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Linking a multidimensional construct of networking self-efficacy to firm growth

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ABSTRACT

The purpose of the study is to develop a multidimensional construct of networking self-efficacy, empirically test its multidimensionality, and analyse its relationship to firm growth. The empirical study is based on data collected through a structured questionnaire that was emailed to entrepreneurs from small- and medium-sized firms in Slovenia. The developed scale was examined for convergent and discriminant validity with exploratory and confirmatory factor analyses. The predictive validity of the scale was measured by linking networking self-efficacy to firm growth. The results confirmed a three-dimensional structure of the networking self-efficacy construct and a positive relationship between networking self-efficacy and firm growth. The results of the study show that a stronger sense of networking self-efficacy can actually result in greater network support and consequently also better firm growth. Thus, entrepreneurs should be confident in their abilities to obtain and efficiently use resources acquired through their personal networks in order to exploit all the benefits of their social networks.

1. Introduction

Social networks are recognised as a significant source of support for the entrepreneur in the initial stages of creating a new venture (Aldrich & Zimmer, 1986; Birley, 1985; Jack, 2005), as well as in the later phases of a company's life cycle at the interorganisational level (Butler & Brown, 1994; Butler, Phan, & Hansen, 1990; Human & Provan, 1996; Larson, 1991; Peltier & Naidu, 2012; Perrow, 1992; Shaw, 2006; Stearns, 1996; Yanagida, 1992). External resources are especially significant for many small firms with limited resources whose business performance depends on their ability to acquire external resources, which are essential for their growth (Partanen, Moller, Westerlund, Rajala, & Rajala, 2008).

The purpose of networking is to share contacts, obtain resources (Aldrich, Rosen, & Woodward 1987) and to extend one's circle of trust (Dubini & Aldrich, 1991).

Dubini and Aldrich (1991) define networks as patterns of relationships between individuals, groups, and organisations and distinguish between personal networks and extended networks. According to the two authors in question personal networks are established around a particular entrepreneur while extended networks are focused on collectives.

Past research showed that there are three factors that determine the value of the network, i.e., the network structure, the network content, and the process of acquiring the network content (Hoang & Antoncic, 2003). Only an efficient and successful exchange of the network content enable entrepreneurs to access all the benefits that are embedded in social networks The process of acquiring resources from social networks is predominantly determined by entrepreneurs' skills like networking skills and skills related to trust development (Theingi, Purchase, & Phungphol, 2008).

The focus of this study is on the third factor that determines the value of the network, i.e., the process of acquiring the network content. First, we aimed to develop and define the concept of networking self-efficacy, which is related to self-efficacy and networking, and second by conducting an empirical research on a sample of Slovenian entrepreneurs we aimed to analyse the impact of networking self-efficacy on firm growth.

2. Entrepreneurial self-efficacy and firm performance

A recent research showed that the critical competencies determining the entrepreneurs' process of networking and the employment of their social networks represent the expertise, skills, and the attitude of the former (Brescher, 2010). The success of the entrepreneurs' networking activities is therefore largely determined by their behaviour and the effort that the former invest into developing their interpersonal and networking skills.

Since research has proved that the level of self-efficacy may determine the performance of individuals (Bandura, 1994), there has appeared an increasing interest in examining the role of self-efficacy in entrepreneurship over the last decades (for example, Barbosa, Gerhardt, & Kickul, 2007; Boyd & Vozikis, 1994; Bradley & Roberts, 2004; Chen, Greene, & Crick, 1998; DeNoble, Jung, & Ehrlich, 1999; Hmieleski & Baron, 2008; Markman, Baron, & Balkin, 2005; Wilson, Kickul, & Marlino, 2007; Zhao, Seibert, & Hills, 2005). The concept of entrepreneurial self-efficacy (E.S.E.) as a distinctive entrepreneurial personality trait was firstly introduced by Chen et al. (1998), who defined the characteristic as a strength of one's belief in his or her capabilities to successfully perform specific tasks and roles in the entrepreneurial process. The authors in question confirmed that the E.S.E. construct is formed by five factors, namely marketing, innovation, management, risk-taking, and financial control, thereby representing the main activities in entrepreneurship (Chen et al. 1998).

