The increase in the implementation of internationalisation strategies by firms has led to the rapid growth of international trade and the severity of trade deficit pressures in many countries. This has attracted considerable interest from various researchers, managers, and public-policy makers into understanding the determinants of export choice and degree. In the literature, exporting is considered the most frequently used strategy of internationalisation due to it being a flexible and cost-effective mode. Hence, special focus has been put on its determinants (Suosa, Martinez-Lopez, Coelho 2008; Chen, Suosa and He 2016).

Research regarding developed countries, mostly drawing on the strategic choice perspective, recognises the importance for export decisions of management characteristics and attitudes, such as managerial human capital, international exposure, institutional factors and other determinants. Hence, it controls for the influence of managerial characteristics, neglected thus far in the literature on firms’ export choice and volume in transition countries. The results support the key hypothesis that both subjective and objective managerial characteristics are crucial for export decisions. In line with the strategic choice paradigm and behavioural economics, the findings provide support regarding the influence of the habituation and rational expectations effect, as well as the manager’s education and international exposure concerning export performance. Further, the Kosovan firms are self-selective in their export behaviour in terms of productivity supporting the Melitz model. No evidence, however, is found for the significance of institutional factors, even after performing factor analysis.

Keywords: export performance, management attitude, transition economies, Kosovo, tobit, factor analysis

JEL Classification: F14, F23, P33, P39,

INTRODUCTION

The increase in the implementation of internationalisation strategies by firms has led to the rapid growth of international trade and the severity of trade deficit pressures in many countries. This has attracted considerable interest from various researchers, managers, and public-policy makers into understanding the determinants of export choice and degree. In the literature, exporting is considered the most frequently used strategy of internationalisation due to it being a flexible and cost-effective mode. Hence, special focus has been put on its determinants (Suosa, Martinez-Lopez, Coelho 2008; Chen, Suosa and He 2016).

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growth-orientation attitude and growth expectations. Empirical evidence demonstrates a positive association between these managerial factors and the firm’s performance (Finkelstein and Hambrick 1996). There is, however, lack of consistency in the theoretical approaches leading to contradictory results in the literature. Also, there is a need for more research concerning the characteristics and attitudes of the managers on the export performance of small firms (del Río Araújo and Neira, 2006), while still controlling for business environment variables in the model (Lipuma et al. 2013).

Studies considering transition economies focus predominantly on the influence of firm characteristics and external or institutional barriers (Damijan and Rojec 2007; Gashi, Hashi, and Pugh 2014; Cieslik et al. 2015; Aralica, Svilokos, and Bacic 2018; Recica et al. 2018; Srhoj, Škrinjarić, and Radas 2018; Vitezic, Srhoj, and Peric 2018), often neglecting the influence of management characteristics. Regarding the transition economy of Kosovo, to our best knowledge, only a few studies have analysed the determinants of export performance focusing on business obstacles (Holzner and Peci 2010), migration networks (Peci, Holzner and Kutlovci 2010), human capital (Gashi 2014), and innovation (Recica et al. 2018). Albeit the first study controls for the manager’s level of education, none of them incorporates other management characteristics and attitudes.

Failing to internalise the impact of managerial characteristics and attitudes into the framework of export propensity and intensity, however, makes the analysis incomplete (White, Griffith, Ryans 1998; Fernández-Mesa and Alegre 2015). Hence, this study aims to reduce this gap in the literature by incorporating management characteristics and attitudes in an export performance model. Following managerial theory and behavioural economics, it combines the strategic choice perspective (Child 1974) and upper echelons perspective (Hambrick and Mason 1984) with the Melitz model (Melitz 2003) to build an integrated approach that will inform the empirical investigation of export performance in the post-socialist economy of Kosovo.

In an open and small economy such as Kosovo, with a low level of economic development (GDP per capita of US$ 3,902, World Bank 2018)1 accessing foreign markets remains the ultimate expansion strategy for ambitious SMEs. As such, it is crucial to identify factors that may influence the international competitiveness and export performance of Kosovan SMEs. Given this, providing empirical evidence on firm export performance is highly important both for firms and the government of the transitional and post-conflict economy of Kosovo.

The paper is composed as follows. The next section, section 2, reviews the literature dealing with the theoretical basis of the export performance determinants as well as previous research on the determinants of export performance. Section 3 discusses the research methodology. Section 4 presents the empirical findings. Finally, section 5 concludes and offers some policy recommendations as well as highlights some limitations.

LITERATURE REVIEW

Studies on export behaviour utilise a range of theories providing a fragmented view of export behaviour (Chen, Suosa, and He 2016). The most frequently used approaches include the resource-based view (RBV), contingency theory (CT), institutional-based view (IBV), and the organisational learning theory (OLT). The RBV postulates that firm heterogeneity lies not in the amount of resources per se, but in their unique internal capacities and capabilities to exploit the current resource-based advantages and to explore new resource-accumulating opportunities. The RBV is criticised on the grounds that it assumes markets to be stable and constant, ignoring the influence of external factors. This gap in the conceptual framework is filled by the IBV, which argues that in addition to the firms’ internal resources, socially constructed factors such as laws and regulations, customs, norms, and habits constrain the strategic decisions and performance (LiPuma, Newbert, and Doh 2013). The CT, arguing that competitive advantage is neither fixed nor infallible, emphasises that superior export performance is contingent on the co-alignment and interaction between internal and external factors (Hultman, Katsikeas, and Robson 2011). The OLT posits that internationalisation is a continuing process; hence, previous export experience influences current export performance. Accordingly, managers through learning-by-doing are able to better understand the interaction between internal and external factors leading to a reduction in uncertainty and thus improved export performance (Lages, Jap, and Griffith 2008).

A group of studies, focussing on developed countries, combining these four approaches and guided by the strategic choice paradigm, behavioural theory and the upper echelons model, develop and evaluate versions of the model for the firm’s internationalisation. The key focus of these models is the influence of managerial demographic, experiential, and

attitudinal characteristics. Some studies focus exclusively on managerial subjective and objective characteristics (del Rio Araujo and Neira 2006; Agnihotri and Bhattacharya 2015), while others also control for mediating the firm and various contextual characteristics (White, Griffith, and Ryans 1998; Lages and Montgomery 2005; Serra, Pointon, and Abdou 2012; Torrens, Amal, and Tontini 2014).

