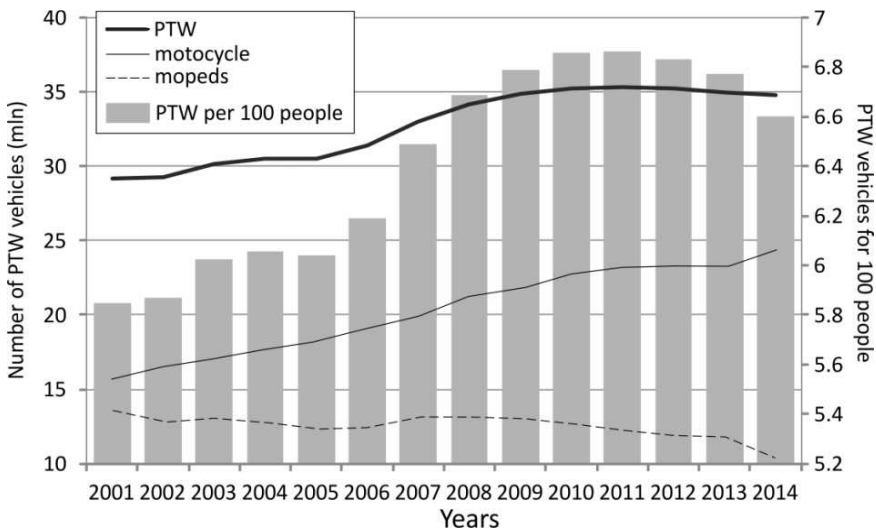Source: own compilation based on Eurostat and ACEM data.

Figure 6. Changes in the number of PTW in Europe in the years 2001-2014
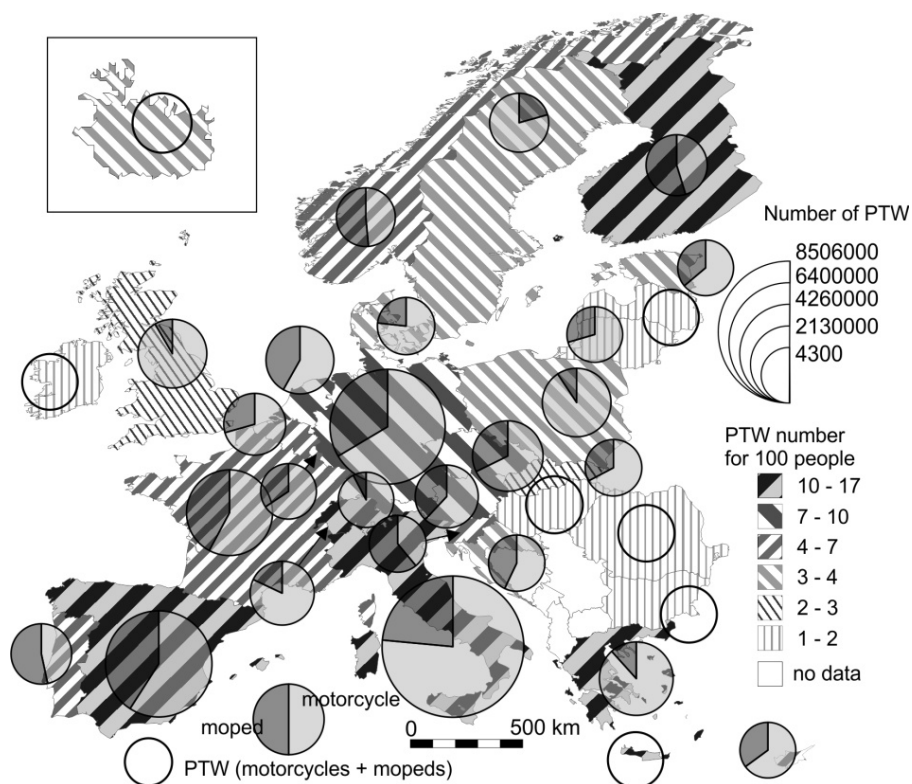Source: own compilation based on Eurostat and ACEM data.