Since self-efficacy was found to be related to the individual's performance, entrepreneurship researchers examined the relationship between E.S.E. and firm performance (e.g., Baum, Locke, & Smith, 2001; Chandler & Jansen, 1992; Drnovsek & Glas, 2002; Forbes, 2005; Hmieleski & Baron, 2008; Segal, Borgia, & Schoenfeld, 2005; Westberger & Wincent, 2008). Several authors confirmed that there might exist a

positive relationship between E.S.E. and firm performance. For example, the benefits of higher E.S.E. were found to result in setting higher goals, showing stronger commitment and determination in achieving goals, achieving higher levels of revenues and employment growth, recognizing external events as opportunities, etc. (Baum et al., 2001; Boyd & Vozikis, 1994; Chandler & Jansen, 1992). Since in past the connection between entrepreneurs and opportunities was recognised as the central component of the entrepreneurial process (Aldrich & Zimmer, 1986), the relationship between E.S.E. and opportunity recognition may also explain the positive correlation between E.S.E. and firm performance.

According to the above presented findings, we assume that higher levels of self-efficacy in networking may also improve the performance of entrepreneurs within the networking process, which can indeed result in better firm performance.

3. Networking self-efficacy and the research hypotheses

In addition to the network structure and the network content, the process of network content acquisition significantly influences access to all of the benefits of social networks. Recent research showed that the critical competencies determining entrepreneurs' process of networking and the employment of their social networks include the expertise, skills, and the attitude of the former (Brescher, 2010).

Which set of skills is required to develop entrepreneurial social networks is another question often asked by scholars and entrepreneurs. Brescher (2010) found that interpersonal skills and networking skills crucially influence the success of networking activities. Next to the two skills in question, there are some other skills that relate to the development of trust. Therefore, skills such as the ability to communicate, listen, understand, delegate, solve problems and develop trust represent the key skills needed for successful networking. The majority of the skills mentioned are largely learned informally via interactions with one's family, friends, colleagues, and peers. However, these skills can also be additionally learned and enhanced over time, which is highly recommendable for all entrepreneurs (Brescher, 2010).

Since networking skills were found to determine not only the process of developing relationships but also the entrepreneurs' ability to exchange resources (Theingi et al., 2008), entrepreneurs should definitely try to reinforce those skills that facilitate interaction and communication with other individuals at both the individual and group levels.

The success of entrepreneurs' networking activities is therefore chiefly determined by their behaviour and the effort that the former invest in developing their interpersonal and networking skills. As one of the broadly analysed basic personality traits, self-efficacy was found to affect people's feelings, thoughts, behaviour, and self-motivation (Bandura, 1986). Therefore, this study focuses on the role of self-efficacy, especially E.S.E., in the process of networking.

The revision of a body of literature on entrepreneurial self-efficacy identified an important finding, which relates social networks to self-efficacy. In fact, past research proved that a supportive environment and the access to resources, information and skills significantly reinforce entrepreneurial self-efficacy (Chen et al., 1998). By

providing diverse resources and opportunities social networks can encourage the development of entrepreneurial self-efficacy. In addition to providing support in terms of resources, skills and knowledge, social networks also provide entrepreneurs with social persuasion via interpersonal relationships, which increases the level of E.S.E. (Boyd & Vozikis, 1994).

Based on the above findings we recognised the need to introduce a new concept in the field of entrepreneurship that connects self-efficacy to social networks. The concept we developed is named networking self-efficacy and it can be defined as a characteristic of entrepreneurs that influences the success of their networking activities.