Without explicitly acknowledging the Melitz (2003) model, which is an extension of the Krugman (1980) trade model, to a large extent it integrates the RBV, CT and IBV approaches. According to this model, differences in firm productivity (which is related to higher quality of labour, R&D and innovation activities, learning-by-doing, as well as firm and industry spill-overs) and export costs (which are related to foreign market research, research on regulatory frameworks, development of distribution channels, and product and marketing strategy adaptation) determine export performance. Yet, it fails to recognise the importance of objective and subjective managerial characteristics regarding the firm’s productivity and performance. Breinlich et al. (2017) criticise the Melitz framework and studies using and augmenting this approach, claiming that its assumptions concerning full information and absence of uncertainty do not hold. Most of the studies regarding transition economies use an augmented version of the Melitz model and neglect the impact of management characteristics (Shinkle and Kriauciunas 2010; Holzner and Peci 2014; Gashi, Hashi, and Pugh 2014; Cieslik et al. 2015; Cieslik, Michalek, and Nasaudik 2015; Cieslik, Michalek, and Tovias, 2017; Recica et al. 2018).

Extensive critical reviews in the literature regarding the firm’s export behaviour throughout different time periods agree that there is a lack of consistency concerning: (i) the theoretical approaches to modelling export performance, (ii) the theoretical rationales developed for the explanatory variables, (iii) the respective definitions of the variables that emerge, and (iv) the empirical results (Mysen, 2013; Wright, Westhead, and Ucbasaran, 2007; Sousa, Martínez-López, and Coelho 2008; and Chen, Sousa, and, He 2016). According to the literature review conducted for the purposes of this investigation, the same conclusions apply to research on transition economies. Thus, the firms’ export behaviour in the transition context is far from being adequately researched, which raises concerns regarding the appropriateness of designing export-promoting recommendations for public and management policies.

Given the absence in the literature of a comprehensive theory-informed model to fully explain the dynamics behind the firms’ export behaviour, the not unexpected inconsistencies in empirical results, and the potentially inadequate policy implications, this study integrates several conceptual approaches, as suggested by Jones and Coveillo (2005). Guided by managerial theory and behavioural economics, it combines the strategic choice perspective and upper echelons perspective with the Melitz model, hence yielding an export performance model. This represents the key novelty of this analysis, as it enables us to investigate the influence of various management characteristics and attitudes, such as manager education level, international experience, attitudes towards past growth, and expectations regarding future growth on export performance. These factors, thus far, have been mostly ignored in the literature concerning transition economies.

**DETERMINANTS OF EXPORT PERFORMANCE**

**Entrepreneurial and Managerial characteristics**

As argued above, the novelty of this paper is the integration of managerial characteristics, both objective and subjective, which have been mainly neglected in the export literature on transition economies, and Kosovo in particular. Thus, in this investigation the principal focus will be on the characteristics of the management/owner. The other two groups of determinants of export performance represent firm characteristics and environment characteristics. The following contains a description of the theoretical expectations followed by a discussion of empirical results of the reviewed studies. The description of variables is provided in Table A1 (Appendix 1).

**Subjective measure of firm’s past growth**

Du and Temouri (2014) argue that past growth is interrelated with firm productivity, whereby these two firm characteristics reinforce each other. A group of studies use the former variable as a proxy for productivity. If introduced as a subjective measure, however, it may capture the attitudinal characteristics of the manager. According to the habituation hypothesis, current and future consumption depends on the level of previous consumption (Becker 1966; Pollak 1070). Accordingly, past growth reflects the owner’s perception concerning the possibility of, and simultaneously the owner’s objective towards expansion including growth into foreign markets. Earlier work by Hay and Kamshad (1994) suggests that the growth of small
firms depends on the firm's objective. They argue that when growth is not an important objective of the firm, the firm will not develop and grow beyond the start-up phase or will grow to a very limited extent. Other scholars, including Morrison, Breen and, Ali (2003) and Foreman-Peck, Makepeace, and Morgan (2006), argue that small business growth does not represent a self-evident phenomenon, but it is driven by the intention of the owner/manager to growth. Empirical support for the habituation hypothesis is provided by Kotorri (2010) in the context of Kosovan migration. These theoretical and empirical arguments, and the fact that both migration and exports are risky strategies associated with experiencing unknown environments, strongly support the measure to control for subjectively defined past growth in the context of exports in general, and Kosovan export in particular. Hence, the empirical investigation provided in this paper is the first to include a subjective measure of past growth to control for the effect of manager attitude towards expansion on export performance.

**Expected firm performance**

Behavioural economists argue that forward-looking expectations are crucial for decision makers, who internalise the future costs and benefits of current choices. The manager's rational expectations concerning future growth have been ignored in the export performance literature. Kotorri (2015) provides empirical support for the hypothesis that forward-looking expectations can have an important impact on decision-making among Kosovans in the context of migration. Again, given this empirical evidence and given that both migration and internalisation imply risky strategies, there is a strong argument in favour of controlling for the relevance of forward-looking expectations regarding export performance, especially among Kosovan firms.

This analysis is the first to control for (i) a subjective measure of past growth to capture the effect of manager's attitude towards expansion, and (ii) the rational expectations effect in the context of internationalisation. The integration of these two variables also enables us to customise the analysis to the Kosovan context.

**Manager’s international exposure**

Internationalisation is an endeavour that entails a great amount of uncertainty and risk due to lack of information and knowledge concerning foreign markets (Suosa, Martinez-López, and Coelho, 2008). The management’s exposure to foreign countries through either work experience or education may assist in acquiring such knowledge and information and familiarise them with international markets. This, in turn, enhances the management’s abilities and skills to better analyse and understand different socio-economic and cultural environments as well as customer preferences (Markus and Kitayana 1991), thereby resulting in enhanced management abilities to understand and deal with the challenges of internationalisation (Cavusgil and Zou, 1994). International exposure enables the creation of social and professional networks, understanding of business ethics and practices, and customising marketing strategy involving the idiosyncrasies of international markets (Tumbull and Welham 1985). Given these arguments, international exposure is expected to have a positive impact on export performance. Empirical evidence in favour of this hypothesis is provided by Agnihotri and Bhattacharya (2015) as well as Lee and Park (2008). Serra, Pointon, and Abdou (2012) use a different measure, namely language proficiency, and find that it positively impacts export performance. Studies on transition economies, however, often ignore the influence of this variable. This effect is operationalised through a dummy variable taking the value of 1 if the manager has made business trips or had work experience abroad, and zero otherwise.