Figure 7. Deployment of PTWs in Europe in 2014
Source: own compilation based on Eurostat and ACEM data.

Different trends in the change of the number of PTW per 100 people can be observed in different countries. The countries which recorded a steady increase in the number of PTWs in 2001-2014 were Norway, Finland, Hungary, Estonia, Greece and Spain. However, even in the indicated countries, the increase at that time was varied. An example may be Greece, where the period of crisis influenced a sharp increase in the number of PTWs, or Spain, where the growth slowed down during the crisis. In the Netherlands, Iceland, Germany, Slovakia, Austria and the Czech Republic there was also a positive trend of changes in the number of PTWs per 100 people.

However, in those countries in 2001-2014 there were periods of decline in the PTW number, both during the financial crisis and in the preceding period. However, in all these countries there was a marked increase in the number of PTWs in the last five years of the study period. There was a noticeable increase in the number of two wheelers during the crisis in France and Malta. In the case of the UK and Latvia, the crisis influenced a decrease in PTW number (Figure 8). The countries which experienced a downward trend in the study period were Sweden, Italy and to a lesser extent Ireland, Romania and Portugal.
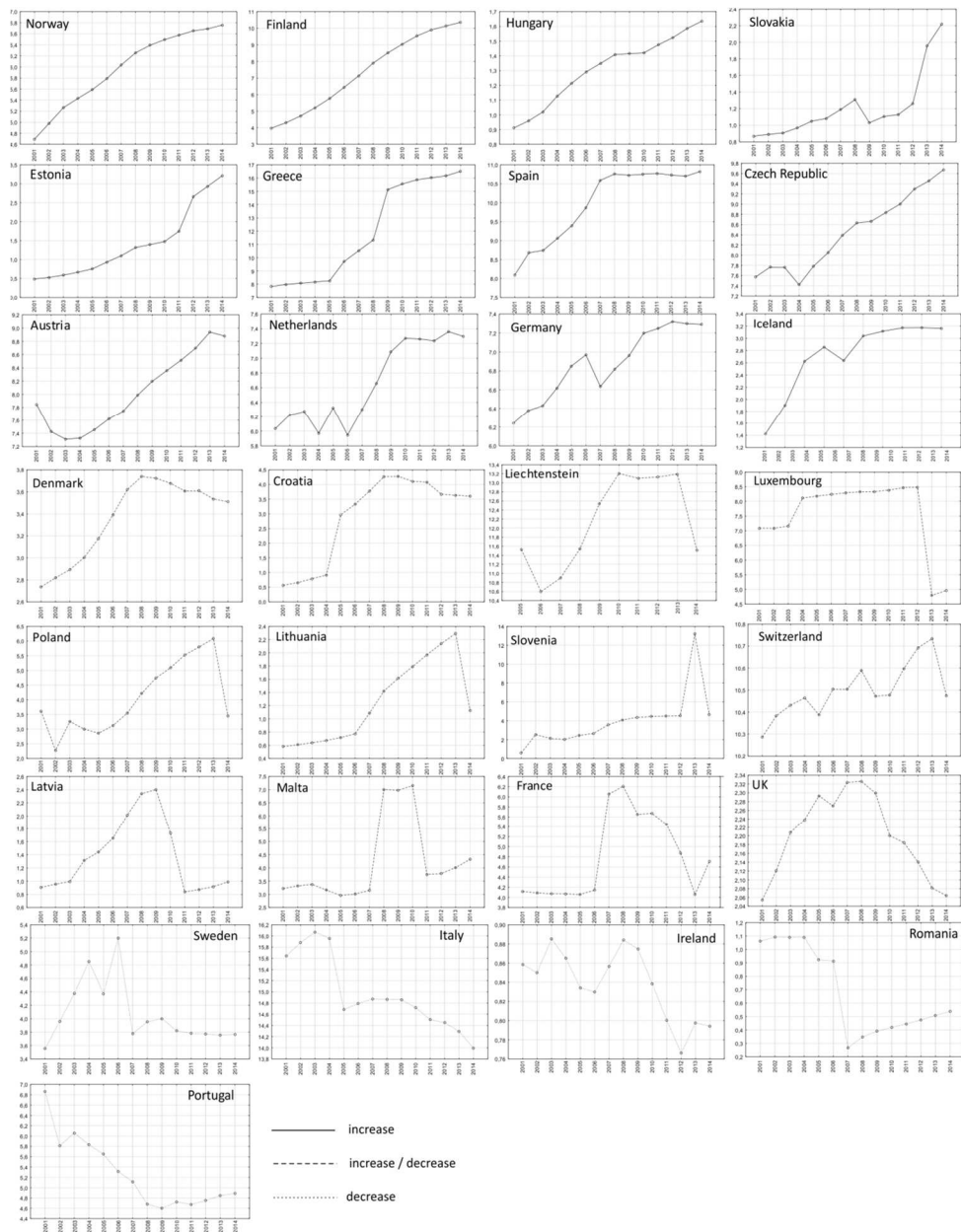
**Figure 8. A change in the PTW number per 100 people
in selected European countries between 2001 and 2014**
Source: own compilation based on Eurostat and ACEM data.