The personal networks of entrepreneurs provide them with a wide range of diverse resources and opportunities; however, if entrepreneurs lack the skills to efficiently exchange the embedded resources, the network does not bring any value to them. Networking self-efficacy therefore refers to an entrepreneur's conviction about his or her capability to successfully perform networking activities and acquire network support.

Based on the literature review we identified three key elements of networking self-efficacy, i.e., networking skills, contact development ability, and support-acquisition ability (Bratkovic & Antoncic, 2015). The first networking self-efficacy element is represented by networking skills, since these are essential in order to successfully conduct networking activities (Brescher, 2010; Curras-Perez, Ruiz-Mafe, & Sanz-Blas, 2014; Theingi et al., 2008). This element might be defined as the range of skills necessary to develop personal and business contacts (Bratkovic Kregar & Antoncic, 2015).

The second element of networking self-efficacy is named contact development ability, which can be defined as the entrepreneur's conviction about his or her own abilities to develop and maintain relationships with the key resource and information providers. In fact, besides having the necessary networking skills it is also necessary to be convinced about their own abilities (Bratkovic Kregar & Antoncic, 2015). The latter is in accordance with the theory of self-efficacy (Bandura, 1994) that supports the relationship between a strong sense of self-efficacy and one's individual performance.

The third identified element of networking self-efficacy is named support-acquisition ability and can be defined as the entrepreneur's conviction about his or her own abilities to acquire the necessary support through personal and business contacts (Bratkovic Kregar & Antoncic, 2015). The number of benefits that the entrepreneur can access through his or her social networks depends mostly on the entrepreneur's abilities to acquire the network content (Theingi et al., 2008). Based on this finding, the current study argues that well-developed networking skills are by themselves insufficient for successful and efficient networking since individuals also need to know how to acquire support from a social network and how to exploit the support so acquired in the best possible way.

Based on the above findings and our expectations, the following hypothesis about the multidimensionality of the networking self-efficacy construct is formulated:

H1. Networking self-efficacy is a multidimensional construct, which includes three dimensions: networking skills, contact development ability, and support acquisition ability.

This hypothesis is then divided into three sub-hypotheses based on each construct dimension:

H1a. Networking skills represents a dimension of the networking self-efficacy construct.

H1b. Contact development ability represents a dimension of the networking self-efficacy construct.

H1c. Support acquisition ability represents a dimension of the networking self-efficacy construct.

It might be argued that the process of acquiring network content (in terms of support) is just as important as the very network content. The efficient employment of resources from personal networks crucially influences the network value (Noble, 2011) and, consequently, improves firm performance, so it is expected that a relationship exists between networking self-efficacy and firm growth.

Entrepreneurs with higher levels of networking self-efficacy may perceive networking as a challenging opportunity for the expansion of their own personal and business relationships and they therefore try to exploit all the benefits of their social networks. Entrepreneurs' strong conviction in their own abilities to achieve higher levels of performance was found to be related to their actual performance outcome (Segal et al., 2005). Similarly, one can assume that entrepreneurs with higher levels of networking self-efficacy will be more convinced about their own abilities to develop personal and professional relationships as well as to acquire the support embedded in their personal networks, which will in fact result in a more successful networking process. Consequently, the benefits of network support will lead to higher firm growth.

Based on the above findings and our expectations, we assume that networking self-efficacy will positively correlate with firm growth. Therefore, the following research hypothesis is suggested:

H2. The extent of networking self-efficacy will be positively related to the extent of firm growth.

The next section presents the research methodology in terms of sampling and data collection, measurement instruments, and methods of data analysis.

4. Research methodology

Empirical evidence supporting this study was gathered on a sample of small- and medium-sized Slovenian entrepreneurs. The data were collected with a structured questionnaire that was emailed to the selected firms.