**Manager’s education**

As argued above, the manager’s level of education is an important determinant of the firm’s export performance. Strategic decision-making is a managerial responsibility, including export decisions. Given this, the managers’ education is important, as it enhances entrepreneurial skills, the capabilities to analyse information, as well as the cognitive skills and abilities necessary for strategic decision-making, especially when related to difficult international markets. Better educated managers have better risk analysis skills and are more rational; hence, they have better risk-taking abilities and a broader business perspective (Hambrick and Mason 1984). Better education also enhances the skills of managers to be more receptive and adaptive to cultural differences, avoiding ethnocentric bias (Andersen 1997). All these arguments suggest improved strategic decision-making, thus yielding improved export performance. Some studies, in addition to or instead of workers’ education, consider the management’s education and provide empirical support for its positive impact on export performance (Tihanyi et al. 2000; Ayan and Percin, 2005; Cerrato
and Piva 2012; Gashi, Hashi, and Pugh 2014; Agnihotri and Bhattacharya 2015; Cieslik et al. 2015; Cieslik, Michalek, and Nasaudik 2015; Cieslik, Michalek, and Tovias 2017; Lejpras 2018). There is no evidence, however, for this hypothesis in Serra, Pointon, and Abdou (2012). Unlike Gashi (2014) who controls for combined workforce education, and Gashi, Hashi, and Pugh (2014) that control only for manager education, in this analysis we distinguish between the manager’s and employees’ education levels and control for both effects. In order to capture this specific human capital effect, a dummy variable is introduced, taking the value of one if the manager has higher education, zero if otherwise.

**Training**

Human capital theory argues that, in addition to education, training is also considered to lead to greater entrepreneurial capabilities as well as cognitive skills and abilities necessary in difficult international markets (Serra, Pointon, and Abdou 2012). Education mainly focuses on generic knowledge and skills, while training has the advantage of being a more effective mechanism for acquiring firm-specific skills and competencies. Hence, training is considered as a more flexible way of learning specific skills and/or upgrading skills to complement new technologies and processes. Empirical evidence suggests that training positively impacts export performance (Gashi 2014). Yet, results in Gashi, Hashi, and Pugh (2014) indicate that the impact is not statistically significant. In this paper’s analysis, it is unfortunately impossible to distinguish between the manager’s and employees’ trainings. Therefore, the corresponding variable is operationalised through a dummy variable taking the value of one if the firm has undertaken training, zero if otherwise.

**Manager’s age**

Age is arguably one of the personal attributes of the management that impacts export performance. Theoretically, it is argued that this relationship has an inverse U shape. Managers of a young age are often more energetic and enthusiastic and also are more likely and able to undertake risky projects (Ensley, Perason, and Pearce 2003). Hence, they are expected to have a higher probability of making riskier decision, such as export decision. As they age, however, managers are expected to become less energetic and motivated, more risk-averse and thus less inclined to consider radical changes and risky strategies (Tihanyi et al. 2000). This may lead to them changing priorities in favour of more stability at the expense of risky projects. Also, with age, managers may also change their personal and professional priorities, thereby favouring financial and career security. Consequently, older managers are less likely to be involved in export activities. None of the studies on export performance in transition economies controls for the impact of management age. Instead, they control for company age. For developed countries, empirical results are inconsistent. Tihanyi et al. (2000) and Agnihotri and Bhattacharya (2015) provide support for a negative relationship, while the results in Serra, Pointon, and Abdou (2012) and Rivas (2012) show that the relationship is insignificant.

**Firm characteristics**

**Firm size**

The Melitz model posits that higher-productivity firms self-select into internationalisation. The productivity effect is captured by the firm’s size in most of the studies. Its importance is explained based on three fundamental factors, such as organizational resources, economies of scale, and the high risk perception in international activity (Katsikeas, Piercy, and Ioannidis 1995). Larger firms are expected to have more of managerial, productive, and financial resources which can lead to improved efficiency and, hence, larger firms are in an advantageous position to better face the challenges of internationalization and growth expansion plans compared to small firms (Melitz 2003; Cerrato and Piva 2012; Lajqi and Krasniqi 2017). Counter-arguments are provided by Bonaccorsi (1992) and Mills (1984), who purport that small size is not an obstacle per se, as such firms may successfully enter and operate in international markets due to their innate flexibility. Empirical support for this hypothesis is provided by Filatotchev et al. (2009), Majocchi et al. (2005), Suarez-Ortega and Alamo-Vera (2005), Gashi, Hashi, Pugh (2007), Calof (1994), Cerrato and Piva (2012), as well as Cieslik, Michalek, Michalek, and Mycielski (2015). Bonaccorsi (1992) and Katsikeas, Piercy, and Ioannidis, (1995) find mixed results, while Esteve-Perez et al. (2011) report a negative impact. Previous firm size is used as a proxy of productivity to avoid endogeneity between firm size and performance (Gashi 2014).
**Quality standards**

Quality standards can solve information asymmetries between trading partners and reduce transaction costs, as well as act as catalysts to trade and export performance through improving firm reputation (Hudson and Jones 2003; Jaffee and Masakure 2005). Some authors purport that quality standards may inhibit exporting and trade, especially for middle- and low-income countries (Anders and Caswell 2009; Hoekman and Nicita 2011). Christmann and Taylor (2006) argue that customers in foreign markets may pressure firms to adopt international standards and increase quality of products and hence improve export performance. Keiichiro (2011) found that the effect of ISO certification improved the export performance of firms in Argentina and Central Asia, while Chen et al. (2008) show how quality standards can positively influence firm export performance. Similar results are provided for Kosovo in Gashi (2014).