Analysing changes in the number of PTWs per 100 people in comparison to 2001, a negative relationship can be observed. The countries with the highest PTW number per capita

in 2001 recorded a decrease or increase of several percent in comparison to the beginning of the study period. Italy, Liechtenstein and Switzerland are the examples. These are rich countries where the market for two wheelers is well developed and reached a saturation level (10 PTW per 100 people). On the opposite side there are the countries with low market saturation (<0.6 PTW per 100 people) which in the period considered had a marked increase of over 500%, i.e. Slovenia (695.9%), Estonia (557.7%) and Croatia (536.9%) (Figure 9).
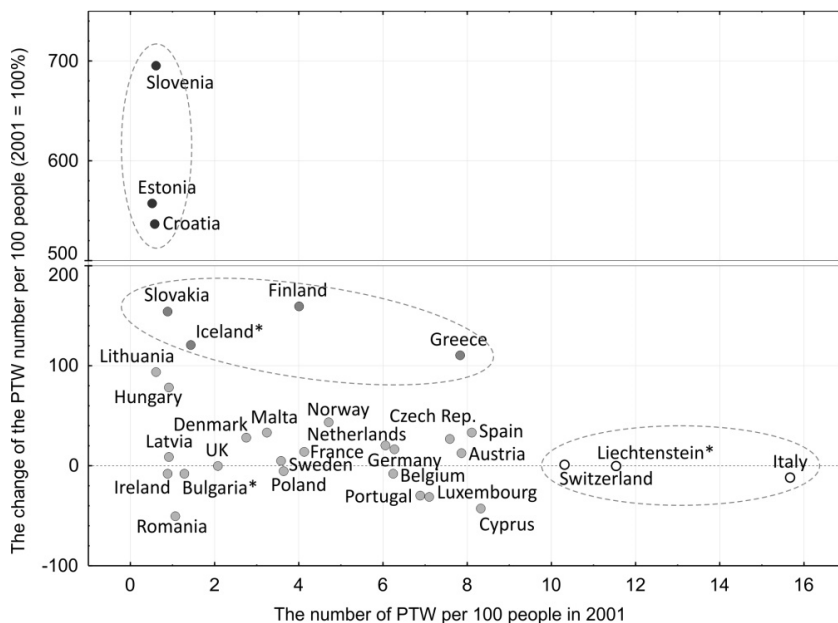

**Figure 9. A change in PTW number per 100 people
in selected European countries between 2001 and 2014**
Source: own compilation based on Eurostat and ACEM data.

These are developing countries which in the case of Slovenia and Croatia also have favourable climatic conditions for PTW transport. In Estonia, the high growth rate of foreign investment in the high technology industry (Meyer, 2004) and the development of the motorbike industry were significant factors. The reactivation of the pre-war Renard brand is an example. High growth of over 100% was also recorded in Slovakia, Finland, Iceland and Greece. It was caused by legislative changes (Finland, Slovakia), the level of the wealth of society (Iceland, Slovakia) or the impact of the financial crisis (Greece).