4.1. Sampling and data collection

In order to empirically test the multidimensionality of the networking self-efficacy construct and analyse its relationship with firm growth, data about Slovenian entrepreneurs were collected. These were collected with an online survey administered in Slovenia. The data were gathered via a structured questionnaire that was emailed to the entrepreneurs of selected firms. The most significant entrepreneur from the firm was selected as the key informant. All respondents remained anonymous. The firms

were selected from the Slovenian Business Register. The database mentioned incorporates all the business entities that perform economic activities in Slovenia. On 25 October 2010 the overall database included 181,582 entities (Statistical Office of the Republic of Slovenia (SURS), 2010). Since prior research showed that entrepreneurs' personal networks may influence the growth of especially micro-sized companies, the sample population incorporated micro-sized firms (employing zero to nine employees) and small-sized firms (employing 10–49 employees) (Antoncic, Ruzzier, & Bratkovic, 2007). In October 2010, the sample population incorporated 142,813 entities (SURS, 2010). Since only a suitably large number of respondents enable the data analysis the questionnaire was addressed to all the micro-sized and small-sized firms whose email addresses were listed in the database mentioned, which incorporated the total amount of 32,143 firms. Since 9,982 e-mail addresses were found to be invalid or incorrect, the total amount of 22,161 firms were included in the survey. A total of 497 responses were received, which represents a 2.24% response rate. Although the response rate was low, prior research showed that it is not necessarily related to lower survey accuracy (e.g., Keeter, Kennedy, Dimock, Best, & Craighill, 2006; Visser, Krosnick, Marquette, & Curtin, 1996).

After the data screening 11 questionnaires were eliminated since these did not comply with the requirements regarding the target population. Thus, eight entrepreneurs classified their firms as medium-sized ones (i.e., employing 50–249 employees) whereas three of them classified their companies as big ones (i.e., employing 250 employees or more). Since the target population was represented by micro-sized and small-sized firms (i.e., employing 0–49 employees), the 11 respondents in question were eliminated from the sample. Thus, the total effective sample incorporated 486 relevant responses.

The average respondent was a 41-year-old married (81.9%) male (57.6%) with a university degree (52.5%) and with more than 10 or 20 years of work and entrepreneurial experience (30.2%). The majority of the entrepreneurs (76.96%) held top management positions, represented the major owners of the firms (68.8%), and functioned as the sole founders during the start-up process (66.7%). The average firm was characterised as a micro-sized company (employing zero to nine employees, 89.51%), which had been in existence between two and five years (41.8%), operated in the service industry (73.1%), and whose sales totalled EUR 500,000 or less (84.6%).

4.2. The measurement instrument

The measurement instrument included the newly developed measures of networking self-efficacy, measures of firm growth and information related to the socio-demographic characteristics of the respondents. Networking self-efficacy was measured with 23 items that were pre-tested by conducting individual interviews with five representatives of the target population.

The newly-developed networking self-efficacy scale is primarily based on the scales that were developed in Western economies (e.g., Arenius & Minniti, 2005; Barbosa et al., 2007; Chen et al., 1998; DeNoble et al., 1999; Erikson, 2002; Forbes, 2005; Zhao

et al., 2005), however, we reviewed also scales that were developed in eastern countries (i.e., Drnovsek & Glas, 2002; Xu, Lindsay, & O'Connor, 2010).

The prior research suggested the use of a relative and absolute measure of firm growth in order to reduce the company-size effect (Witt, 2004). Firm growth was thus assessed with three measures, namely sales growth, growth of employees, and growth of market share. Accordingly, the first item measuring firm growth, i.e., sales growth, was measured in terms of the average annual growth of sales over the preceding three years. The second item, i.e., the growth of employees, was measured in terms of the average annual growth in employee numbers over the preceding three years. The third item, i.e., market share growth, was measured in terms of growth of the firm's market share over the preceding three years (Antoncic, 2002). The dependent variable *Firm growth* was measured as the average of these three items.