**Imports**

Imports are important for the firm’s capital formation (Gashi, Hashi, and Pugh 2014). Moreover, firms can benefit in terms of technological advancements through technology spillovers when technology is embedded in the imported capital goods (Eaton and Kortum 2001). If firms invest in additional equipment and training to learn and/or upgrade skills to complement imported technologies, imports may also contribute to further technological advances (Aw, Roberts, and Winston 2007). Consequently, imports can enhance firm productivity, which in turn, can improve export performance. Additionally, importing from foreign partners may also enable firms to establish social and professional networks and gain knowledge of, information about and experience in international markets through which they may enhance the firm’s internationalization. Results in Gashi, Hashi, and Pugh (2014) indicate a positive impact of imports on export behaviour.

**Employee education**

Following the arguments developed above concerning the importance of human capital, employee education is expected to have a positive impact on the firm’s export performance. Analysing Kosovan SMEs, Gashi (2014) finds that education has a negative impact suggesting that it reflects the lack of business-related content or the mismatch between the curricula and labour market needs. Moreover, Krasniqi (2012a) analysing the determinants of firm growth in Kosovo, purports that this may also reflect the workers’ dissatisfaction due to them being overqualified because of the high rate of unemployment in the Kosovan labour market.

**Professional management**

Whether the owner or a non-family member manages the firm, the position of manager is considered a predictor of export performance (Cerrato and Piva 2012; Minetti, Murro, and Zhu 2015). Theoretically, owner-run firms are expected to be more risk-averse. This, inter alia, is because their lower financial diversification leads to them being less entrepreneurial compared to management-run firms (Sharma, Chrisman, and Chua 1997). Hence, they are more likely to remain in their domestic market niche and avoid or postpone internationalisation decisions. As such they are expected to have a lower probability of pursuing risky export strategies (Sraer and Thesmar 2007; Cerrato and Piva 2012). Yet, another strand of literature argues that family-run firms have a greater ability to internalise the long-run benefits of internationalisation and thus are more likely to pursue such business projects (Ward 1988). The theoretical impact of family ownership on export performances is ambiguous. So, too, is the empirical evidence. Minetti, Murro, and Zhu (2015) provide empirical support for this hypothesis, while Luis Miguel Pacheco (2017) offers support for the negative impact of family involvement on export performance. The results in Cerrato and Piva (2012) suggest that the relationship is insignificant. To capture this effect a dummy variable is introduced taking the value of one if the firm is run by the manager, zero if otherwise.

**Firm age**

According to human capital theory, with age firms acquire and accumulate managerial and entrepreneurial experience, knowledge and competencies as well as learn about competitive environments which improves their productivity and hence performance. Put in an internationalization context, this suggests that more experienced firms are expected to be better able to perceive less uncertainty and more opportunities of internationalization, to understand foreign market mechanisms, and to develop personal and professional networks (Lejpras, 2018). Yet, according to the learning-by-doing theory, due to diminishing marginal returns from experience the firms’ ability to
learn from experience decreases with age (Krasniqi 2012). Empirical results for the impact of firm experience are contradictory. Several studies control for firm age and provide support for a positive relationship (Cerrato and Piva, 2012; Cieslik, Michalek, and Tovias, 2017), whereas Gashi (2014) provides support for a nonlinear relationship. Other studies use years of export experience as a better proxy, but their empirical results are again inconclusive. While Lado, Martinez-Ros, and Valenzuela (2004) report a positive impact, Brouthers and Nakos (2005) find a negative impact. The results in Katsikeas, Piercy, and Ioannidis, (1995), Cerrato and Piva (2012) and Cieslik, Michalek, and Nasadiuk (2015) suggest a statistically insignificant relationship. The company age effect is captured by the number of years since establishment.

**Firm’s legal form**

According to Stiglitz and Weiss (1981), theoretically, owners of limited liability firms are more inclined to pursue riskier endeavours and consequently more likely to achieve better performance. Harhoff, Stahl, and Woywode (1998) found that firms registered as limited liability companies have shown higher growth rates because the entrepreneur’s choice of legal status reflects the riskiness of projects undertaken and can affect the ability to access external finance. Accordingly, they are more likely to have greater credibility with banks and therefore easier access to external financing for their projects (Mohnen and Nasev, 2009). Guided by these arguments, such firms are expected to have better export performance. None of the studies reviewed control for this effect, which in this analysis is operationalised through a dummy variable taking the value of one if the firm is registered as a limited liability company, zero if otherwise.

**Environmental characteristics**

**Barriers to doing business**

The institutional environment in TEs is unique, and can be marked by inadequate legislations, changing regulations, and policy volatility (Krasniqi and Desai 2016; Krasniqi and Mustafa 2016; Krasniqi 2012b; Welter and Smallbone 2011). Further, it is the lack of not only adequate rules and regulations, but also the enforcement of these formal institutions, which often creates incentives for corruption. Frequent changes in laws, regulations and even procedural rules can create uncertainty and raise costs of acquiring accurate information and ensuring compliance (Krasniqi and Desai 2016). Such business environments negatively impact firm performance. An uncertain and non-conducive domestic environment, however, might act as a push factor encouraging firms to shift their attention to exporting. Firms that perceive their domestic business environment as having fewer opportunities because of business barriers will tend to offset the perceived domestic market risks by exporting their new or significantly improved products to a relatively safer market (Recica et al 2018). Both formal and informal institutions can reflect the extent to which a firm can rely on an environment of stability, consistency, and predictability (LiPuma, Newbert, and Doh 2013). They can affect exporting through increasing or lowering perceived costs specific to export activities in a firm in a transitional context (Krasniqi and Desai 2016). For example, Faruq (2011) highlights that the higher quality of the rule of law, institutions tend to have lower corruption, more efficient bureaucracy, and more secure property rights, which can have positive impacts on export growth.