Among the countries where the increase in comparison to 2001 was over 100% were Hungary and Lithuania where the increase in the number of PTWs was influenced by both legal changes – the ability to drive 125cc vehicles by category B drivers and the growth of the wealth of society. The biggest decrease was recorded in Romania where after a marked decrease in the number of PTWs in 2004-2007 related to the economic development (Hunya, 2002) there was a slow increase linked to the economic crisis (Constantin, Goschin, & Danciu, 2011).

The absolute increase in the number of PTWs is mainly due to the increase in the number of motorcycles with a decrease in the number of vehicles below 50cc. This is related both to

legal changes and to the ageing of society, as vehicles with a capacity of 50cc remain largely the domain of young people. However, as statistics show, the share of motorcycles in Europe increasing from around 53% to 71% PTW was very different in various countries. The largest number of motorcycles (over 50cc) was recorded by the countries such as Romania (an increase of nearly 55% from the level of 43% in 2001): Cyprus (35% increase from 29%): Italy (increase by 34% from 42%): Slovenia (33% from 24%) and Poland (32% from 58%).

The growth of motorcycles number therefore occurred in the countries with a high rate of PTWs (Romania and Poland): as well as in the countries with low participation (Slovenia and Cyprus). In the first case, the legislative changes and the rise in the wealth of society were decisive, and in the second case the development of PTW transport in the countries of high urbanisation level and favourable climatic conditions. A high increase in motorcycles (over 20%) was also noted by rich countries, like Denmark and Luxembourg. A decrease in vehicles above 50cc was observed in the Czech Republic (45% from 97% in 2001), Finland (down by 5% from 50%) and Germany (down by 3% from 69%). In case of the Czech Republic, such a high decline could be linked to the deep economic growth (the urbanisation process) (Hindls, Hronová, & Čabla, 2011; Borowiec, 2016), whereas in Finland, the increase is mainly a result of the ageing process, as is the case of Germany.
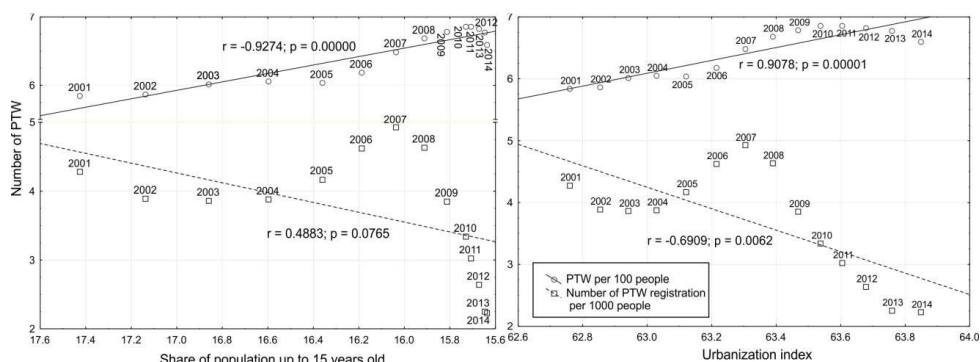

**Figure 10. The change in the PTW number per 100 people
in selected European countries between 2001 and 2014**
Source: own compilation based on Eurostat and ACEM data.

Comparing the number of PTWs and the number of their registrations with the population of Europe to the age of 15 (indicating the average age of the population) and the urbanisation index, it can be seen that in both cases the dependence is not clear. However, in both cases the impact of the crisis on the number of vehicles registered can be noticed (Figure 10). However, despite the high correlation between PTWs and the level of urbanisation and the age structure of societies, these conditions are not the only factors influencing the level of development of the PTW market. It should be emphasised that the number of PTWs is also strongly related to the level of development of the automotive industry located in a given country. In Eastern Europe, in the countries where motorcycle production was historically developed, after a period of economic transformation, a slow return to domestic brands is noticeable, even if today these vehicles, or their components, are produced outside the continent. An example is Polish Romet, Czech Java or East German Motorenwerke Zschopau (MZ). Another important factor affecting the popularity of

two-wheelers is the wealth of the society (Dorosz, 2016) and the model of public transport organisation (also in rural areas) (Guzik, 2015).