4.3. The data analysis methods

The collected data were analysed using univariate and multivariate statistical methods. The networking self-efficacy scale that was developed and employed in this study was examined for its convergent and discriminant validity via exploratory and confirmatory factor analyses (Hair, Black, Babin, Anderson, & Tatham, 2006). The predictive validity was measured by analysing the relationship between networking self-efficacy and firm growth, which was performed with the multivariate technique of structural equation modelling (S.E.M.). The exploratory factor analysis was conducted with the analytical computer program S.P.S.S. statistical package (version 19). Before conducting the exploratory factor analysis, the correlation matrix was assessed so that the data could be tested for multicollinearity or singularity. This was necessary because representative factors can only be produced if the variables are sufficiently intercorrelated (Hair et al., 2006). The exploratory factor analysis was based on the number of factors that were anticipated on the basis of the research framework (i.e., three factors). The maximum likelihood extraction method and the oblique factor rotation method (i.e., oblimin rotation method) were employed in the exploratory factor analysis.

By comparing the construct items according to their corresponding construct dimensions we assessed the dimensionality of the construct. Items with cross-loadings or communalities below the threshold value of 0.2 which have an insufficient explanation were excluded. The retained standardised measurement items were employed in the confirmatory factor analysis which was conducted using the EQS software (version 6.2) (Bentler, 1995; Byrne, 2006). Items with high, positive, and significant coefficients were retained. The factor-loading value of 0.30 was selected as the minimum level enabling the interpretation of the structure.

Once the dimensionality of the construct was assessed, the convergence and divergence of individual dimensions was examined by assessing the fit of the confirmatory factor model and inter-dimension correlation. Further, by comparing nested models (i.e., the dimension-only model, single-common-factor model) with an overall model that includes both dimension factors and the single-common-factor the multidimensionality of the construct was tested.

5. Research findings

The research findings will be presented in terms of construct development, confirmatory factor analysis and the testing of the hypotheses.

5.1. Construct development

The appropriateness of the data was examined prior to the exploratory factor analysis of the networking self-efficacy items. Bartlett's test of sphericity showed that the correlation matrix is characterised by significant correlations (sig. at 0.000 for all items). The Kaiser-Meyer-Olkin (K.M.O.) measure of sampling adequacy had a value of 0.93, indicating a good level of adequacy of the data.

Based on our expectations about the number of networking self-efficacy dimensions we determined the number of factors that should be extracted in the exploratory factor analysis (three dimensions; i.e., the a priori criterion). The first criterion which is the latent root criterion or eigenvalue suggested the extraction of three factors if the a priori criterion was absent. The second criterion, the scree plot, indicated the potential extraction of two or three factors. The percentage of variance criterion suggested the extraction of two factors (with the total variance explained above 60%). Both solutions with two and three factors were examined. Based on a comparison of the results obtained with the factor analysis we decided to keep the three factor solution, since it produced more meaningful results than the two-factor solution. The latter supported our proposed research framework that assumed a three-dimensional structure of the networking self-efficacy construct. Afterwards, the communality index of each item was analysed in order to identify each item's contribution to the research. Eight out of 23 items were excluded from the analysis due to low communalities after the extractions and cross-loadings. The retained items' loadings ranged from 0.510 to 0.928 (see Table 1).

5.2. Confirmatory factor analysis and testing of the hypotheses

A confirmatory factor analysis was conducted in order to validate the findings of the exploratory factor analysis and examine the convergence of the networking self-efficacy dimensions (Antoncic, 2002). That analysis confirmed the results obtained with the exploratory factor analysis, indicating that networking self-efficacy is a three-dimensional construct. All construct's items had positive, high, and significant coefficients and all three dimensions' scales showed good reliability (i.e., Cronbach's alpha over 0.82 for all three dimensions, which is above the threshold of 0.60). The internal consistency of each networking self-efficacy dimension was measured with the Cronbach's alpha coefficient, while the model's goodness-of-fit indices (Normed Fit Index [N.F.I.], Non-Normed Fit Index [N.N.F.I.], Comparative Fit Index [C.F.I.], Standardised Root Means Square Residual [S.R.M.R.], Root mean Square Error of Approximation [R.M.S.E.A.]) were used to measure the convergence. The research results showed that all dimensions' items were positive, high, and significant, which indicated good convergence. Further, the model fit indices indicated also a good