**Agglomeration externalities**

New Economic Geography argues that firms benefit from positive externalities derived through the agglomeration process. Such externalities relate to knowledge spill-overs and urban institutions in particular (Alcacer and Chung 2007). Firms operating in such dynamic environments benefit from reduced costs resulting from easy and cheap access to specialised resources, including better infrastructure, specialised inputs, information, knowledge spill-overs, skilled labour, as well as scientific and professional institutions (Krugman 1991; Fujita and Thisse 2002; and Hafner 2013). Thus, firms located in the so-called “core locations/regions” are expected to achieve better export performance. In the empirical model developed below, the dummy variable equalling one (and zero if otherwise) if the firm is located in such an area measures the effect of agglomeration externalities. Only two of the reviewed studies control for such positive externalities and the results are inconsistent. Gashi, Hashi, and Pugh (2014) find a significant positive impact, while results in Gashi (2014) are statistically insignificant. In an analysis of growth among Kosovan small firms, the different model specifications provide mixed results regarding the importance of agglomeration externalities (Krasniqi 2012).
**RESEARCH METHODOLOGY**

**Survey and Data**

This study data stem from a survey with 500 Kosovan entrepreneurs who completed questionnaires through the face-to-face interviews during 2013. Respondents were key informants, primarily the owner, or occasionally the general manager of companies who had information about the entrepreneur and company. The questionnaire was designed by one of the authors, inter alia, for the purposes of this study. The sample was drawn randomly from the business register kept at the Kosovo Business Registration Agency (KBRA). It is stratified based on three sectors (trade, services, and manufacturing) and three company size cohorts based on number of employees (Less than 10 employees, 10-49 employees, and 50 or more employees). No company size limits are applied in sampling to ensure representativeness of the overall private sector in Kosovo. The stratification yielded the following sectorial distribution of the firms: trade 55.57 percent, services 27 percent, and manufacturing 17.43 percent.

On the basis of the public records kept at KABR, approximately 19 percent of the firms could not be surveyed because they either closed their activities, or could not be reached. This could cause sample selection bias of low performing firms excluded from the sample that were forced to exit (Krasniqi 2012). For the remaining 81 percent, the response rate was very high, approximately 95.8 percent.

Following the conceptual framework elaborated above, the determinants of whether to export or not and of how much to export are considered to be the identical. Empirically, we deploy the tobit model to estimate a model of firm export performance. Thus, the decision-making process is considered to be dual where the dependent variable measures the probability of the firm to export and the intensity of export. We consider three broad sets of factors influencing export performance: firm characteristics, environment characteristics, and management characteristics. Following Greene (2003), the general specification for the tobit specification is:

\[ y_i^* = x_i' \beta + \epsilon_i \]
\[ y_i = 0 \text{ if } y_i^* = 0 \]
\[ y_i = y_i^* \text{ if } y_i^* > 0 \]
\[ \epsilon_i \sim N(0, \sigma^2) \]

where \( y_i \) equals zero implies that the firm does not export, while \( y_i \) equals \( y_i^* \) implies that the firm exports; \( i=1,2,\ldots,N \) firms; \( x_i \) denotes the \( 1x(k+1) \) vector of observed explanatory variables describing firm characteristics, environment characteristics and a group of management characteristics; \( \beta \) represents the corresponding \((k+1)x1\) vector of coefficients to be estimated; and \( \epsilon_i \) are the error terms that are independently and individually distributed (iid) over the whole sample with a mean of 0 and variance \( \sigma^2 \).

As argued above, data missingness is a common limitation of survey data. This holds for this data set too (see Table A1). Considering only observed data, that is, applying list-wise deletion (LD), in the empirical investigation may lead to loss of efficiency and possible bias. Therefore, it is advised that methods for handling missing data be deployed. The type of method, however, depends on the data missingness mechanism. As the missing completely at random (MCAR) mechanism is too strong an assumption in survey data (Little and Rubin 2002), the missing at random (MAR) mechanism is recommended instead. The most appropriate method to deal with missing data under this assumption is multiple imputation (MI). In this analysis, it is assumed that the MAR mechanism holds and, thus, MI is used. The results from this method are compared with those from LD. For a critical analysis of issues relating to missingness mechanisms and methods for handling missing data, please refer to Kotorri (2015) as this is beyond the scope of this research.

**EMPIRICAL RESULTS**

Table 1 reports the results of the probit and tobit estimations under List-wise deletion (LD) and multiple imputation (MI). In the last column, the expected correlations of the independent variables with the dependent variable are presented. The results are broadly the same across all model specifications. Few differences in tobit results exist between LD and MI. Although of the same sign, the marginal effects are smaller in magnitude and three variables are different regarding statistical significance under MI. To avoid confusion, only the LD results will be interpreted and the MI results will be referred to when there are important differences. The probit results will only be considered when discussing the validity of the tobit model.
### Table 1: The estimated determinants of export performance