CONCLUSIONS

As shown in the above text, the PTW market in Europe refers to global trends. It should be agreed with other researchers (Law *et al.,* 2015) that it is mainly dependent on economic conditions. However, non-economic factors are also important, including mainly legal conditions and communication policy of the (local) authorities. Climate conditions cannot be forgotten. These factors are interdependent with the age structure of society or the degree of urbanisation. As shown by the region and socio-economic and legal conditions, the same factors may have a different impact on the PTW market. An example of this is the ageing process of society. On the one hand, this should affect the reduction in the number of mopeds (<50cc) but on the other hand an increase in the number of motorcycles. However, legal restrictions in allowing older people to road traffic may affect the growth of the sales of mopeds. Similarly, the process of urbanisation may affect an increase in the number of PTW (communication difficulties in the city), but also the progressing suburbanisation process may force an increase in the number of two-wheeled vehicles by increasing the number of daily shifts. Currently, PTW is both a luxury good and a car substitute depending on the region of Europe. Therefore, the analysis of the two-wheeler market is very complicated. In addition, the diversification of legal conditions in individual countries and the related difficulties in obtaining comparable statistical data allows to make an analysis with a large degree of generalisation. An example is the diversity in the rights of the holders of category B driving license. For those people in such countries as Poland, Portugal, Spain or Italy it is allowed to drive vehicles up to 125 cc. In the Czech Republic and Slovakia it is allowed to drive vehicles up to 125 cc but only with automatic transmission. While in Austria, Hungary and Switzerland additional training should be provided for the B125 category. However, in some countries, for example Germany or the UK, driving vehicles over 50cc must have category A1. Analysing the PTW market in Europe between 2001 and 2014, the following trends can be observed:

- In Europe there is an increase in the number of PTWs, which, however, varies considerably from country to country;
- Some countries reacted very strongly to the global economic crisis in the PTW segment; this led to an increase in the number of vehicles in poorer countries with good climatic conditions (e.g., Greece, Spain): while in developed countries (PTW as a luxurious item) there was a decrease (e.g. UK, Denmark);
- The largest increase in the number of PTWs was recorded in the countries with low saturation of the PTW market, where social wealth is growing (Slovenia, Croatia, Estonia, Slovakia);
- Other factors which strongly influence the PTW market are legal conditions (e.g. facilitating the management of so-called lightweight A1 motorcycles) and local government policies (e.g. limiting urban car traffic);
- PTW vehicles, which have been the domain of young people so far, are becoming a means of transport for mature and elderly people;
- Among PTW users there is a growing share of women;
- Despite numerous technical facilities, one of the determinants of the PTW development is the climate;

− An important element of the PTW market development are cultural conditions, includ-
   ing the traditions of the motor industry development;
− The structure of the PTW market in Europe is very diverse and depends mainly on
   legal and economic conditions.

The PTW market in the period analysed showed a great dynamics associated with
the economic and social changes which were occurring in both Western and Eastern
Europe. It is to be expected that in the future this market will continue to grow dy-
namically, which will be influenced by the economic development of Eastern Europe
and the processes of urbanisation and demographic ageing. Also global policies to re-
duce air pollution and local policies to tackle urban transport problems can have a dra-
matic impact on the number of two wheelers on the streets of Europe.

Summing up the changes on the PTW market in Europe, it should be stated that it is
very diverse and depends on many factors. It seems therefore necessary to carry out ad-
ditional detailed studies, including the analysis of sociological and cultural conditions in
individual countries or regions of Europe. Increasing communication problems and in-
creasing mobility needs will in many cases force significant changes in transportation sys-
tems. It seems that PTW vehicles will be one of the important elements of the future
transport of Europe. Therefore, further research into the development of the PTW mar-
ket and its determinants should be undertaken. The following questions arise if the dis-
tance of daytime shuttle services can have an impact on the choice of PTW or the road
infrastructure dedicated to PTWs has a significant impact on their popularity and how
individual transport will develop in the so-called smart city.