Table 1. The networking self-efficacy dimension's item factor loadings.

| Items | Item code | Factors | | |
		CDA	NS	ASA
Contact development ability (C.D.A.)				
I can develop relationships with the individuals who can help me in business.	Q7_1	0.854		
I can develop relationships with the individuals who crucially influence the acquisition of financial resources for my firm.	Q7_2	0.829		
I can develop relationships with the individuals who crucially influence the acquisition of human resources for my firm.	Q7_3	0.734		
I can develop relationships with the individuals who crucially influence the acquisition of information for my firm.	Q7_4	0.717		
Networking skills (N.S.)				
In my free time I establish contacts that can be beneficial for my firm.	Q7_5		0.510	
Business events represent good opportunities for establishing new acquaintances.	Q7_6		0.764	
I like attending events that are aimed at establishing new contacts.	Q7_7		0.792	
When I attend an event, I always carry my business cards with me.	Q7_8		0.721	
Support acquisition ability (A.S.A.)				
I can obtain useful advice for my firm via various connections.	Q7_15			0.668
I can use useful information for my firm that can be acquired via various connections.	Q7_21			0.759
I can use useful advice for my firm that can be acquired via various connections.	Q7_22			0.810
I can obtain useful information for my firm via various connections.	Q7_23			0.928
I can obtain useful resources for my firm via various connections.	Q7_24			0.838
The support obtained through connections is beneficial for my firm.	Q7_25			0.912
Through my connections I can reach the individuals who I do not know personally (e.g., friends of my relatives).	Q7_26			0.820

Notes: N = 486.
Extraction method: Maximum likelihood.
Rotation method: Oblimin with Kaiser Normalization (absolute factor loadings equal or higher than 0.2 are displayed).
Variance explained: 74.586%.

model fit for each dimension of the networking self-efficacy construct. A summary of the results regarding each networking self-efficacy dimension is presented in Table 2.

The convergent and discriminant validity of the networking self-efficacy dimensions were tested in the networking self-efficacy construct structural model. The construct's dimensions were modelled as first-order latent constructs and correlated with each other. Cronbach's alpha was used to assess the reliability of the specific summated scales. The three networking self-efficacy dimensions were modelled as first-order latent constructs and were correlated with each other. The results showed that all coefficients were positive, high, and significant, while the model fit indices showed a moderately good model fit (N.F.I. 0.903, N.N.F.I. 0.899, C.F.I. 0.916, S.R.M.R. 0.044), with the exception of R.M.S.E.A. which was above the threshold value of 0.05 (0.109), thereby indicating a poorer model fit. All dimensions showed good composite reliability (above 0.82). The variance extracted was above the threshold value of 0.50 for all three dimensions, thus indicating good convergence. The correlations among the dimensions were all positive and significant, with two of them being slightly above the threshold value of 0.70 (0.695, 0.704, 0.736). A summary of the results is presented in Table 3.

In order to test the multidimensionality of the networking self-efficacy construct it was necessary to compare the relative contributions of two models: (1) the single-common-factor model; and (2) dimensions-only model. The first model is based on the assumption of the unidimensionality of the networking self-efficacy concept and it includes only one common networking self-efficacy first-order factor. The second model represents the networking self-efficacy dimensions-only model, which is based on the assumption of the non-unidimensionality of the networking self-efficacy concept. By nesting these two models into one model and examine the Chi-square difference and the values of the Parsimony Fit Index it was possible to make a comparison of their relative contributions (Antoncic, 2002). The results showed that the two Chi-square differences were significant, indicating that both models may contribute to the explanatory power. On the other hand, the values of the Parsimony Fit Index showed that the dimensions-only model had a better model fit relative to the single-common-factor model. The latter indicates that the single-common-factor model might be inferior to the dimensions-only model, which confirms our assumption that networking self-efficacy is a multidimensional construct.