<table>
<thead>
<tr>
<th>Variables</th>
<th>Tobit - LD</th>
<th>Probit - LD</th>
<th>Tobit - MI</th>
<th>Probit - MI</th>
<th>Expected sign</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Managerial characteristics</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pastgrowth_subjective</td>
<td>39.02*</td>
<td>1.335</td>
<td>5.037</td>
<td>0.429</td>
<td>Positive</td>
</tr>
<tr>
<td></td>
<td>(24.01)</td>
<td>(0.883)</td>
<td>(7.996)</td>
<td>(0.533)</td>
<td></td>
</tr>
<tr>
<td>Expected performance</td>
<td>-31.22</td>
<td>-1.060**</td>
<td>-5.911</td>
<td>-1.015**</td>
<td>Ambiguous</td>
</tr>
<tr>
<td></td>
<td>(21.65)</td>
<td>(0.662)</td>
<td>(7.183)</td>
<td>(0.483)</td>
<td></td>
</tr>
<tr>
<td>International exposure</td>
<td>97.20***</td>
<td>4.132***</td>
<td>46.79***</td>
<td>3.209***</td>
<td>Positive</td>
</tr>
<tr>
<td></td>
<td>(27.99)</td>
<td>(1.078)</td>
<td>(9.878)</td>
<td>(0.585)</td>
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<tr>
<td>Education_manager</td>
<td>52.15**</td>
<td>2.227*</td>
<td>15.41*</td>
<td>1.278**</td>
<td>Positive</td>
</tr>
<tr>
<td></td>
<td>(25.61)</td>
<td>(1.166)</td>
<td>(8.649)</td>
<td>(0.572)</td>
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</tr>
<tr>
<td>Training</td>
<td>-12.33</td>
<td>-0.166</td>
<td>-1.292</td>
<td>-0.118</td>
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<tr>
<td></td>
<td>(24.19)</td>
<td>(0.844)</td>
<td>(7.211)</td>
<td>(0.482)</td>
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<td>Age_manager</td>
<td>0.00829</td>
<td>-0.0308</td>
<td>0.0221</td>
<td>-0.0171</td>
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<tr>
<td></td>
<td>(5.131)</td>
<td>(0.193)</td>
<td>(1.905)</td>
<td>(0.132)</td>
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<tr>
<td>Age_sqr_manager</td>
<td>-0.000468</td>
<td>2.56e-05</td>
<td>-0.00353</td>
<td>-0.000208</td>
<td>Nonlinear</td>
</tr>
<tr>
<td></td>
<td>(0.0619)</td>
<td>(0.00229)</td>
<td>(0.0230)</td>
<td>(0.00162)</td>
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</tr>
<tr>
<td><strong>Firm characteristics</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Firm size</td>
<td>-0.157</td>
<td>-0.256</td>
<td>-0.142</td>
<td>-0.0157</td>
<td>Nonlinear</td>
</tr>
<tr>
<td></td>
<td>(6.665)</td>
<td>(0.305)</td>
<td>(3.009)</td>
<td>(0.208)</td>
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</tr>
<tr>
<td>Quality standard</td>
<td>40.66*</td>
<td>2.039*</td>
<td>16.09*</td>
<td>0.910*</td>
<td>Positive</td>
</tr>
<tr>
<td></td>
<td>(23.33)</td>
<td>(1.083)</td>
<td>(8.941)</td>
<td>(0.548)</td>
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<tr>
<td>Imports</td>
<td>18.23</td>
<td>0.0189</td>
<td>15.05**</td>
<td>0.860*</td>
<td>Positive</td>
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<td></td>
<td>(22.94)</td>
<td>(0.742)</td>
<td>(7.580)</td>
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<td>Education_employee</td>
<td>-139.2</td>
<td>-4.412*</td>
<td>-29.13*</td>
<td>-2.873**</td>
<td>Ambiguous</td>
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<tr>
<td></td>
<td>(90.55)</td>
<td>(2.594)</td>
<td>(16.47)</td>
<td>(1.360)</td>
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<tr>
<td>Professional management</td>
<td>-8.980</td>
<td>-0.162</td>
<td>0.834</td>
<td>0.120</td>
<td>Ambiguous</td>
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<td>(21.33)</td>
<td>(0.721)</td>
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<td>Firm age</td>
<td>0.468</td>
<td>0.0536</td>
<td>0.216</td>
<td>0.0166</td>
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</tr>
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<td></td>
<td>(1.309)</td>
<td>(0.0466)</td>
<td>(0.372)</td>
<td>(0.0176)</td>
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<tr>
<td>Firm legal structure</td>
<td>18.02</td>
<td>0.0973</td>
<td>3.283</td>
<td>-0.538</td>
<td>Negative</td>
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<td></td>
<td>(27.82)</td>
<td>(0.944)</td>
<td>(11.72)</td>
<td>(0.579)</td>
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<td><strong>Environmental characteristics</strong></td>
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<tr>
<td>Corruption</td>
<td>2.654</td>
<td>0.0465</td>
<td>6.508</td>
<td>-0.289</td>
<td>Negative</td>
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<tr>
<td></td>
<td>(18.17)</td>
<td>(0.583)</td>
<td>(6.688)</td>
<td>(0.449)</td>
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<tr>
<td>Agglomeration</td>
<td>6.307</td>
<td>0.185</td>
<td>-24.99**</td>
<td>-0.469</td>
<td>Negative</td>
</tr>
<tr>
<td></td>
<td>(38.46)</td>
<td>(1.631)</td>
<td>(10.97)</td>
<td>(1.341)</td>
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<tr>
<td>Constant</td>
<td>-147.0</td>
<td>-3.405</td>
<td>-38.14</td>
<td>-1.354</td>
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</tr>
<tr>
<td></td>
<td>(121.5)</td>
<td>(4.216)</td>
<td>(44.12)</td>
<td>(3.183)</td>
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<tr>
<td>Sigma</td>
<td>46.60***</td>
<td>31.06***</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(9.002)</td>
<td>(3.789)</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Uncensored observations</td>
<td>18</td>
<td></td>
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<td></td>
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<tr>
<td>LRχ²(16)</td>
<td>75.61</td>
<td>113.84</td>
<td></td>
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<tr>
<td>Prob&gt;χ²</td>
<td>0.0001</td>
<td>0.001</td>
<td></td>
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</tr>
<tr>
<td>Pseudo R2</td>
<td>0.26</td>
<td>0.79</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Log likelihood</td>
<td>-108.09</td>
<td>-14.68</td>
<td></td>
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Robust standard errors in parentheses. Levels of significance: *** p<0.01, ** p<0.05, * p<0.1.
Prior to the interpretation of empirical results, a brief discussion regarding diagnostic tests will be provided, albeit such tests are not well-developed for tobit and probit. According to the pseudo $R^2$ measure of the overall fit, and the LR chi$^2$ and Prob>chi$^2$ measures of the joint and partial significance of the parameters, both model estimations perform well. As a diagnostic check for the adequacy of using tobit, a comparison between the results from probit and tobit is suggested by Greene (2011). As shown in Table 1, the results between the two estimation methods are fairly consistent, as the same variables are statistically significant and have the same signs. Although the age of the company and the share of employees with higher education have the same signs, they are statistically significant only under MI, in both probit and tobit. Thus, the results provide broad support for the appropriateness of using tobit, suggesting that it provides consistent and unbiased estimates.

Strong support is found for the correlation between export performance and managerial characteristics, namely the manager’s perception of the firm’s past performance and manager’s forward-looking expectation of the firm’s future performances, as well as managerial education and international exposure. As expected, the former variable, which proxies the manager’s perception concerning firm productivity is positive and significant. Therefore, Kosovan firms whose managers perceive that they have been more productive in the last three years have better export performance. The correlation of the latter attitudinal variable with export performance was a priori ambiguous. Empirically, though, the effect is found to be negative. This suggests that Kosovan firms whose managers perceive that their performance will improve are discouraged from risky strategies, such as internationalisation, and decide in favour of remaining in the domestic market. It has to be noted, however, that this variable is statistically significant only under the probit estimation.