It seems that the issue should be continued in detailed studies carried out in in-
dividual countries or regions of Europe.

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Entrepreneurial Business and Economics Review (EBER) was established in 2013 as a peer review scientific journal published quarterly by the Cracow University of Economics (Poland).

Aim and Scope

'Entrepreneurial Business and Economics Review' (EBER), as multi-disciplinary and multi-contextual journal, is dedicated to serve as a broad and unified platform for revealing and spreading economics and management research focused on entrepreneurship, individual entrepreneurs as well as particular entrepreneurial aspects of business. It attempts to link theory and practice in different sections of economics and management by publishing various types of articles, including research papers, conceptual papers and literature reviews. Our geographical scope of interests include **Central and Eastern Europe** (CEE) as well as South-East Europe (SEE) and **emerging markets** in general, however, we also welcome articles beyond this scope.

The Journal accepts the articles from the following fields:
- **Entrepreneurship and Business Education** (in particular entrepreneurship and innovation, strategic entrepreneurship, corporate entrepreneurship, entrepreneurship methodology, promoting entrepreneurship, innovation, R&D and SMEs, education for entrepreneurship),
- **Management and Business Studies** (in particular entrepreneurial management, entrepreneurial business, management methodology, modern trends in business studies and organization theory, new trends in HRM and HRD as well as organizational behaviour),
- **International Business and International Economics** (especially international entrepreneurship, European business, and new trends in international economics including the economics of the European Union and emerging markets, as well as Europeanization),
- **Applied Economics and Statistics** (in particular the role of entrepreneurship and the entrepreneur in economics – microeconomics and macroeconomics, new trends in economics, economics methodology, current research in statistics and demography).

For each issue we accept submissions **not later than 9 months before** the particular issue releasing. The deadlines for submissions are as follows:
- By the end of June for the March Issue (no. 1),
- By the end of September for the June Issue (no. 2),
- By the end of December for the September Issue (no. 3),
- By the end of March for the December Issue (no. 4).

Call for Papers

Guidelines for Authors

We accept articles proposals if they fit the aim and scope of our journal. We release current calls for papers on our website in the 'announcement' section. In each issue we publish thematic articles (based on our call for papers) and other articles (submitted continuously to the first available issue).

The articles must be between 20 000 and **40 000** characters (including spaces as well as all necessary tables, figures, graphs and illustrations, the list of used references and any appendixes if needed).

The articles must be prepared **with accordance to our technical requirements** and taking our academic ethics code into account. **The articles must be prepared in our template**. We will reject submissions not prepared according to our requirements.

Before submitting your article, please read and apply the following rules:
▪ **EASE Guidelines for Authors of Scientific Articles to be Published in English** (version of November 2016) explaining in details how to compose a scientific article according to international standards.
▪ **APA Style Manual** (6th edition of June 2009) explaining in details how to use and cite references and how to apply linguistic rules while writing in English.

For very detailed submission instructions, including *guidelines for authors,* and all other information visit our website at: www.eber.uek.krakow.pl – please read there the following documents very carefully before your submission:
▪ Guidelines for Authors (*.pdf),
▪ **Template for Articles** (*.docx, *.dotx, *.rtf, *.pdf),
▪ Internal Review Form – Checklist of the Article(*.docx),
▪ Copyright Transfer(*.docx).

Submission of the Manuscripts

We use the OJS system for submissions. After having finished your article, when your files are ready, visit the online submission website. You will need to log into the system:
▪ If you know your login details, use your user ID and password to log on.
▪ If you do not know your login details, check to see if you are already registered by clicking on the 'Forgot your password?' button and following the on-screen instructions.
▪ If you are not already registered, you can register by clicking on the 'Not a user? Register with this site' button on the login screen and following the on-screen instructions. Please remember you should register as 'Author', however, we advise you to register also as 'Reader' and 'Reviewer'. If you don't mark 'Author' status, you will not be able to submit your article.