The predictive validity of the networking self-efficacy scale was measured by analysing its impact on firm growth (see Figure 1). In support of Hypothesis 2, which predicted a positive relationship between networking self-efficacy and firm growth, the coefficient for this relationship was found to be positive, substantial, and significant (i.e., coefficient of 0.23, standardised coefficient of 0.13). Although the strength of the observed correlation is relatively weak, it is positive and significant. Therefore, Hypothesis 2 can be supported.

Based on the research results presented above we can confirm both Hypothesis 1 which predicted that networking self-efficacy is a multidimensional construct consisting of three dimensions (contact development ability, networking skills, and support acquisition ability) and Hypothesis 2 predicting a positive relationship between

Table 2. Networking self-efficacy dimensions' scale convergence.

Dimension	No. of items	Cronbach alpha	Range of standardised coefficients*	Model fit indices				
				N.F.I.	N.N.F.I.	C.F.I.	S.R.M.R.	R.M.S.E.A.
Contact development ability	4	0.890	0.73 to 0.88	0.966	0.905	0.968	0.032	0.145
Networking skills	4	0.825	0.64 to 0.87	0.994	0.992	0.997	0.016	0.043
Support acquisition ability	7	0.949	0.81 to 0.89	0.947	0.928	0.952	0.038	0.133

Notes: *All non-standardised coefficients are positive, high and significant (sig. < 0.05).

Table 3. The networking self-efficacy construct convergent and discriminant validity.

Dimension	Overall model*		Correlations**		
	Composite reliability	Variance extracted	C.D.A.	N.S.	A.S.A.
Contact development ability	0.890	0.680	1	0.695	0.736
Networking skills	0.772	0.562	0.695	1	0.704
Support acquisition ability	0.8950	0.728	0.736	0.704	1

Notes: *Goodness-of-fit-indices: N.F.I. = 0.903, N.N.F.I. = 0.899, C.F.I. = 0.916, S.R.M.R. = 0.044, R.M.S.E.A. = 0.109; **All the correlations were significant at 0.05.

networking self-efficacy and firm growth. A summary of the results is presented in Table 4.

In the next section, the key findings and contributions are discussed, limitations are described, and future research opportunities are suggested.

6. Conclusion and discussion

In this study the concept of self-efficacy was applied to the field of entrepreneurial networks and related to entrepreneurs' networking activities. Since the prior research indicated that a relationship existed between E.S.E. and firm performance, we aimed to determine whether a positive relationship also exists between networking self-efficacy and firm performance.

6.1. Contribution of the study

The findings of this research provide an important contribution to knowledge about entrepreneurial networks, networking self-efficacy and its relationship with firm growth, which is relevant to both science and practice. The main contribution is the development of the multidimensional networking self-efficacy construct. While in past research self-efficacy was successfully applied in the field of entrepreneurship, our aim was to introduce the concept of self-efficacy also in the field of social networks. As it was predicted in our research framework, a three dimensional structure resulted to most appropriately describe the construct of networking self-efficacy (i.e., networking skills, contact development ability, and support acquisition ability). The three-dimensional construct represents a consistent measure of entrepreneurs'
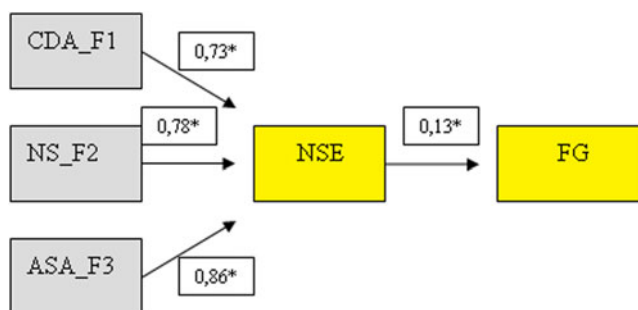
Figure 1. The networking self-efficacy construct and the linkage to firm growth.