As expected, the results suggest a positive and significant association of the dummy variable showing that the manager has higher education with export performance. This supports the hypothesis that better educated managers have better skills for entrepreneurship, strategic decision-making, risk analysis, as well as understanding and adapting to cultural differences. The coefficient of the manager’s international experience is found to be positive, highly significant throughout model specifications. This is in line with the view that international exposure helps managers improve their abilities and skills to analyse and understand different socio-economic and cultural contexts, which, in turn, enhances their skills to deal with challenges and to adapt their strategies to foreign markets. Furthermore, this also supports the hypothesis that through international experience, managers develop social and professional networks, as well as learn foreign business ethics and practices that enhance their skills to customise the firms’ strategies to the needs of foreign markets.

Contrary to expectations, no empirical support is provided for the nonlinear relationship between manager’s age and export performance. Also, there is no evidence for a significant correlation between training on exporting, but it has a negative effect. This may be a result of the quality and type of training, which may suggest that more specialised training for exporting can be beneficial for firms.

Among the control variables representing firm characteristics, only quality standard is statistically significant. In line with expectations, quality standard has a positive sign suggesting that Kosovan firms that adopt quality standards are better able to solve information asymmetries and reduce transaction costs, thereby leading them to experience better export performance. The dummy variable showing that the firm imports has the expected positive sign across all model specifications, but is statistically significant only under MI. This supports the hypothesis that firms who import are more likely to benefit from productivity spill-overs from their partners, leading them to enhance their export performance.

Contrary to expectations, firms with a larger share of employees with higher education have a worse export performance, all else equal. Yet, this is not completely unexpected, as similar results are found in Gashi (2014) and Krasniqi (2012a). This evidence supports the view that workers are dissatisfied due to being overqualified and hence their qualifications do not contribute to the firm’s performance (Krasniqi 2012a), and/or that there are inconsistencies between Kosovan higher education curricula and market needs (Gashi 2014). However, considering the positive and highly significant association between the manager’s education and export performance it is more likely that the explanation in Krasniqi (2012a) holds. Additionally, these results suggest that the level of education of the manager, rather than that of employees, influences export decisions among Kosovan firms.

These empirical findings suggest that there is no significant effect of agglomeration externalities and institutional factors on export performance, although both have the expected signs. As per the agglomeration effect, this may be a result of Kosovo being a small country with very limited urban/rural differences, leading to lack of variation in terms of institutional and physical infrastructure.
A sensitivity analysis has been performed to further investigate the relevance of institutional factors for export performance. For this purpose, a factor analysis has been conducted employing all the items listed under the question on barriers to doing business.\textsuperscript{3} The analysis is based on the iterated principal axes with SMC as initial communalities, whereby three factors are retained. The three factors are included into the tobit specification to substitute for the variable capturing corruption perceptions. The results remain robust to this specification change, while none of the three factors representing business barriers is statistically significant. One explanation could be that institutional quality in a country of export destination is more important than the quality of institutions for exporting companies, which we cannot control due to data limitations (see LiPuma et al. 2013).

**LIMITATIONS AND SUGGESTIONS FOR FUTURE RESEARCH**

A common limitation in survey analyses, whether recognised or not, is the qualitative nature of data and the issues relating to self-declaration. These are also issues for this empirical analysis. Rather than stemming from a business survey or financial transactions receipts, the dependent variables, export propensity and export intensity, and independent variables are self-reported. Thus, these variables may be misreported leading to measurement errors. Second, managerial attitudinal characteristics and business barriers represent the manager’s/owner’s perceptions who may be inclined to understate or exaggerate their effect. Third, there is lack of variation in the variables representing government assistance and foreign firm ownership, while information about managerial attitudes towards internationalisation was only collected from exporters and information about other psychological characteristics of managers was not available. Therefore, it is impossible to control for the effects of these variables in the empirical investigation. Fourth, data on total factor productivity was not available in order to provide a robustness check for the subjective measures of productivity. Fifth, results may suffer from survivorship bias as 19 percent of probably low-performing firms are excluded from the sample as they have exited the market. Finally, the conclusions may be limited by country-specific bias as the analysis is based on Kosovan firms only. Despite its shortcomings, this survey is one of the most comprehensive and appropriate sources of information available in Kosovo for focussing on the relevance of managerial characteristics, as it was designed by one of the authors, among others, for this purpose. Given the limitations, it is suggested that future research considers managerial attitudes towards internationalisation, as well as foreign firm ownership and government assistance programmes. Another future investigation technique that would benefit this field of study is to use factor analysis to capture the importance of different psychological attitudes of managers. For future research, we also suggest analysing the correlation between total factor productivity and exporting as a robustness check. Further, export performance research would strongly benefit if future studies consider several transition economies, and if possible use longitudinal data sets.

**CONCLUDING REMARKS AND POLICY IMPLICATIONS**

Although for managerial theorists and behavioural economists, the managerial skills and capabilities can have a determining influence on the strategic decisions of firms and hence on export performance, most of the studies regarding transition economies ignore this aspect of firm heterogeneity. Given this, this analysis is an attempt to contribute to a greater understanding of the importance of managerial characteristics, both objective and subjective, for the firms’ export performance in a transition context. As argued above, empirically this is possible as the questionnaire is designed for this purpose by one of the authors. Using a random sample of 500 Kosovan firms, this study examines the role of managerial characteristics along with firm and environmental characteristics concerning export behaviour. The overall results indicate that managerial characteristics, rather than firm or environmental characteristics, determine the export performance of Kosovan firms.

In line with the upper echelons theory and behavioural economics, the results provide strong support for the key research hypothesis that managerial characteristics are important determinants of export performances among Kosovan firms. Among the variables controlling for managerial characteristics, four have statistically significant effects on export behaviour. This study is the first to control for the manager’s perception concerning the firm’s performance in the past three years and the manager’s expectations regarding firm performance. Both of these variables capturing subjective managerial characteristics have significant correlations with export performance.

\textsuperscript{3} Details on the question and on the factor analysis are available upon request from the author.
Consistent with the findings in Agnihotri and Bhattacharya (2015) and Ayan and Percin (2005), albeit specified differently and for other countries, the managements' level of education has an important impact on the export behaviour of Kosovan firms. The findings suggest that manager's international experience also has a positive and highly significant effect on export behaviour.