Reviewing Policy and Procedures

1. The editor-in-chief or another member of the editorial team will make a preliminary decision to either accept the paper for further review or reject the paper (desk's rejection) if the submitted article doesn't meet our editorial requirements or is out of our aim and scope. The author will be notified of the decision as soon as possible. In certain situations, this decision will be made following consultation with a member of the editorial council specializing in a given area of research.
2. The reviews are prepared by at least 2 independent reviewers indicated by the editorial board. The independent reviewers are not associated with the author's parent institution (external reviewers to the author).
3. Reviews are prepared using a double-blind peer review. This process is based on the rule that the reviewer does not know the identity of the author and vice versa.
4. Each review is issued in written form (later revealed to the Author) and ends with a recommendation for or against publication.
5. In addition to the recommendations made by reviewers, the Author may receive additional editorial suggestions from:
   ▪ **the editor-in-chief**, only in urgent cases,
   ▪ **an issue editor** as the executive editor responsible for the issue,
   ▪ **an associate editor** or **a guest editor** if there is a special need,
   ▪ **a layout editor** for technical and editorial comments,
   ▪ **a statistics editor** if the paper contains statistics.
6. The author must reply to all comments and suggestions (a special form is required to be filled in and to be sent back).
7. The editor-in-chief provides the final opinion based on a very detailed process.
8. Before submitting your article, please make familiar with the following forms and evaluation criteria, which must be applied by Authors (files are available at our website for downloading after logging in):
   ▪ **Internal Review Form – Checklist of the Article** (*.docx),
   ▪ **External Review Form** (*.docx),
   ▪ **Statistical Review Form** (*.docx),
   ▪ **Technical Review Form** (*.docx),
   ▪ **Author's Statement after the Reviews** (must be attached to the revised article),
   ▪ **Copyright Transfer** (must be signed before publishing).
9. Before publishing each article is proofread by a language editor (a native speaker or a bilingual speaker). Authors are obliged to apply all necessary changes, however, they can negotiate special terminology use.
10. Prior to publishing, the Corresponding Author must sign and submit the *Copyright Transfer*, otherwise we will not be able to publish the given article.
11. Each Author must follow the principles of transparency and best practices in scholarly publishing (see our website for details). Editors and the Publisher will be documenting all forms of scientific misconduct and malpractice, particularly violations of ethics and violations of science principles. Any such cases will be reported to the employer of the author and to the relevant public and state institutions.

Publication History

So far we have published the following thematic issues of EBER:

2013

Vol. 1, No. 1	Global Opportunities and Local Businesses
Vol. 1, No. 2	Modern Challenges for International Business in Europe
Vol. 1, No. 3	Contemporary Issues in International Economics
Vol. 1, No. 4	Modern Challenges for Business and Economy in CEE Countries

2014

Vol. 2, No. 1	Global Entrepreneurship from the European Perspective
Vol. 2, No. 2	Globalisation of Economies and Industries
Vol. 2, No. 3	FDI in Central Europe
Vol. 2, No. 4	New Developments in International Business and Economics in CEECs

2015

Vol. 3, No. 1	Social Entrepreneurship and Socio-Economic Development
Vol. 3, No. 2	International Entrepreneurial Orientation: Theoretical Perspective
Vol. 3, No. 3	Immigrant and Ethnic Entrepreneurship
Vol. 3, No. 4	Dilemmas of Modern Economy and Business

2016

Vol. 4, No. 1	Economics of Higher Education
Vol. 4, No. 2	Real Estate and Construction Economics
Vol. 4, No. 3	Advancing Research in Entrepreneurship
Vol. 4, No. 4	Entrepreneurship in the Global Context

2017

Vol. 5, No. 1	Retailing and Innovation
Vol. 5, No. 2	International Trade and Global Business
Vol. 5, No. 3	International Entrepreneurship: New Perspectives in IB Research
Vol. 5, No. 4	International Competitiveness

2018

Vol. 6, No. 1	Social Entrepreneurship in the Global Context

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