Notes: *The coefficients significant at 0.05 level.

C.D.A._F1 – Contact development ability, N.S._F2 – Networking skills, A.S.A._F3 – Support acquisition ability, N.S.E. – Networking self-efficacy, F.G. – Firm growth.

Table 4. The summary of the findings: The empirical testing of the hypotheses.

Hypotheses	Dependent variable	Independent variable	Standardised coefficient	Result
H1a	Networking self-efficacy	Networking skills	0,78*	Supported
H1b	Networking self-efficacy	Contact development ability	0,73*	Supported
H1c	Networking self-efficacy	Support acquisition ability	0,86*	Supported
H2	Firm growth	Networking self-efficacy	0,13*	Supported

Notes: *The coefficients significant at 0.05 level.

networking self-efficacy and provides a research framework for future research in the field of entrepreneurial networks.

The next important contribution is related to the relationship between an entrepreneur's networking self-efficacy and firm performance. In order to analyse the predictive validity of the networking self-efficacy construct, we examined the relationship between an entrepreneur's networking self-efficacy and firm growth. Based on past research about the importance of E.S.E. for a successful firm performance, we assumed that an entrepreneur's conscious conviction about their abilities to acquire support through their personal and business relationships is crucial for the higher efficacy of their networking activities. A strong sense of networking self-efficacy may increase entrepreneurs' efficacy in using their personal networks. Therefore, in this study we predicted a positive relationship between an entrepreneur's networking self-efficacy and firm growth, which was also supported by the research results. Accordingly, higher levels of an entrepreneur's networking self-efficacy can contribute to firm growth.

6.2. Practical implications

The efficient employment of resources from personal networks crucially influences the network value, which can indeed influence a firm's performance. Entrepreneurs with a stronger sense of networking self-efficacy may perceive networking as a challenging opportunity to compensate for the lack of resources, capabilities, and knowledge needed for firm growth and development. A stronger sense of networking self-efficacy makes entrepreneurs more convinced in their abilities to acquire the support embedded in their personal networks, which can

actually result in greater network support and consequently also better firm growth.

Based on our research findings, we may be able to suggest that entrepreneurs should be self-confident in their abilities to obtain and efficiently use the information and resources acquired through their personal networks in order to exploit all benefits of their social networks. Networking self-efficacy can have also social implications, since it may raise creation of the new wealth in the society.

6.4. Limitations of the study

Some limitations of this study need to be noted. The data were collected in a single country – Slovenia. The study is limited to only one, yet important, firm performance variable (firm growth). In order to reduce the company-size effect, a relative and absolute measure of firm growth was used. Next, a cross-sectional study design was employed. For the cause-and-effect relationship between networking self-efficacy and firm growth, it may be more appropriate to use a longitudinal study design. Further, the measures used in this study are exclusively perceptual. However, perceptual measures were appropriate in this study because they were specific and asked about an entrepreneur's judgement of and conviction in their capabilities for performing specific networking activities. Despite these limitations, we believe that the selected study design and methods were appropriate for achieving the study's goals and for making some important contributions.

6.5. Future research opportunities

Future research on entrepreneurial networks should be directed to an in-depth analysis of the relationship between an entrepreneur's networking self-efficacy and firm performance. In future research, in addition to firm growth, other important dependent performance variables such as firm profitability, new value creation, internationalisation, and the entrepreneur's satisfaction with firm performance should be used. Moreover, a detailed analysis of the relationship between network multiplexity and the entrepreneur's networking self-efficacy would provide additional in-depth insights into the role of the entrepreneur's networking in firm growth. Finally, studies employing a longitudinal research design and comparing findings cross-culturally could yield extra insights into the research area of entrepreneurial networks.

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