Support, although rather limited, is provided for Melitz's assumption that firms are selective in export behaviour in terms of productivity. The findings indicate that variables capturing productivity-enhancing effects are highly important for export behaviour. Thus, having obtained or obtaining a quality certificate as well as having imports improve the export performance of Kosovan firms. Gashi (2014) provides similar results for the effect of adopting quality standards for Kosovan firms. Although they use a slightly different variable, in their estimate Gashi, Hashi, and Pugh (2014) indicate a similar effect for imports. Albeit not unexpected, the employee's education has a negative association with firm's internationalisation. Similar results are reported in Krasniqi (2012a) and Gashi (2014). Other firm characteristics are statistically insignificant.

To sum up, the results are in line with both the upper echelons perspective and the Melitz model. Kosovan firms are selective in their export behaviour in terms of both subjective and objective managerial characteristics and firm characteristics. Firms, whose managers perceive that performance has improved in the last three years, expect that firm performance will worsen or remain the same, possess higher education levels, as well as have international experience, exhibit better export performance. Further, firms who import and have obtained quality certification have higher export intensities. Contrary to expectations, the institutional environment and agglomeration externalities do not seem to be relevant for the firms' export decisions.

This research has important implications for both firm and government decision-makers, as well as researchers focussing on other transition economies or on countries with a similar context. Given the broad similarity between the results of probit and tobit, the same policy implications will support the firms' internationalisation for both non-exporters and exporters. The key implication for researchers is that managerial characteristics and attitudes should be included to avoid potential bias in empirical results. From the perspective of the firm, the results indicate that hiring managers with higher education and international experience may improve export performance as they have better strategic decision-making skills and capabilities, improved understanding of foreign markets, and possess established social and professional networks. Simultaneously, in order to improve their productivity and through that their export-performance firms are advised to provide on-the-job trainings specifically customised to their needs rather than rely on generic training programmes and on the skills and competencies of their employees acquired through formal education.

Relating to these human capital issues, the Kosovo government should pay particular attention to supporting universities in aligning the content and quality of higher education programmes to market needs. It should include the provision of specific trainings and information in its export promotion programmes or support similar programmes provided by business associations. Also, it should prioritise maintaining and fostering the firms' international exposure through financially supporting the export-promoting activities of business associations and/or through government-organised international economic forums in foreign countries and in Kosovo, as well as through supporting higher education institutions in establishing cooperation with foreign universities.

The key component of Kosovan trade policy has been trade liberalisation. Still, the trade deficit remains large with the majority of Kosovan firms considering tariff barriers as the decisive challenge for their internationalisation. Given this and the finding that obtaining quality certification is vital to improve the export performance of the surveyed firms, government export-promotion programmes should focus on supporting firms to identify and adapt specific quality standards. In doing so, it is advised that the government cooperate with international institutions currently analysing and supporting firms in obtaining quality certificates.

REFERENCES


Keiichiro, H., Otsuki, T., and Wilson, J. S. 2015. Food safety standards and international trade: The impact on developing countries’ export performance. In Food safety, market organization, trade and development (pp. 151-166). Springer, Cham.


and small firms during the recession. Radni Materijali EIZ-a (2): 5-37.


**Table A1:** Variable labels, variable description, and descriptive statistics

<table>
<thead>
<tr>
<th>Variables</th>
<th>Description</th>
<th>Mean</th>
<th>Standard deviation</th>
<th>Missing values</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exppropensity</td>
<td>Equals 1 if the firm exports, zero otherwise</td>
<td>0.06</td>
<td>0.24</td>
<td>43</td>
</tr>
<tr>
<td>Expintensity</td>
<td>Share of exports in total sales</td>
<td>1.50</td>
<td>8.81</td>
<td>47</td>
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<tr>
<td><strong>Management Characteristics</strong></td>
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<td></td>
</tr>
<tr>
<td>Pastgrowth_subjective</td>
<td>Equals 1 if the manager perceives that growth in the last three years has improved, zero otherwise</td>
<td>0.25</td>
<td>0.43</td>
<td>33</td>
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<tr>
<td>Expected performance</td>
<td>Equals 1 if the manager expects firm performance to improve in the future, zero otherwise</td>
<td>0.61</td>
<td>0.49</td>
<td>4</td>
</tr>
<tr>
<td>International exposure</td>
<td>Equals 1 if the manager has made business trips or had work experience abroad, zero otherwise</td>
<td>0.06</td>
<td>0.24</td>
<td>0</td>
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<td>Education_manager</td>
<td>Equals 1 if the manager has higher education, zero otherwise</td>
<td>0.40</td>
<td>0.49</td>
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<td>Training</td>
<td>Equals 1 if the firm has undertaken training, zero otherwise</td>
<td>0.33</td>
<td>0.47</td>
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<td>Age_manager</td>
<td>Manager’s age in years</td>
<td>37.38</td>
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<tr>
<td>Age_sqr_manager</td>
<td>Manager’s age squared</td>
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<td><strong>Firm characteristic</strong></td>
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<tr>
<td>Firm size</td>
<td>Number of employees three years ago, i.e. in 2010</td>
<td>1.08</td>
<td>1.16</td>
<td>49</td>
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<tr>
<td>Quality standard</td>
<td>Equals 1 if firm is obtaining or has obtained quality certification</td>
<td>0.14</td>
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<td>Import</td>
<td>Equals 1 if the firm imports, zero otherwise</td>
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<td>Education_employee</td>
<td>Share of employees with higher education</td>
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<td>0.34</td>
<td>18</td>
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<td>Professional management</td>
<td>Equals 1 if the firm is run by the manager, zero otherwise</td>
<td>0.29</td>
<td>0.45</td>
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<td>Firm age</td>
<td>Number of years since establishment</td>
<td>9.69</td>
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<tr>
<td>Firm legal structure</td>
<td>Equals 1 if the firm is registered as a limited liability company, zero otherwise</td>
<td>0.92</td>
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<td><strong>Environmental characteristics</strong></td>
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</tr>
<tr>
<td>Corruption</td>
<td>Equals 1 if firm considers corruption to be a very big or big barrier to doing business, zero otherwise</td>
<td>0.56</td>
<td>0.49</td>
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<td>Agglomeration</td>
<td>Equals 1 if the firm operates in a rural area, zero otherwise</td>
<td>0.93</td>
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<td>13</td>
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<td>Number of firms</td>
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